

RHYTHM

DON ELLIS

R H Y T H M

A new system of rhythm based on the ancient Hindu techniques.

By

DON ELLIS

TABLE OF CONTENTS

Introduction	page	1
The Ragas		2
General Instructions		11
Chapter 1		
Basic Rhythmic Exercises		12
3 3 3 3 4		13
Supplemental Patterns		16
5 5 3 3		19
7 7 2		25
Double Length 5's		27
Double Length 7's		34
Chapter 2		
Basic Rhythmic Exercises Continued		39
Triplets, Quintuplets and Septuplets		40
Triplets		43
Quintuplets		45
Septuplets		47
Optional Exercises		
Chapter 3		
Basic Ways of Dividing 5, 7 and 9		48
5		48
7		51
9		55
Chapter 4		
How To Count Cross Rhythms Against 4/4 (Or Any Steady Pulse)		63
Chapter 5		
"Keeping Tal"		64

Chapter 6	68
Syncopation	68
4's	69
3's	70
5's	71
7's	74
Chapter 7	79
Advanced Counting Exercises	79
Chapter 8	84
Superimpositions	84
vs. 2	84
vs. 3	86
vs. 4	87
vs. 5	87
vs. 6	89
vs. 7	89
vs. 8	90
vs. 9	91
Chapter 9	93
Tihais	93
Chapter 10	99
Combining Talas	99
Chapter 11	100
Switching Subdivisions	100
Chapter 12	103
Advanced Rhythmic Rows	103
Supplementary Examples of Compositions	106

I N T R O D U C T I O N

Last year I got the shock of my life. I began studying Indian music, and found that I (in particular) and we (including all western instrumentalists and composers in general) know only the barest rudiments of rhythm. Especially as far as performance of intricate rhythms goes.

I learned that there is a rhythmic system (the Hindu) so complex and advanced that the average professional western musician stumbles over even the most basic exercises.

I learned that there is no reason XXXX/XX for this to be so, only the fact that intricate rhythms are not heard or taught in our culture.

I learned the remedy. From the teachings of HARI HAR RAO, and GAYATHRI RAJAPUR, I have been able to figure out exercises that will benefit every musician and composer.

---*****

Once one of my students asked me what he could do to learn to play jazz in 7/4, 9/4 and 5/4. At that time all I could tell him was to practice the blues in those times until they felt comfortable. But then he asked: "isn't there some more I can do?"

It is to answer this question that this book was written.

Here is the "more". The road to gaining a complete mastery of rhythm.

It will take work. But it is exciting work. The benefits begin accruing from the first exercise attempted.

The book itself is more than just a text for the improving jazz musician. It is a method for classical instrumentalists, conductors and composers to gain mastery of the complex rhythmic configurations that become more numerous in modern classical music each day.

It is also a method for the music teacher. The simpler exercises work even for young children. A creative elementary school teacher could devise interesting rhythmic ideas for performance by his children's "rhythm bands."

The exercises and ideas will benefit any musician whether beginner or advanced virtuoso.

T H E R A G A S

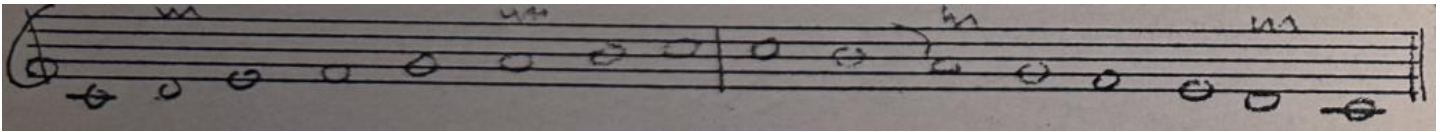
Since this book is based on ancient Hindu rhythmic techniques, it is proper to include a few RAGAS, so that the student can practice the exercises in more than just a major and minor scale. This will pay dividends by improving the ear and mind and in increasing instrumental technique.

A RAGA is similar to our major and minor scales or modes, but is at the same time much more. According to the traditional system, there are 72 MELAS or parent scales from which the various RAGAS are derived. There are specific ornamentations on certain notes, and the sequence in ascending and descending is important. In addition each RAGA has certain notes which must be emphasized, and they are traditionally associated with particular moods and times of the day. The pitches do not correspond to our tempered scale.

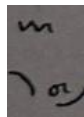
It is not our purpose in this book to get involved in all the technical aspects of RAGA; however, it will be very beneficial and interesting to practice the exercises given in a western approximation of some of the RAGAS.

The exercises are all written in the "KEY OF C MAJOR" which corresponds somewhat to the South Indian RAGA "SHANKARABHARANA":

SHANKARABHARANA



There is ornamentation (GAMAKA) in the RAGA:



= a type of fast turn which is impossible to notate.

= slides to and from the notes (usually from the pitch in the RAGA just above or below the note).

Unless one so wishes it is not necessary to use the ornamentation.

The South Indian names of the notes are:

SA (SHADJA) RI (RISHIPA) GA (GANDHARA)

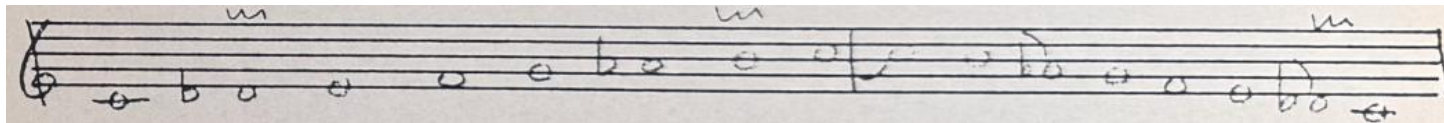
MA (MADHYAMA) PA (PANCHAMA)

DA (DHAIVETA) NI NISHA-ADA

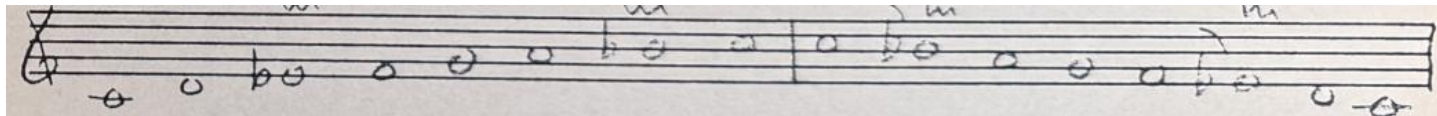
Only the abbreviations are sung.

Some other South Indian RAGAS are:

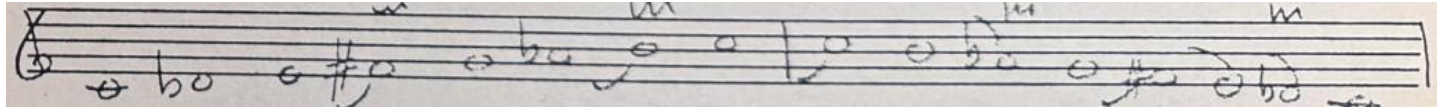
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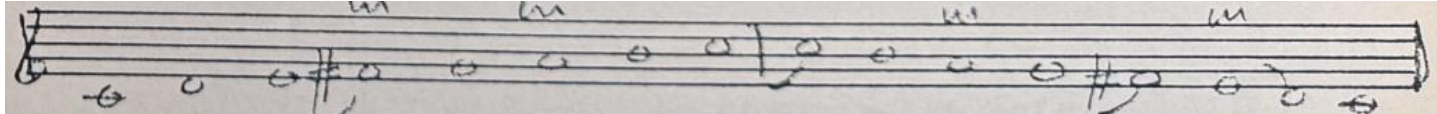
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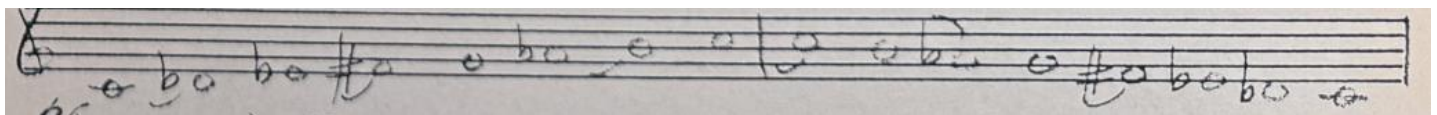
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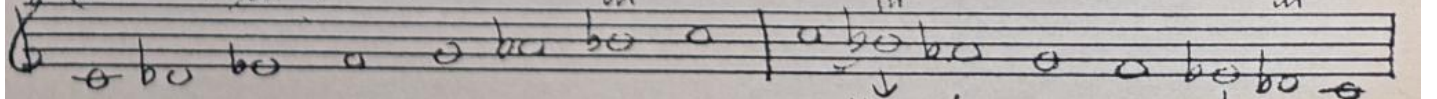
4. KALYANI



5. SHUBHAPANTUVARALI



6. HANUMA TODI



$\frac{1}{2}$ tone low

$\frac{1}{2}$ tone low

Notice that by raising and lowering the various notes of the scale, you may make up your own "RAGAS."

For now pick one or two RAGAS you like and practice the exercises in these RAGAS. Transpose the exercises to every note of our chromatic scale. (Do the exercise in the RAGA of your choice on C, then C#, D, etc.)

Eventually you should play all the exercises in all the RAGAS on each note of the chromatic scale.

To give you additional practice to familiarize yourself with the RAGA before starting the rhythmic exercises, here are three excellent exercises for just this purpose, taught to me by my South Indian Teacher, GAYATHRI RAJAPUR:

I SARALAVARISI

* X ADI TALA 2 0 3 0 X 2 0 3 0

1. SA RI GA MA PA DA NI SA

X 2 0 2 3 0

double speed

X 2 3 0

quadruple speed

Note: all the following to be done in double
and quadruple speed also.

2.

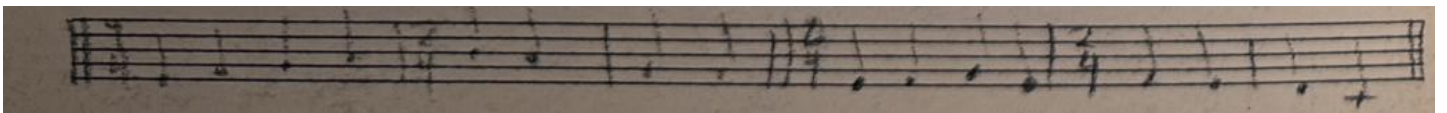
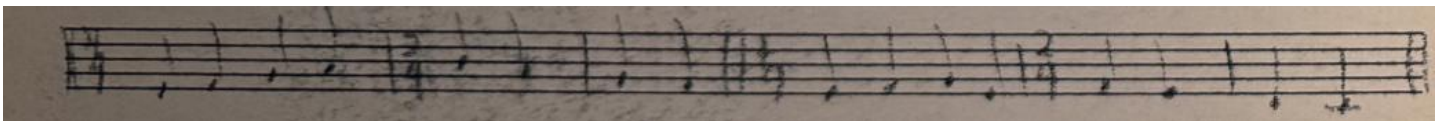
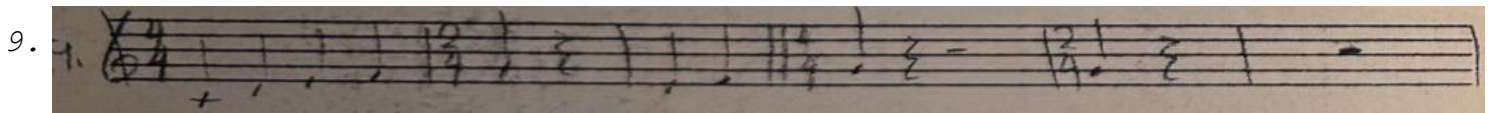
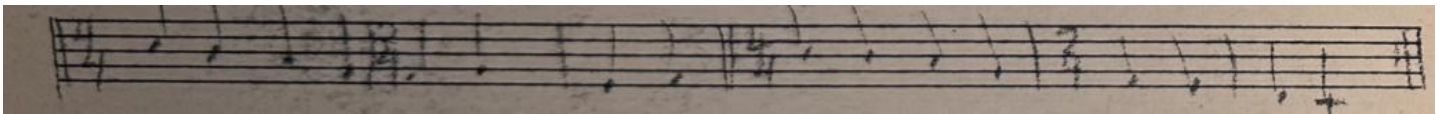
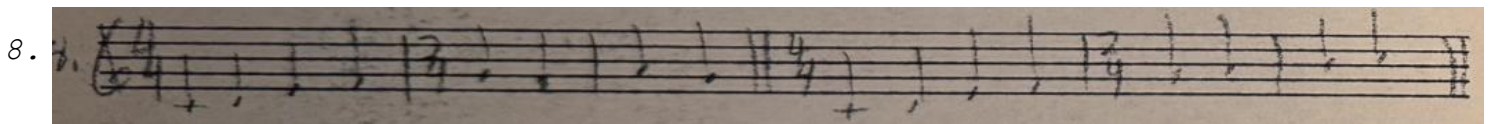
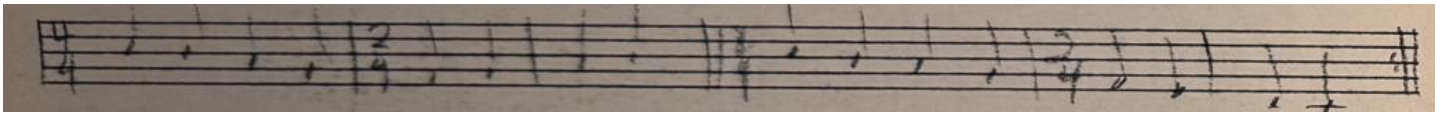
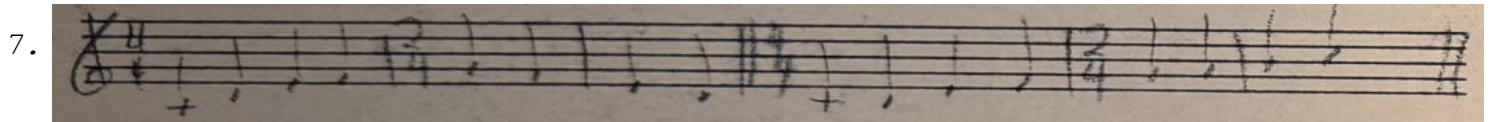
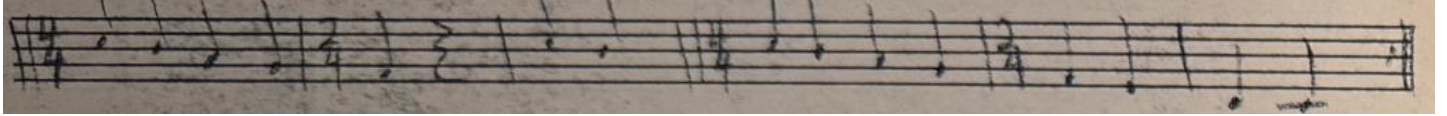
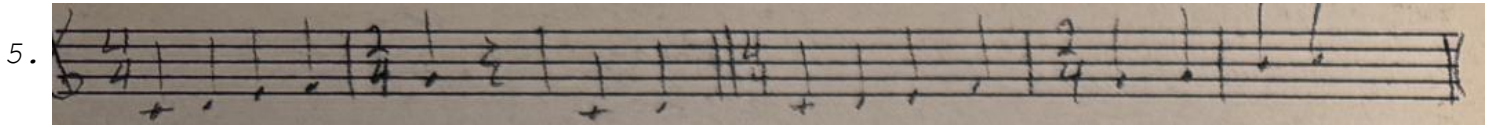
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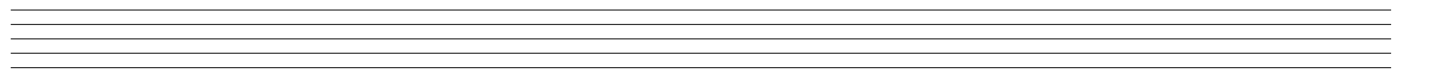
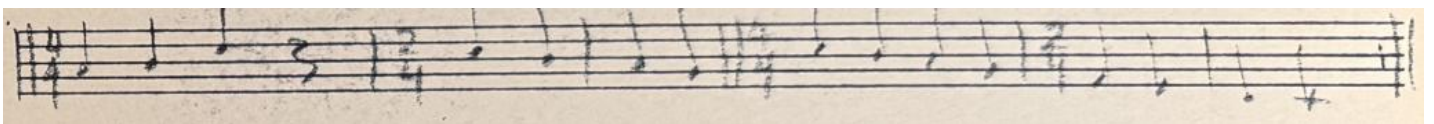
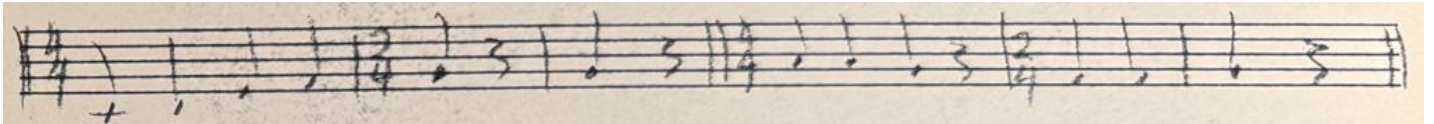
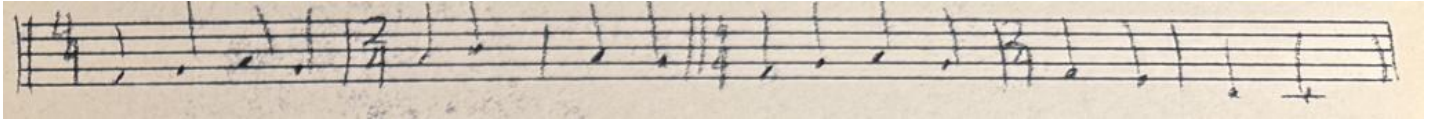
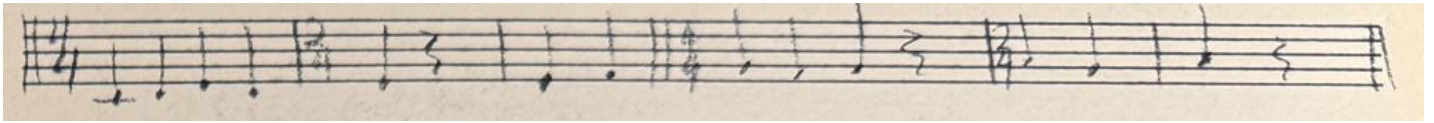
4.

* See explanation of TALAS, chapter 5

MAESTRO

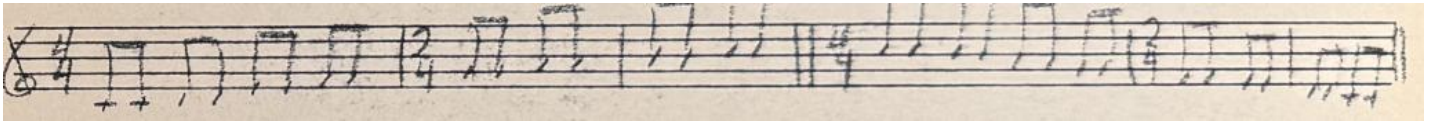
** Sing either Indian Syllables, solfeggio, or letter names.



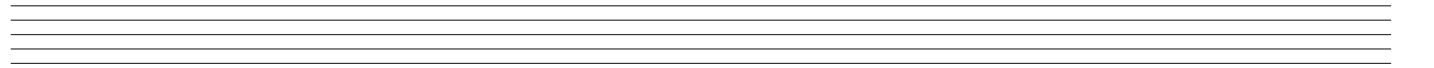
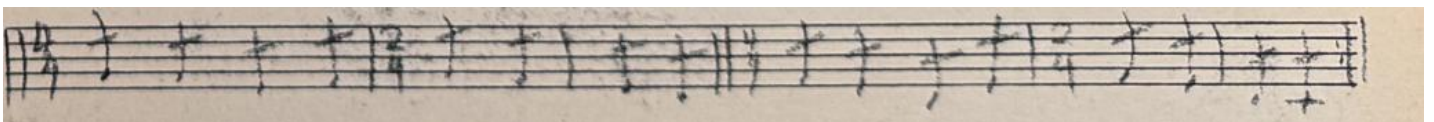
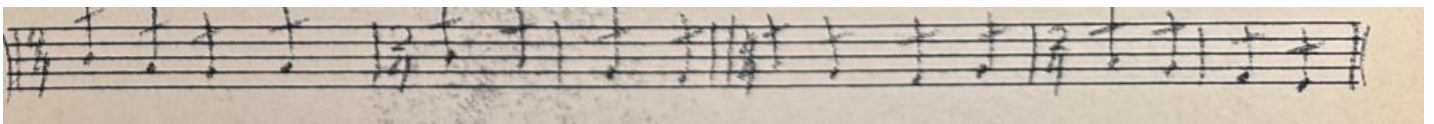
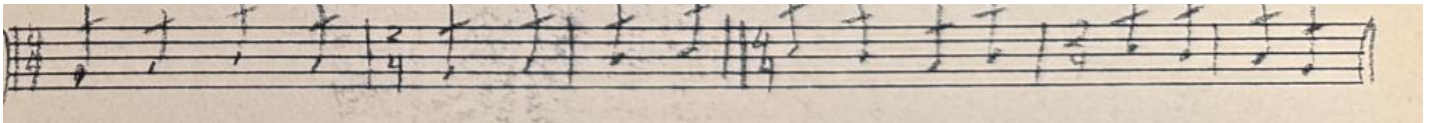
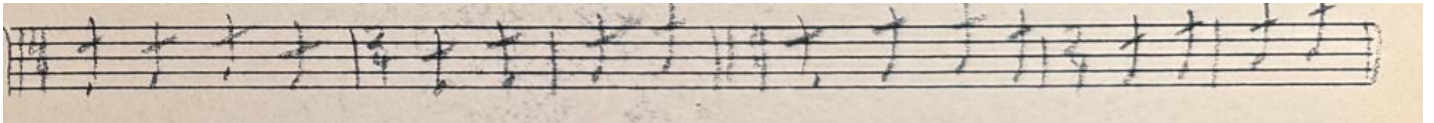
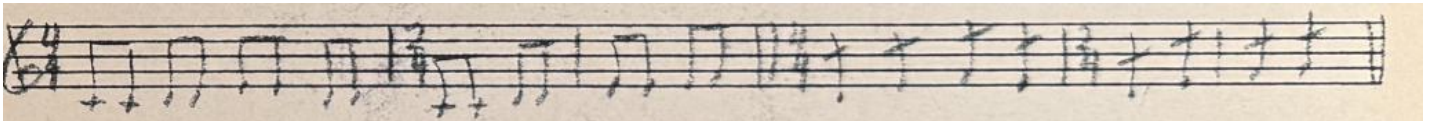
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II JANTIVARASE

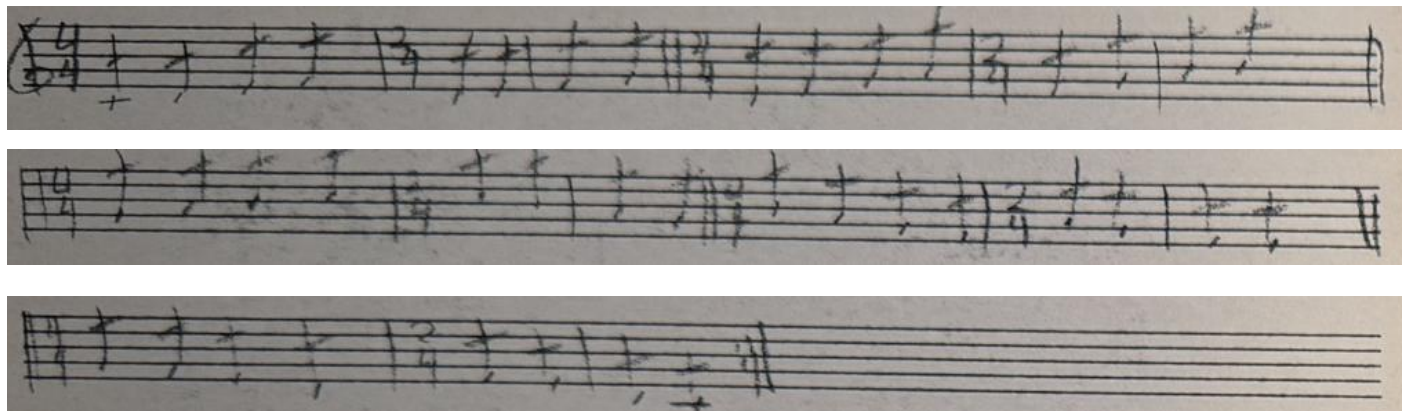
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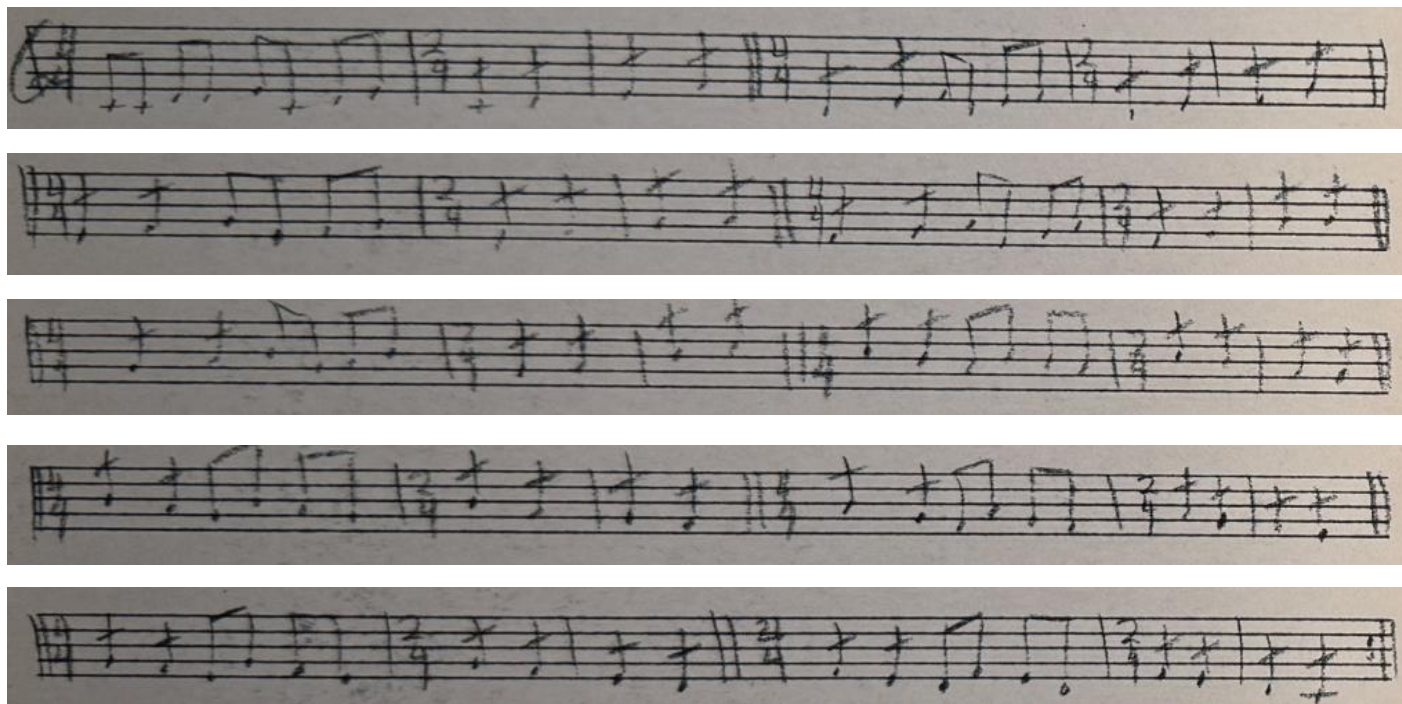
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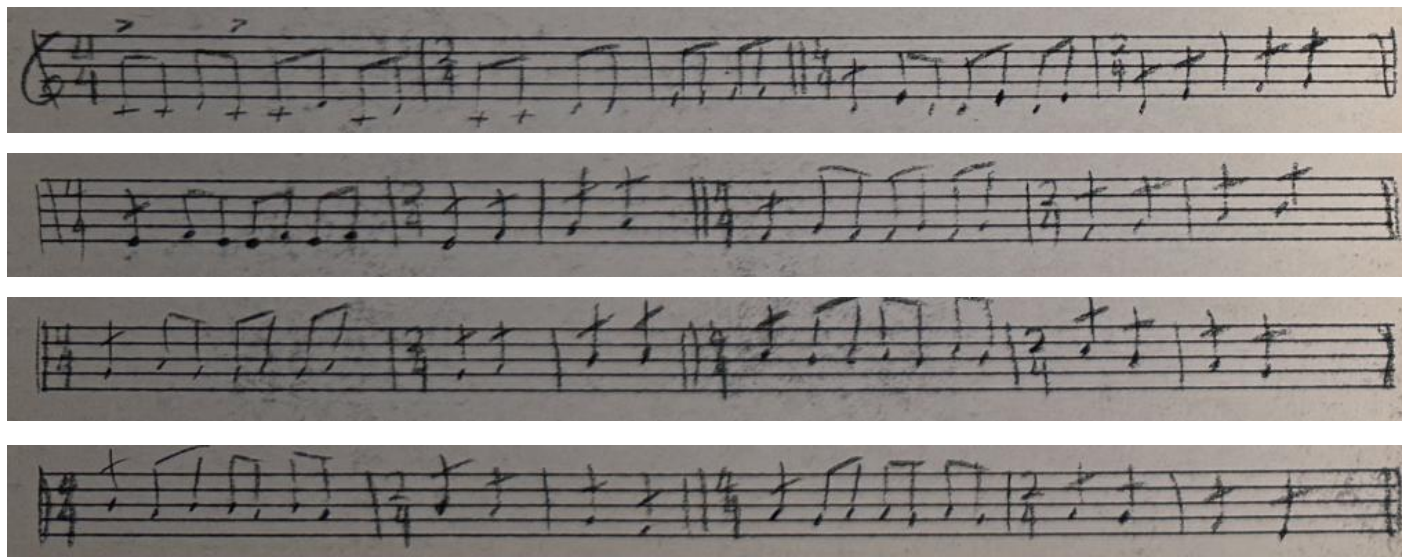
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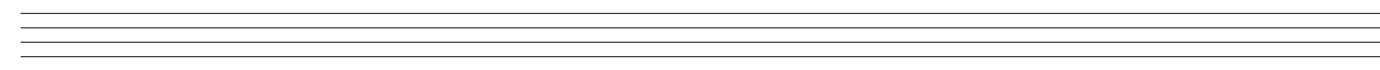
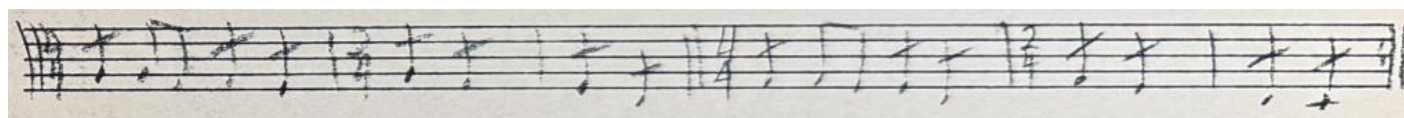
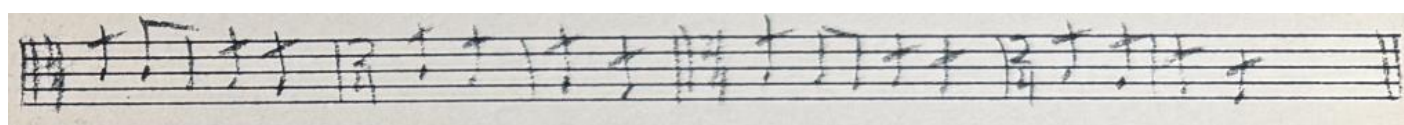
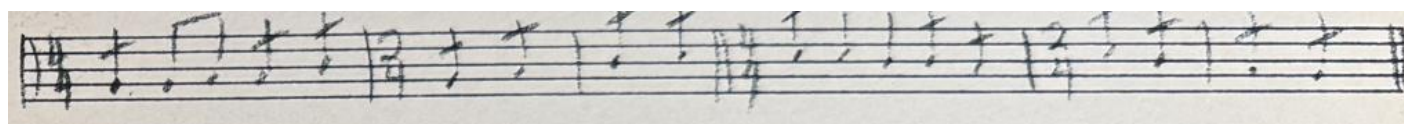
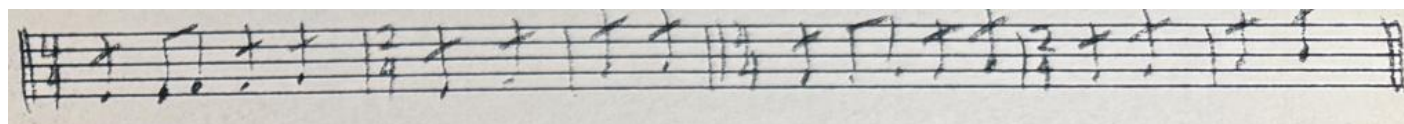
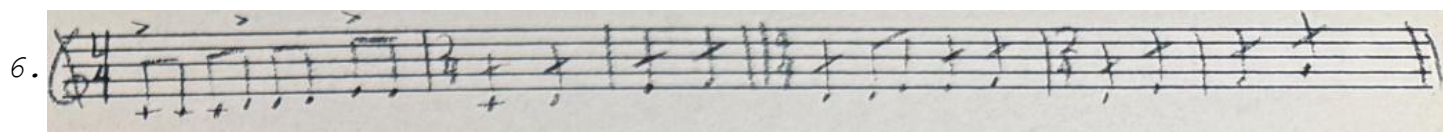


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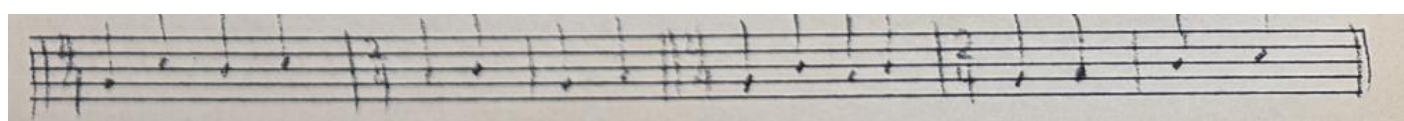
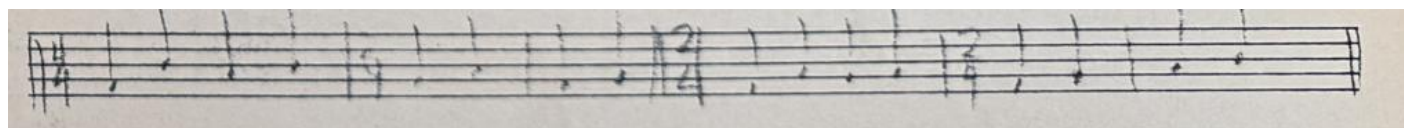
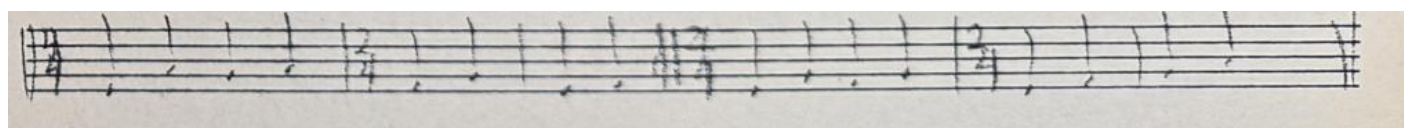
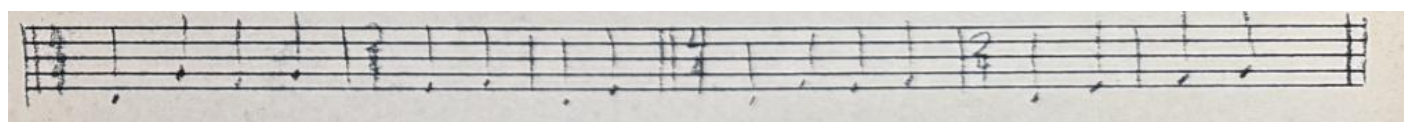
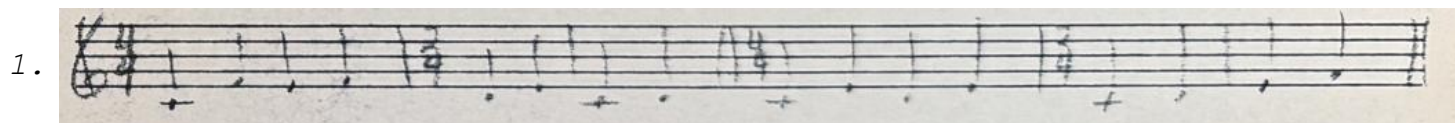


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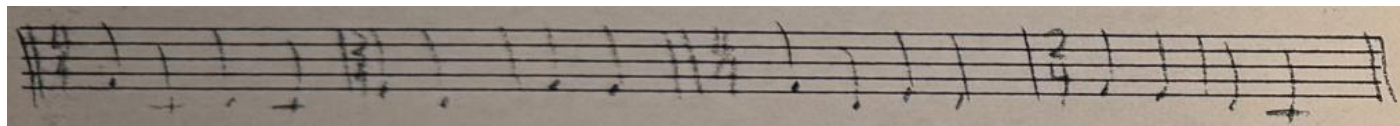
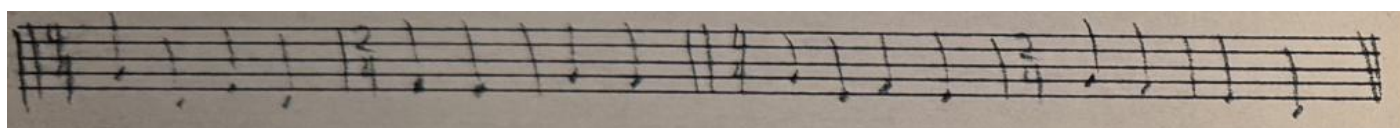
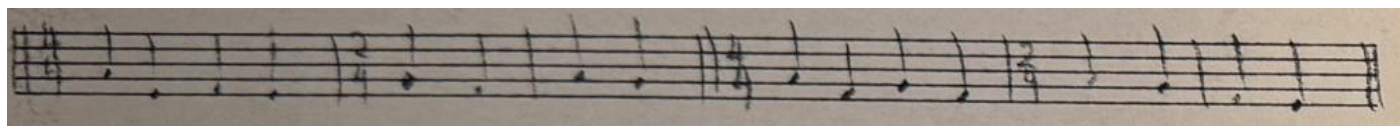
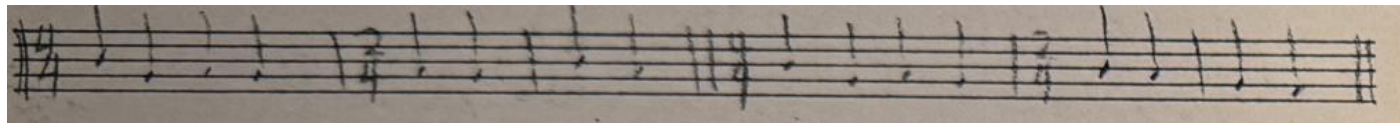
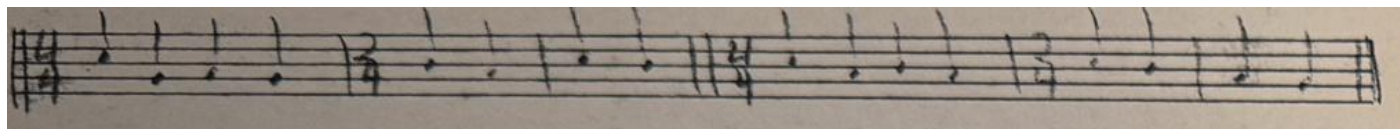


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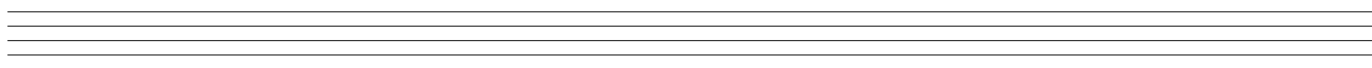
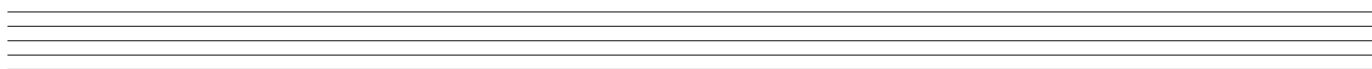
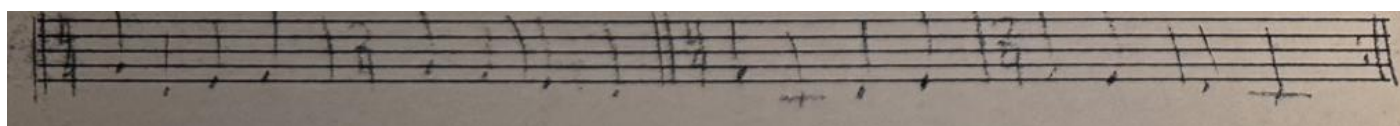
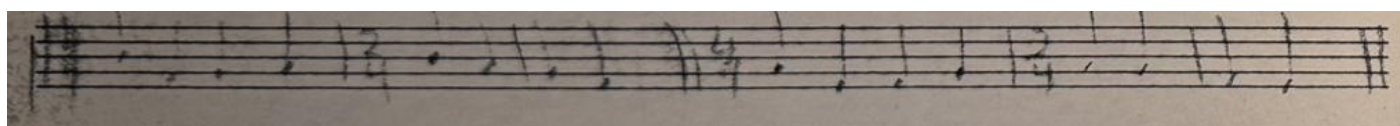
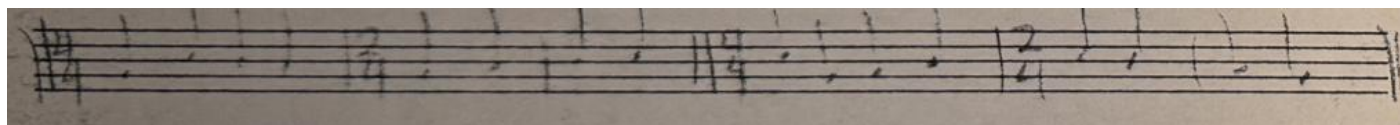
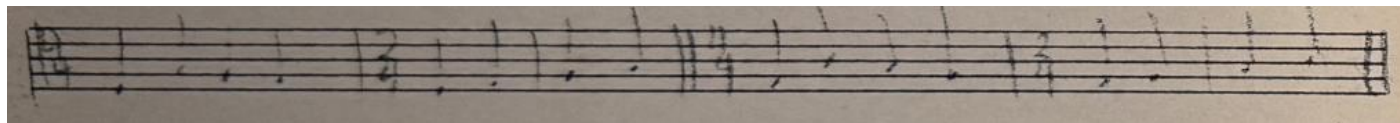
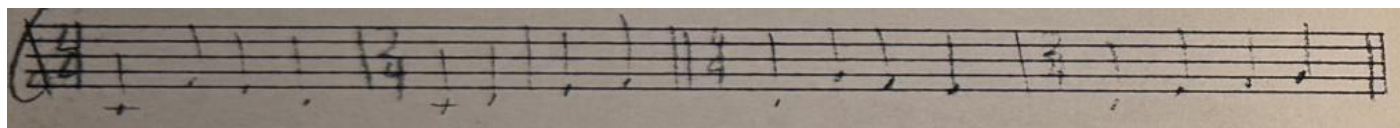


III

1. cont



2.



G E N E R A L I N S T R U C T I O N S

The fastest progress will be made by practicing the exercises a little each day. You will be amazed at how easy something will be to do one day that you had only struggled with the day before.

Always work each individual exercise out in your mind first before attempting to execute it. Then when you do play it, you should do it from memory. This is the only way to really make the rhythm a "part of you." Simply reading it out of the book, no matter how well you do it, will not be of nearly as much benefit.

When you have your exercises for the day memorized, you will find it beneficial to sing them to yourself in spare moments, while waiting for the bus, driving the car, and so on.

The chapters and exercises are generally arranged in a progressive order, but you may skip around if you wish.

Wind instrumentalists will find that they can make use of the time they are resting their embouchures in their daily practice schedule to work out these exercises mentally.

~~INTELLI~~ Wind instrumentalists should also tongue the melodic exercises as well as slur them. The recommended tongueings for fast tempos are:

groups of 2's : TA KA
 groups of 3's : TA KI TA
 groups of 5's : TA KA, TA KI TA
 groups of 7's : TA KI TA, TA KA, TA KA
 groups of 9's : TA KA, TA KA, TA KA, TA KI TA

Every student should make up his own variations of the exercises given, and improvise in each particular pattern.

CHAPTER 1

BASIC RHYTHMIC EXERCISES

If we take 16 beats and divide them up into groups of 3's, we have 4 groups of 3's with 4 left over:

3 3 3 3 4 =16

This extra four can be placed at different positions within the 3's by moving it over one place:

3 3 3 3 4
 3 3 3 4 3
 3 3 4 3 3
 3 4 3 3 3
 4 3 3 3 3

To practice this chapter, use the following routine:

1) CLAP the hands on one of each bar and tap the little finger of the right hand against the palm of the left for the second beat, the fourth finger for the third beat, and the third finger for the fourth beat.

At the same time count the numbers of line a/ out loud. When this is comfortable, keep clapping the same way (do not change the speed of the quarter note), and do the double time, and then the quadruple time.

2) Repeat the process above using the syllables of line b/.

3) Line c/ is the syllables (BOLES) for the Indian TABLA drums. Percussionists say this line, and then play it---approximating the sounds in your own way on your drums (keep your bass drum in 4 and your high hat on 2 and 4).

Instrumentalists and singers sing either line d/ the Indian syllables for the pitches, or line e/ our solfeggio. Or, if you prefer, sing the letter names of the pitches.

Work on the single, double and quadruple speeds.

Before you actually do each step of the above, get the phrase in your mind by doing it silently, and then perform it from memory--without looking.

I repeat, this is absolutely necessary to make these rhythms a "part of you."

These exercises can be fun for groups of musicians to do:

- a) part of the group can sing or play the drone (tonic and fifth),
- b) and part of the group should clap and keep time (the TALA), and
- c) the rest sing or play the exercise.

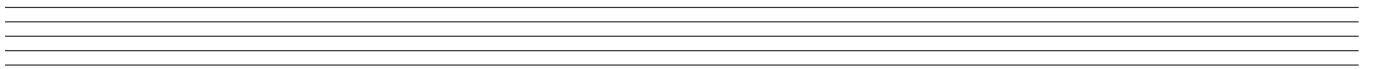
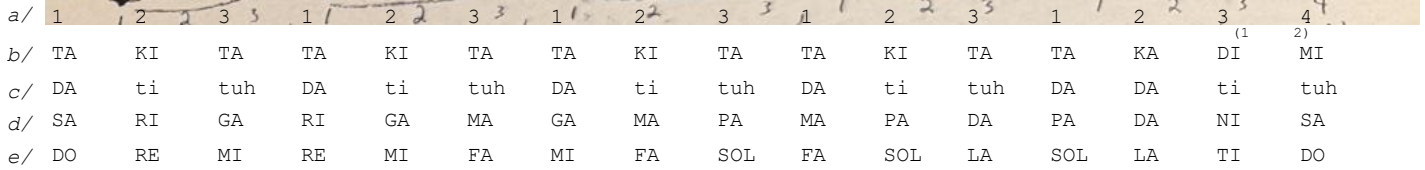
13

3 3 4 3 3

3 4 3 3 3

$$\begin{array}{r} 4 \quad 3 \quad 3 \quad 3 \quad 3 \\ \hline \end{array}$$

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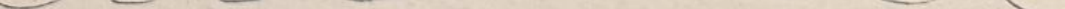
Handwritten musical notation for the first staff of 'The Rose Tree'. The staff is in treble clef and contains a melody with eighth and sixteenth notes, including slurs and accents.

T K T T K T T K T T K T T K D M

S R G R G M G M P M P D P D N S

D R M R M F M F S F S L S L T D

quadruple



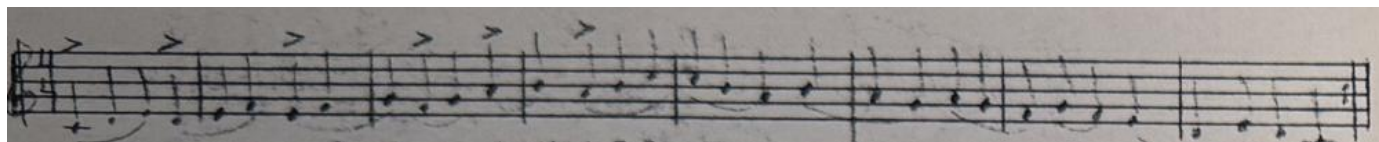
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 4

T K T T K T T K T T K T T K D M

S R G R G M G M P M P D P D N S

D R M R M F M F S F S L S L T D

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1 2 3 1 2 3 1 2 3 1 2 3 4 1 2 3

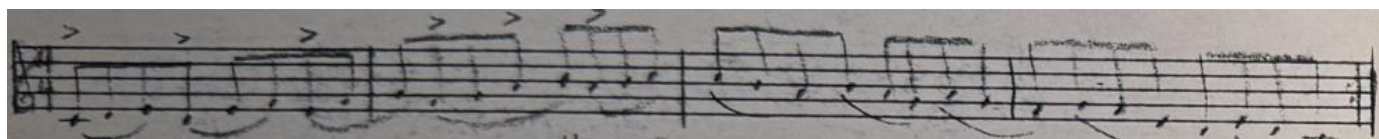
TA

(1 2)

DA

SA

DO



1 2 3 1 2 3 1 2 3 1 2 3 4 1 2 3

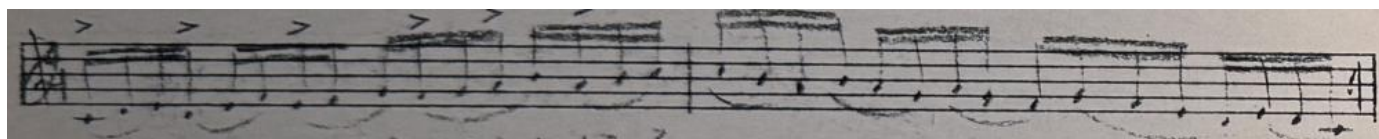
TA

(1 2)

DA

SA

DO



1 2 3 1 2 3 1 2 3 1 2 3 4 1 2 3

TA

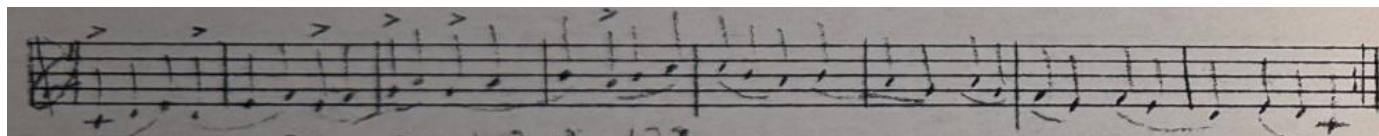
(1 2)

DA

SA

DO

33433



1 2 3 1 2 3 1 2 3 4 1 2 3 1 2 3

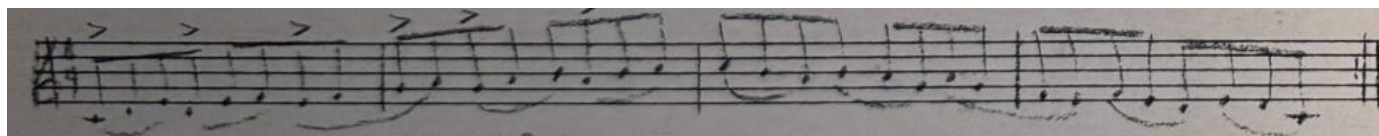
TA

(1 2)

DA

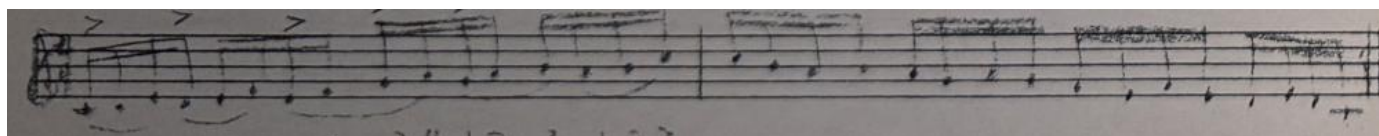
SA

DO



1 2 3 1 2 3 1 2 3 4 1 2 3 1 2 3

(1 2)



1 2 3 1 2 3 1 2 3 4 1 2 3 1 2 3

(1 2)

34333

1 2 3 1 2 3 4 1 2 3 1 2 3 1 2 3

TA (1 2)

DA

SA

DO

1 2 3 1 2 3 4 1 2 3 1 2 3 1 2 3

TA (1 2)

DA

SA

DO

1 2 3 1 2 3 4 1 2 3 1 2 3 1 2 3

TA (1 2)

DA

SA

DO

43333

1 2 3 4 1 2 3 1 2 3 1 2 3 1 2 3

TA (1 2)

DA

SA

DO

1 2 3 4 1 2 3 1 2 3 1 2 3 1 2 3

TA (1 2)

DA

SA

DO

1 2 3 4 1 2 3 1 2 3 1 2 3 1 2 3

TA (1 2)

DA

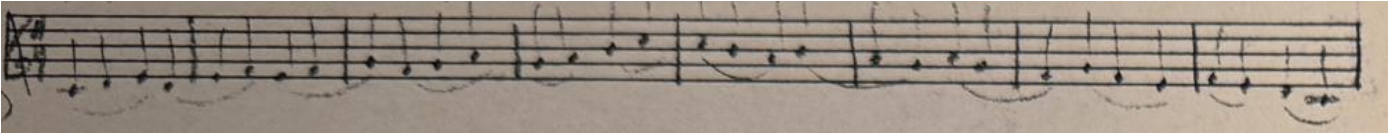
SA

DO

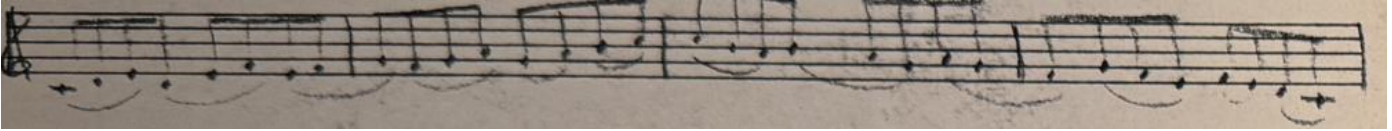
All the preceding and following exercises should be practiced
as in examples A B and C, in addition to the normal way.

Keep quarter note exactly the same.

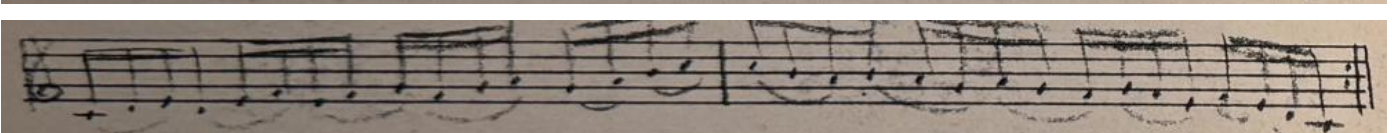
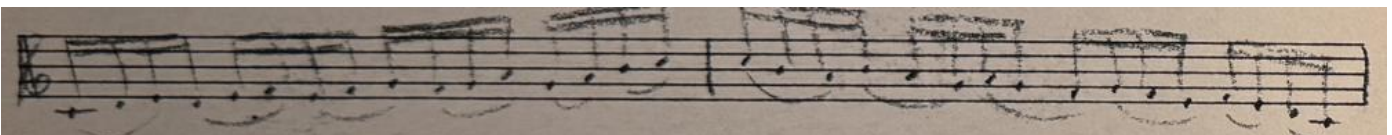
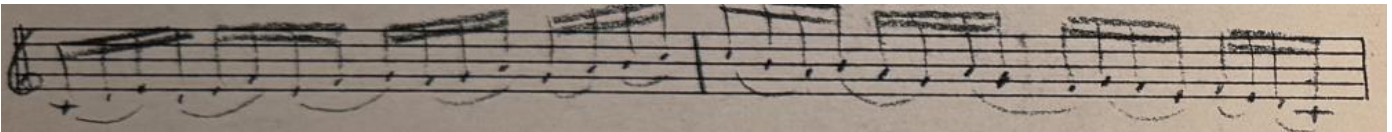
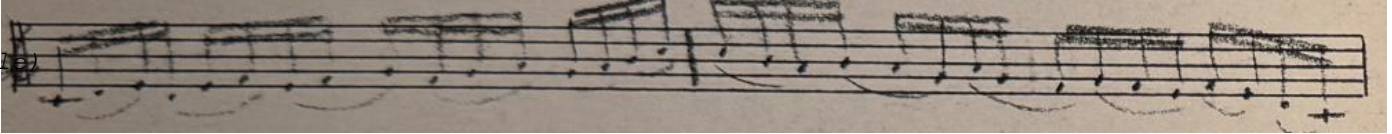
A.
(single)



(double)



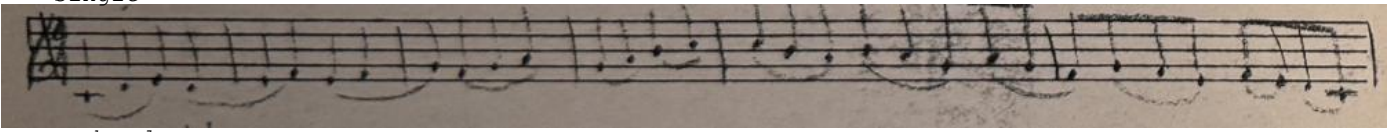
(quadruple)



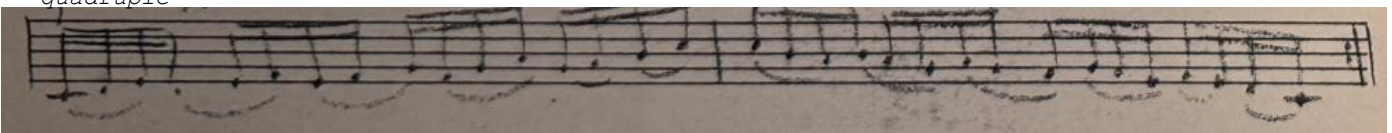
single

double

B.

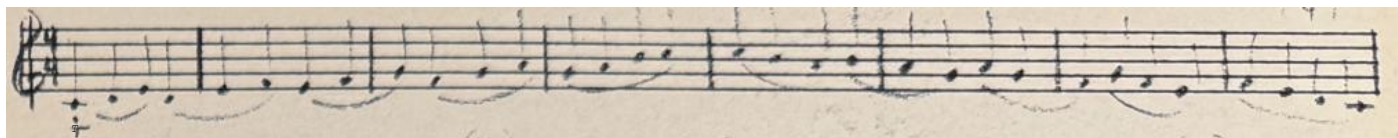


quadruple

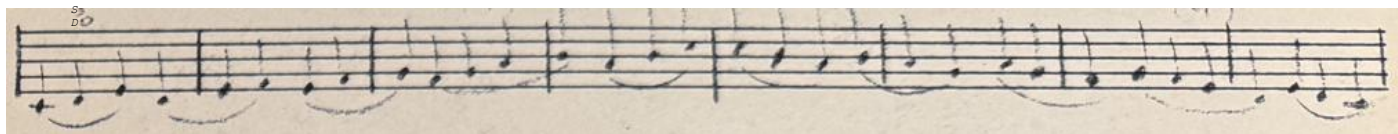


C.

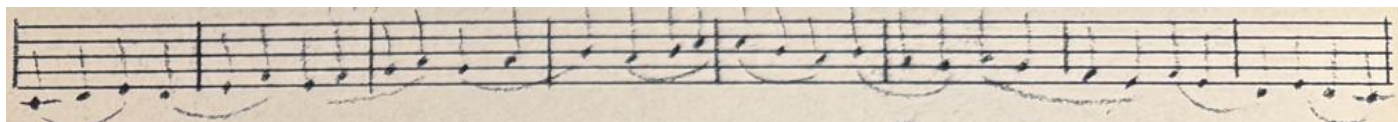
33334



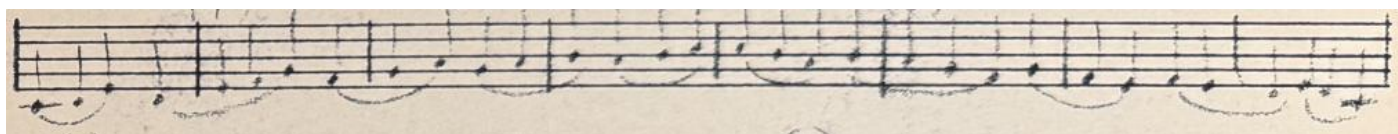
33343



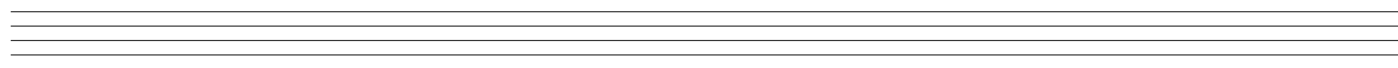
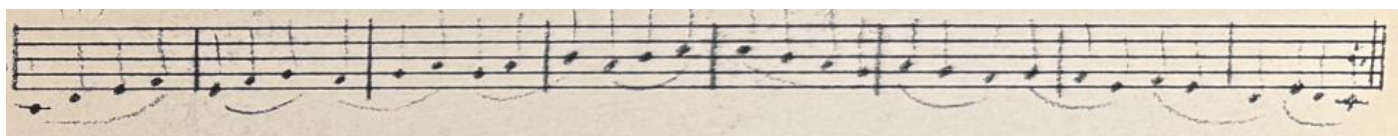
33433



34333



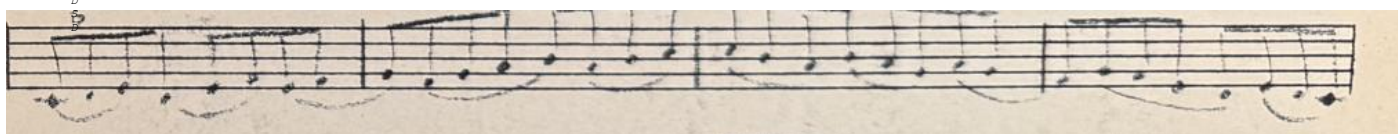
43333



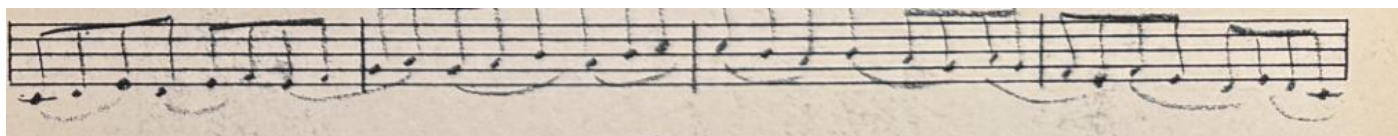
33334



33343



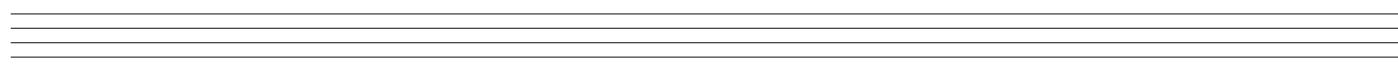
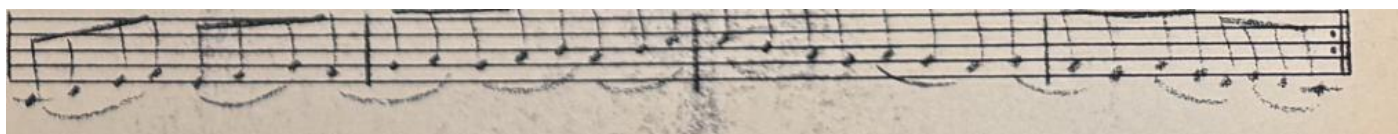
33433



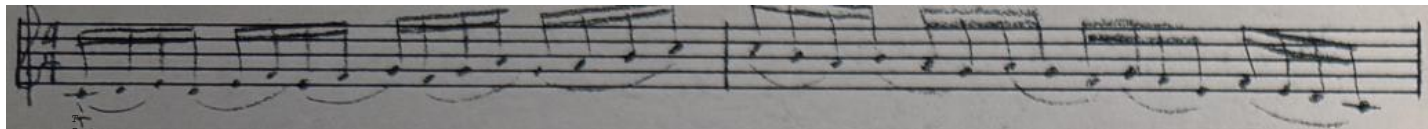
34333



43333



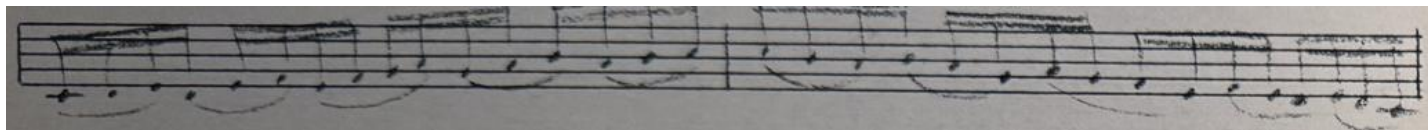
33334



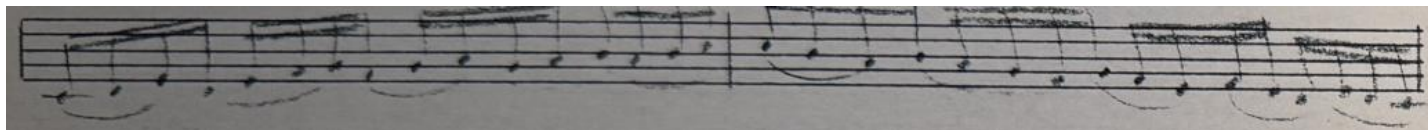
33343



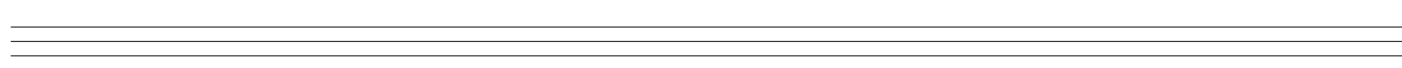
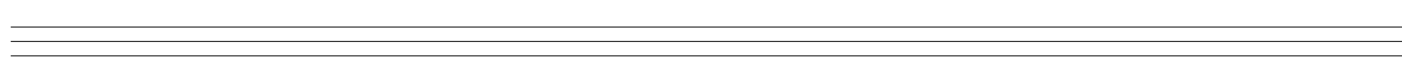
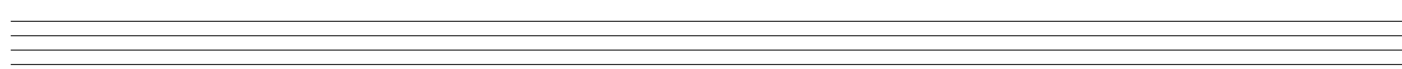
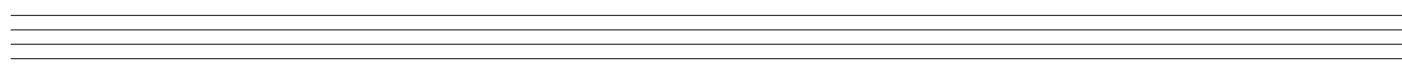
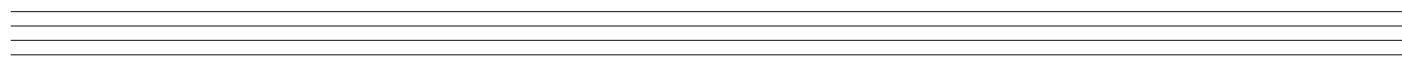
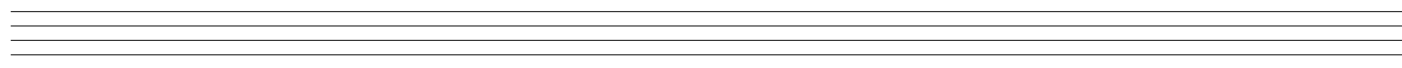
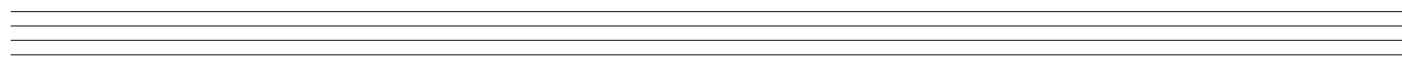
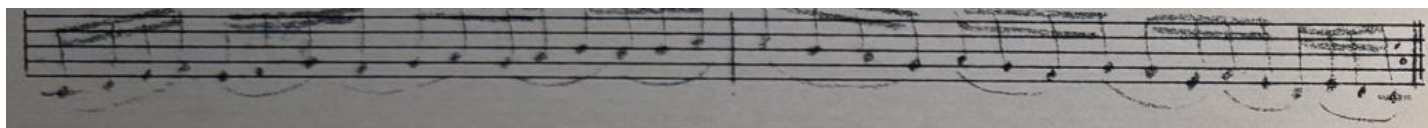
33433



34333



43333



16 can also be divided into two 5's and two 3's.

Practice these exercises in exactly the same way.

5 5 3 3

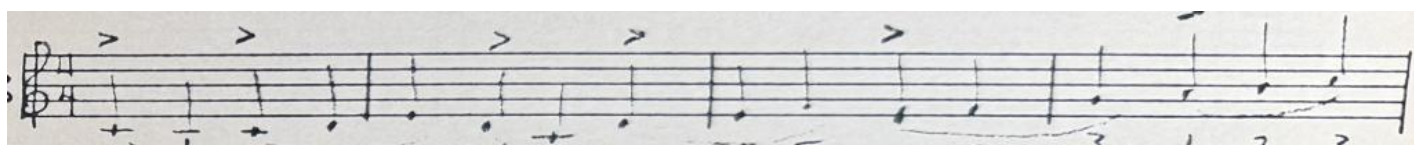
5 3 5 3

5 3 3 5

3 5 3 5

3 3 5 5

5533



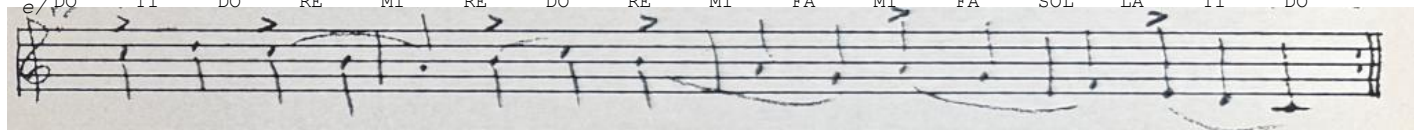
a/1 2 3 4 5 1 2 3 4 5 1 2 3 1 2 3

b/TA KA TA KI TA TA KA TA KI TA TA KI TA TA KI TA

c/Dhin NA Dhin Dhin NA Dhin NA Dhin Dhin NA DA ti tuh DA ti tuh

d/SA NI SA RI GA RI SA RI GA MA GA MA PA DA NI SA

e/DO TI DO RE MI RE DO RE MI FA MI FA SOL LA TI DO



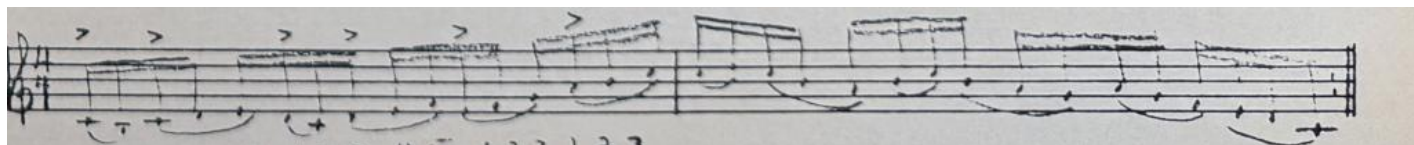
1 2 3 4 5 1 2 3 4 5 1 2 3 1 2 3

TA

DHIN

SA

DO



1 2 3 4 5 1 2 3 4 5 1 2 3 1 2 3

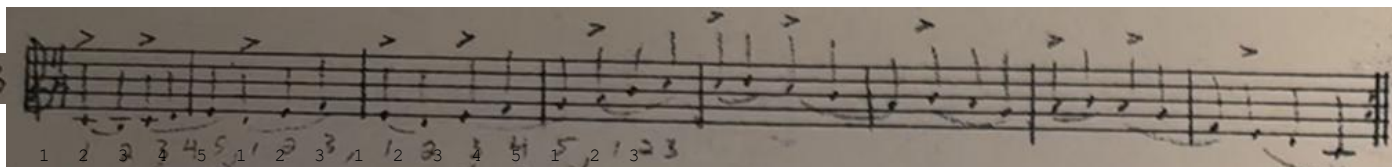
TA

DHIN

SA

DO

5353



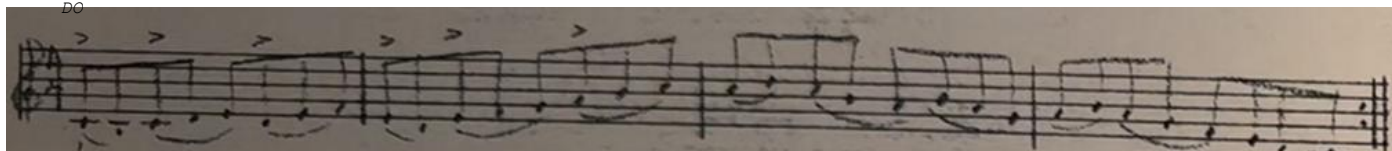
1 2 3 4 5 1 2 3 1 2 3 4 5 1 2 3

TA

DHIN

SA

DO



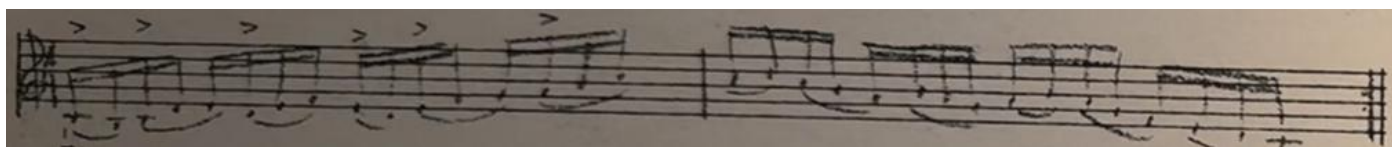
1

TA

DHIN

SA

DO



1

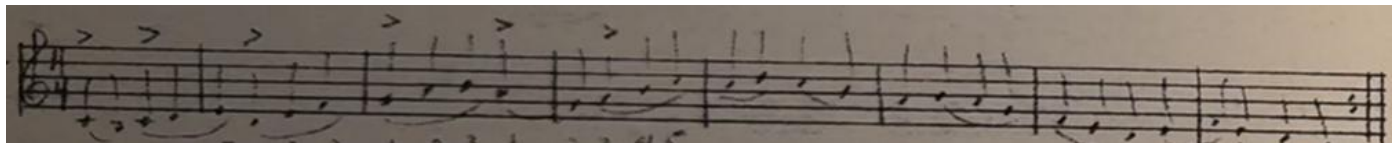
TA

DHIN

SA

DO

335



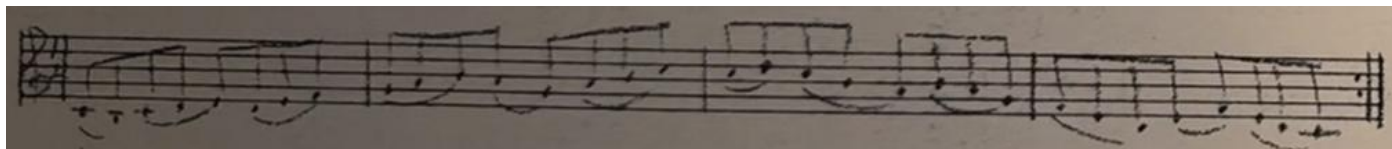
1 2 3 4 5 1 2 3 1 2 3 1 2 3 4 5

TA

DHIN

SA

DO



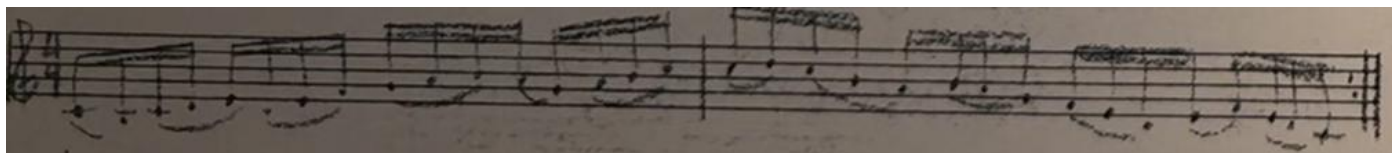
1

TA

DHIN

SA

DO



1

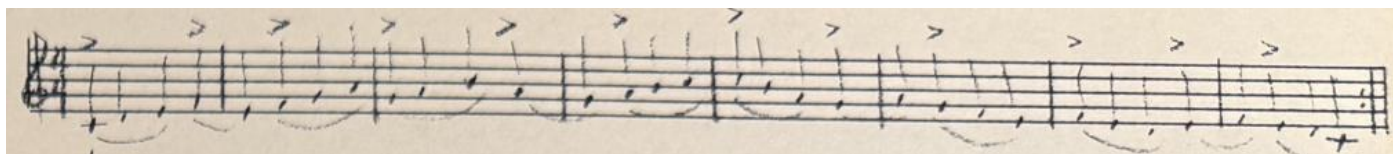
TA

DHIN

SA

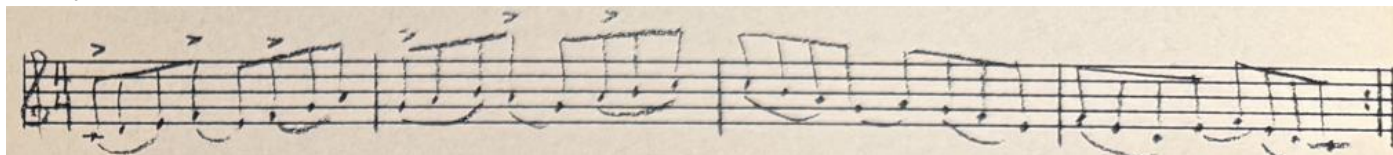
DO

3535



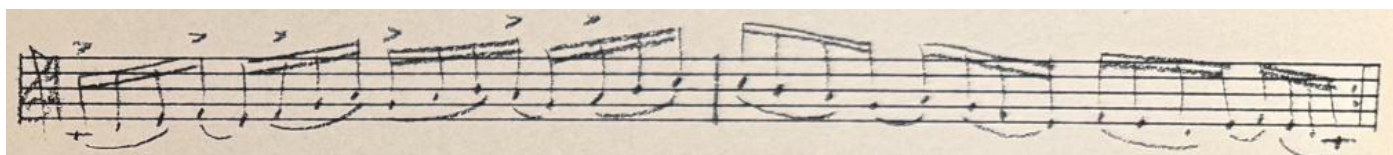
1

TA
DHIN
SA
DO



1

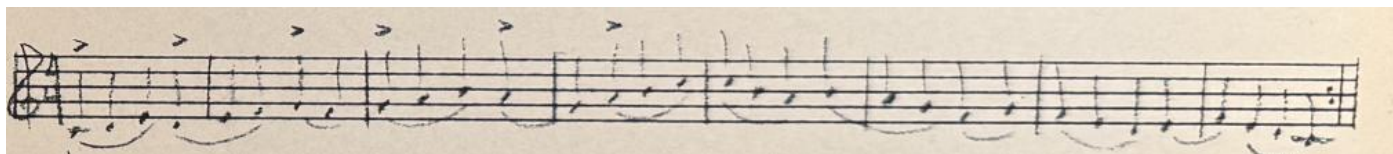
TA
DHIN
SA
DO



1

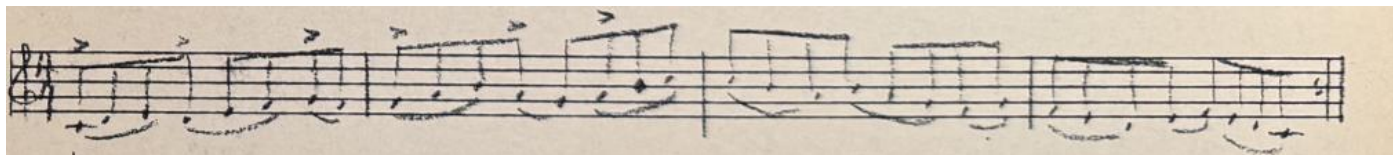
TA
DHIN
SA
DO

3355



1

TA
DHIN
SA
DO



1

TA
DHIN
SA
DO



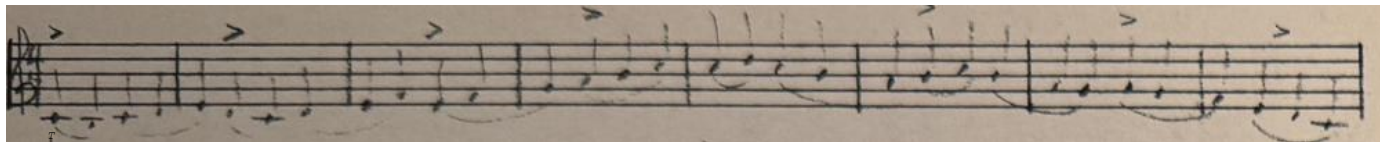
1

TA
DHIN
SA
DO

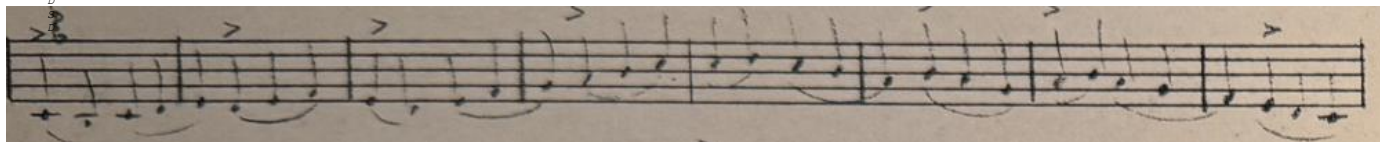
Example C for 5's written out:

(Don't forget to practice as in examples A + B, also)

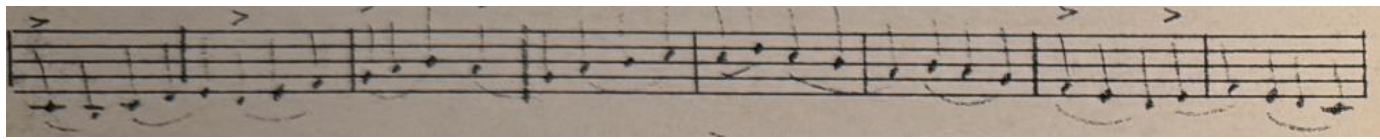
5533



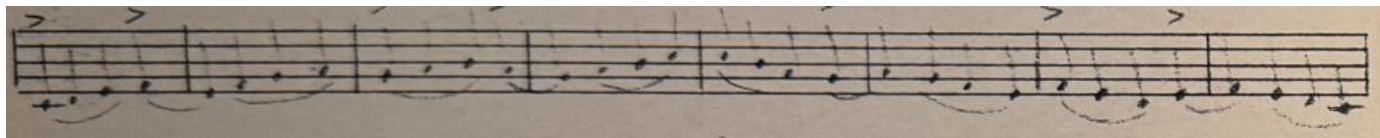
5353



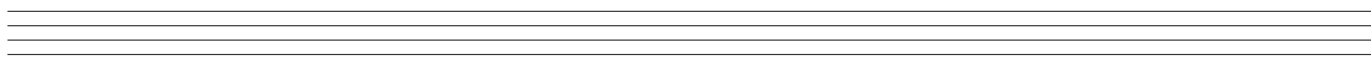
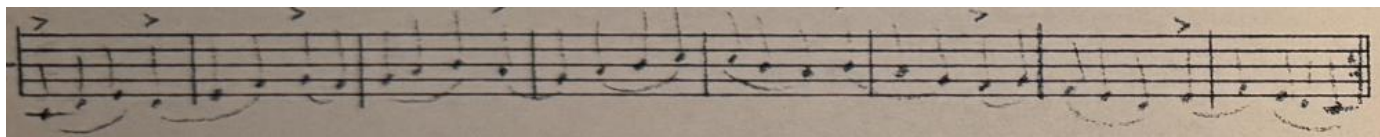
5335



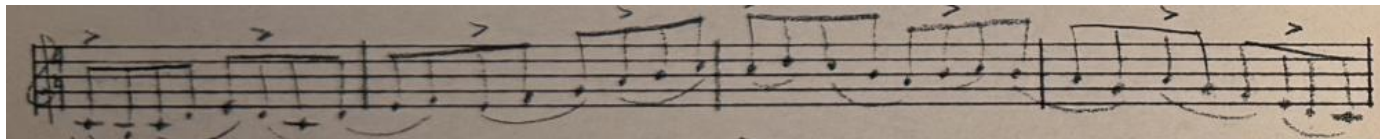
3535



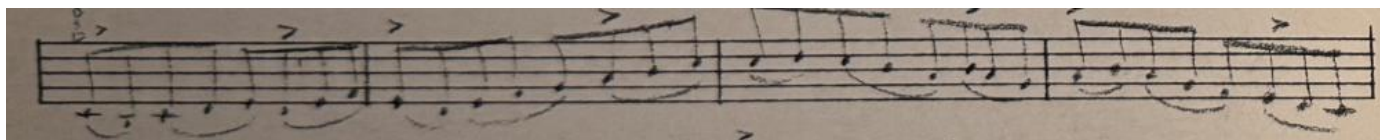
3355



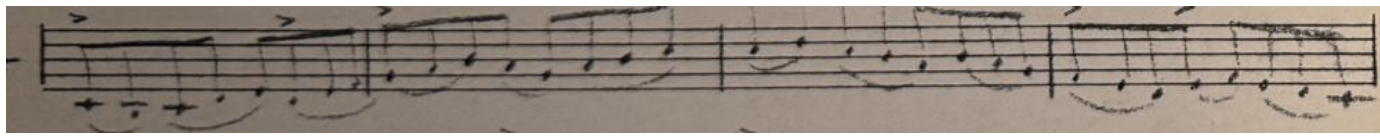
5533



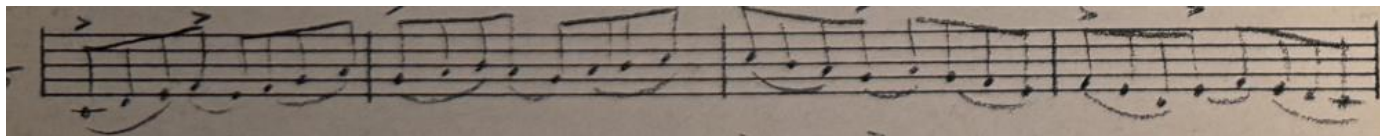
5353



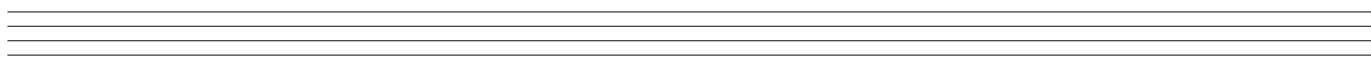
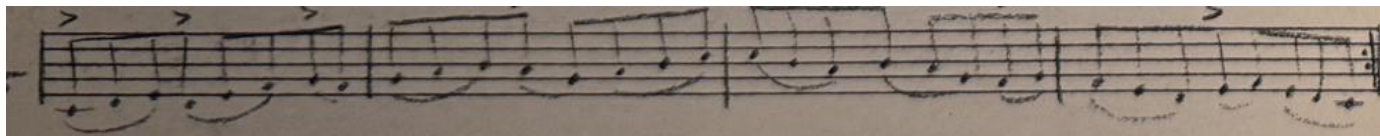
5335



3535



3355



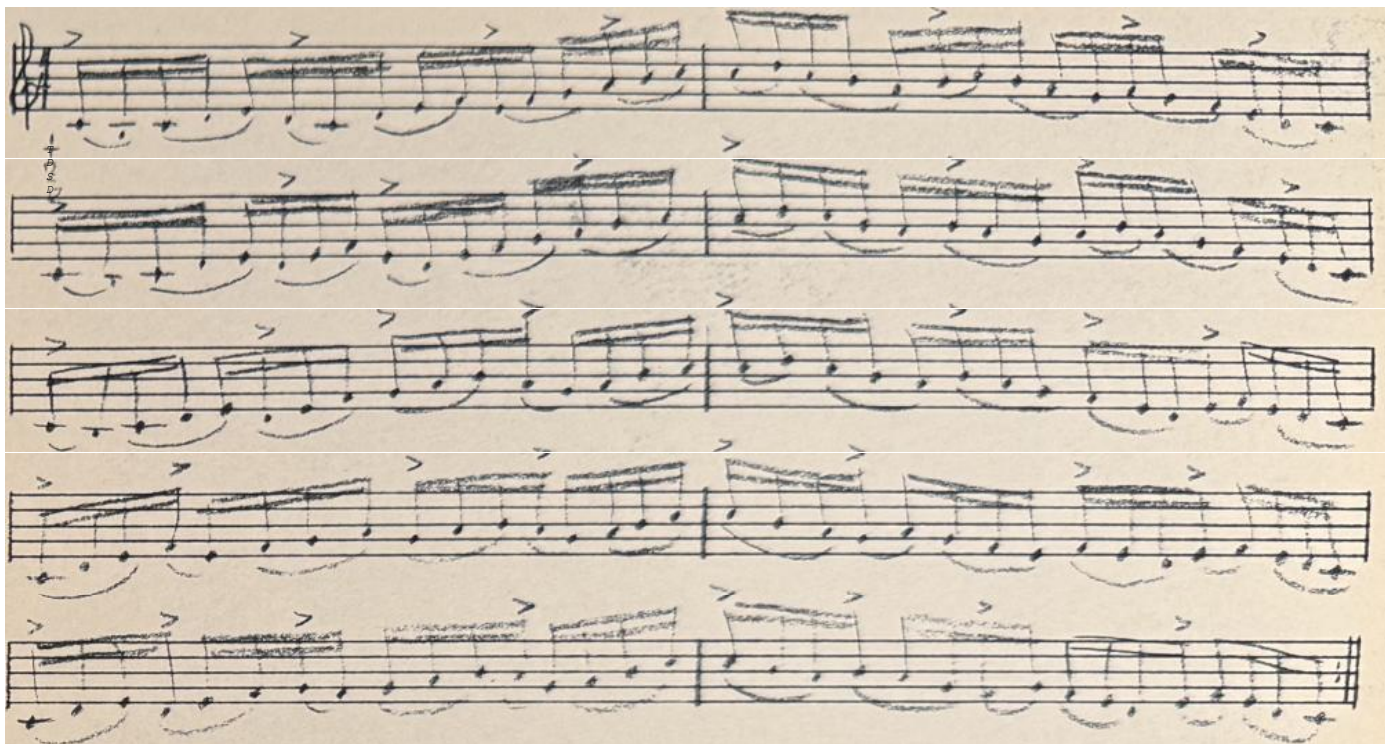
5533

5353

5335

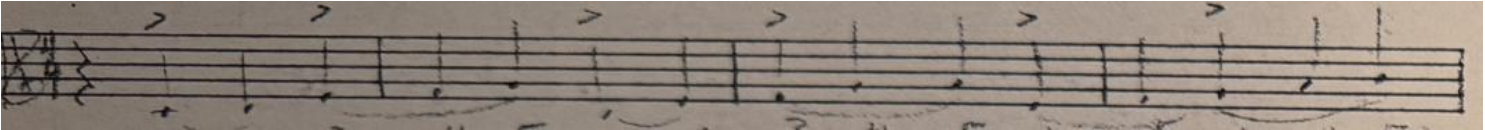
3535

3355



A space and three 5's gives an interesting effect:

0 5 5 5

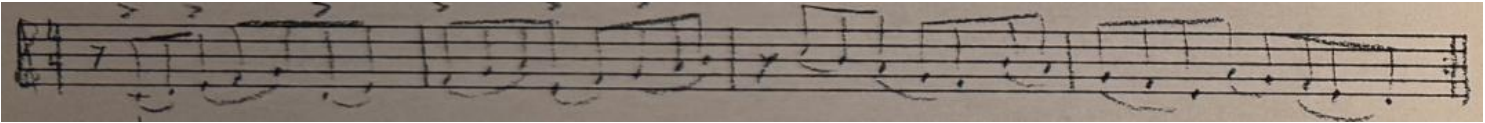


0 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5

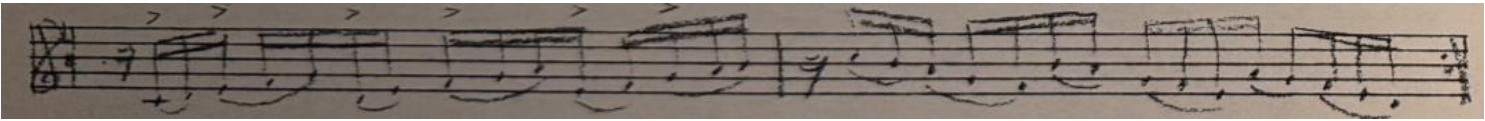
TA	KA	TA	KI	TA	TA	KA	TA	KI	TA	TA	KA	TA	KI	TA
Dhin	NA	Dhin	Dhin	NA	Dhin	NA	Dhin	Dhin	NA	Dhin	NA	Dhin	Dhin	NA
SA	RI	GA	MA	PA	RI	GA	MA	PA	DA	GA	MA	PA	DA	NI
DO	RE	MI	FA	SOL	RE	MI	FA	SOL	LA	MI	FA	SOL	LA	TI



Empty musical staff lines.



1
TA
Dhin
SA
DO



1
TA
Dhin
SA
DO

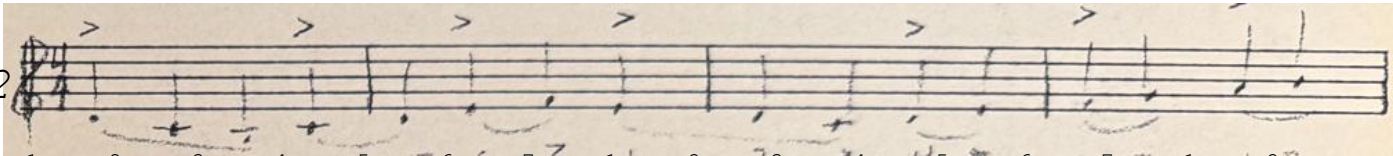
Two 7's and a
2 is another way
to break up
16:

7 7 2

7 2 7

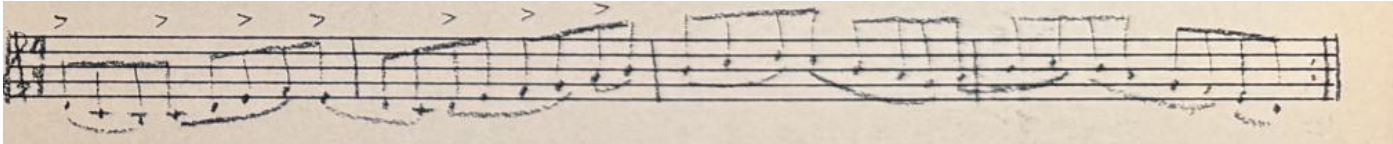
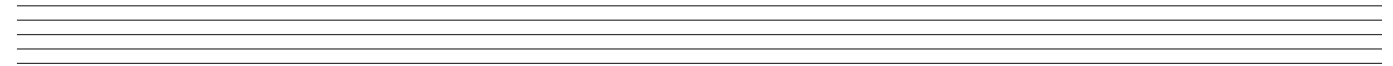
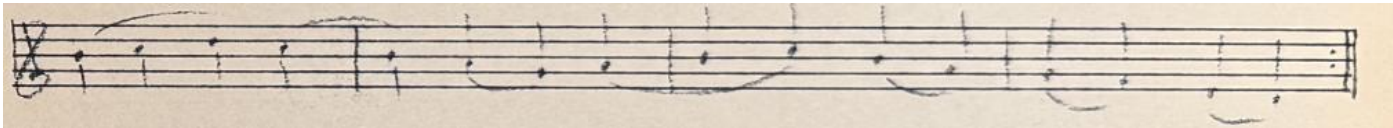
2 7 7

7 7 2

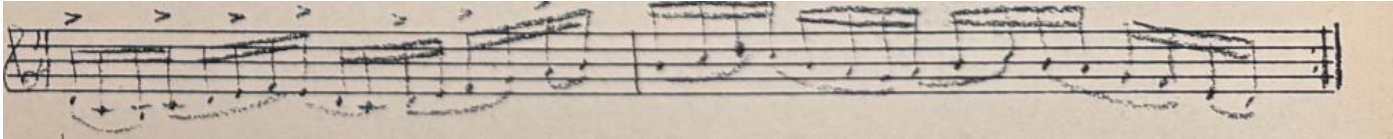


1 2 3 4 5 6 7 1' 2 3 4 5 6 7 1 2

TA	KI	TA	TA	KA	DI	MI	TA	KI	TA	TA	KA	DI	MI	TA	KA
tin	tin	NA	Dhin	NA	Dhin	NA	tin	tin	NA	Dhin	NA	Dhin	NA	ti	tuh
RI	SA	NI	SA	RI	GA	MA	GA	RI	SA	RI	GA	MA	PA	DA	NI
RE	DO	TI	DO	RE	MI	FA	MI	RE	DO	RE	MI	FA	SOL	LA	TI

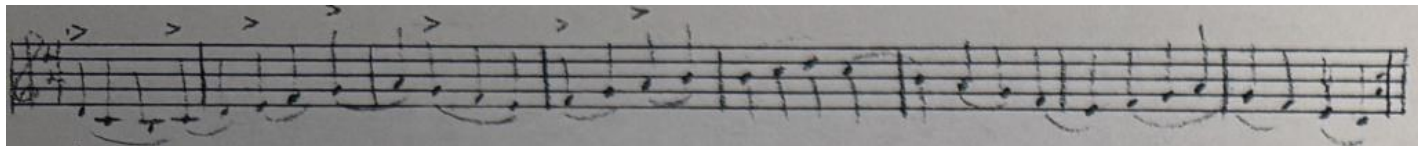


1
TA
DA
RI
RE

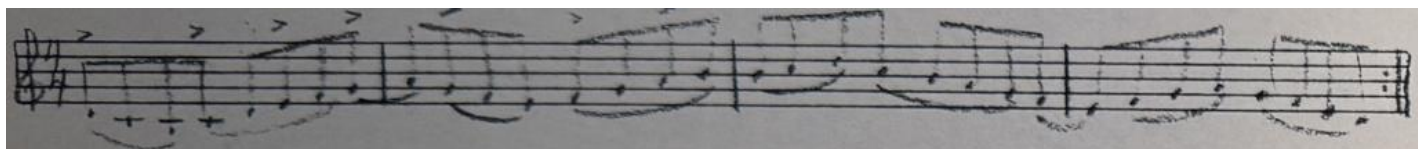


1
TA
DA
RI
RE

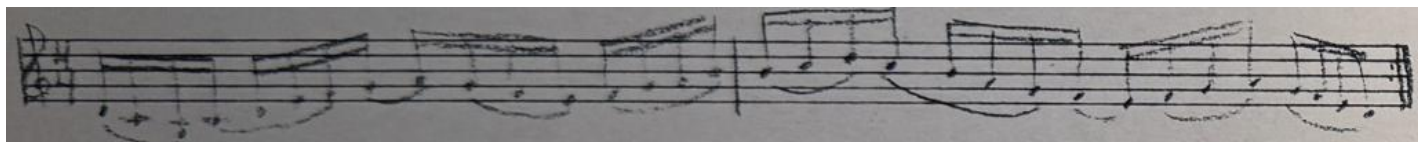
727



1
TA
DA
RI
RE

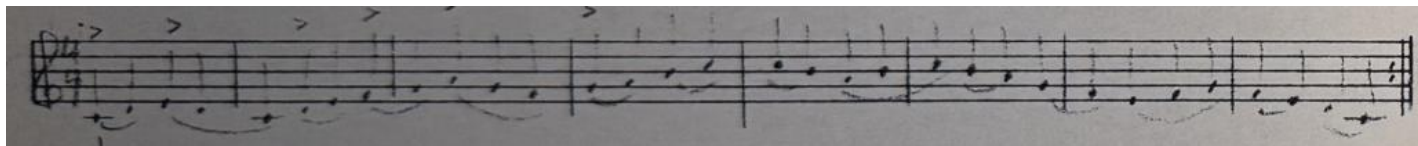


1
TA
DA
RI
RE

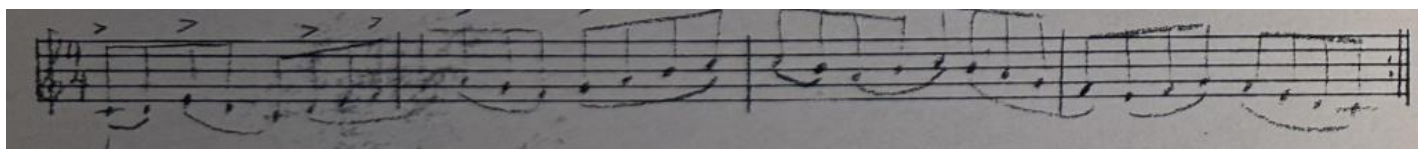


1
TA
DA
RI
RE

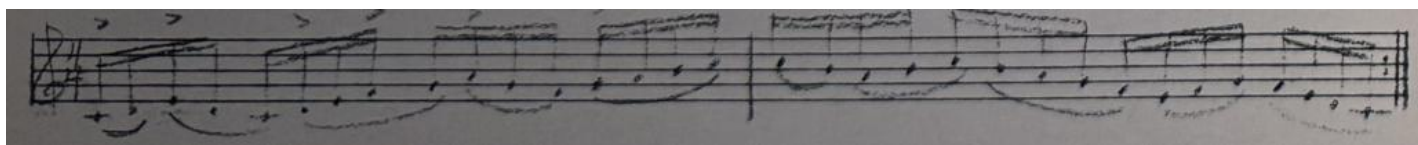
277



1
TA
DA
RI
RE



1
TA
DA
RI
RE



1
TA
DA
RI
RE

D O U B L E L E N G T H 5 ' S

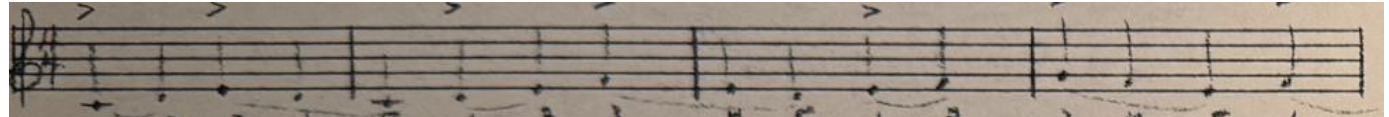
Now we will spread our exercises over 32 beats instead of 16.

5 5 5 5 5 5 2
 5 5 5 5 5 2 5
 5 5 5 5 2 5 5
 5 5 5 2 5 5 5
 5 5 2 5 5 5 5
 5 2 5 5 5 5 5
 2 5 5 5 5 5 5

28

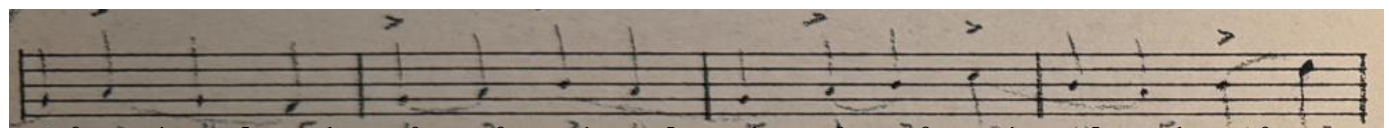
(or, 5 5 5 5 5 7)

5555552



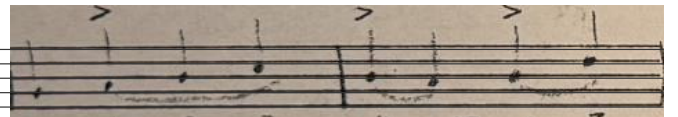
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1
TA	KA	TA	KI	TA	TA	KA	TA	KI	TA	TA	KA	TA	KI	TA	TA
Dhin	NA	Dhin	Dhin	NA	tin	NA	Dhin	Dhin	NA	Dhin	NA	Dhin	Dhin	NA	tin
SA	RI	GA	RI	SA	RI	GA	MA	GA	RI	GA	MA	PA	MA	GA	MA

DO

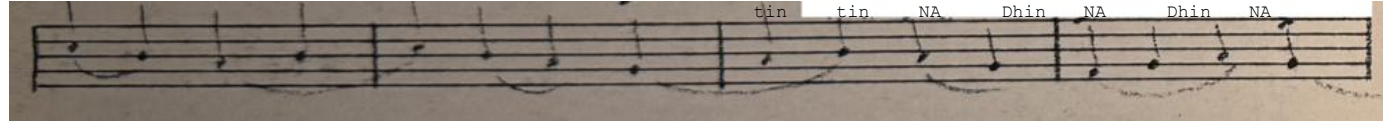
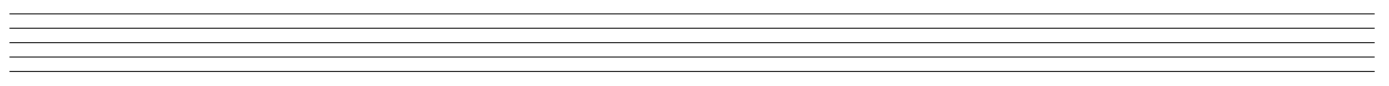


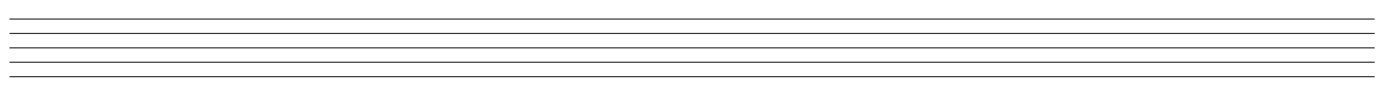
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NA	Dhin	Dhin	NA	Dhin	NA	Dhin	Dhin	NA	tin	NA	Dhin	Dhin	NA	Dhin	NA
PA	DA	PA	MA	PA	DA	NI	DA	PA	DA	NI	SA	NI	DA	NI	SA

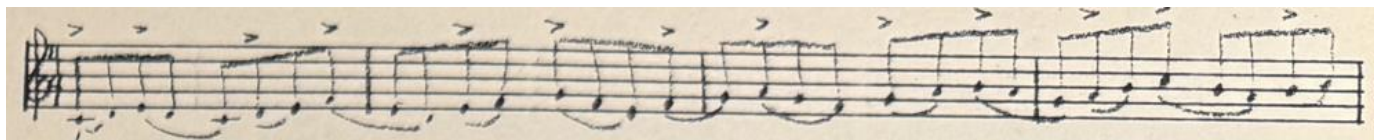
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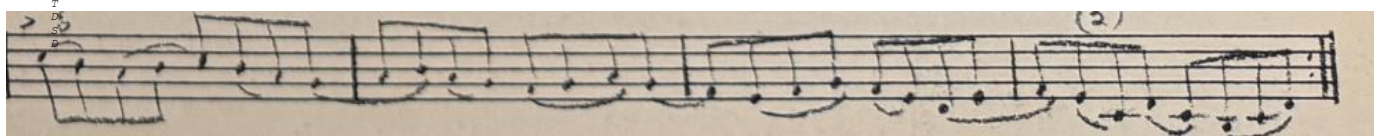
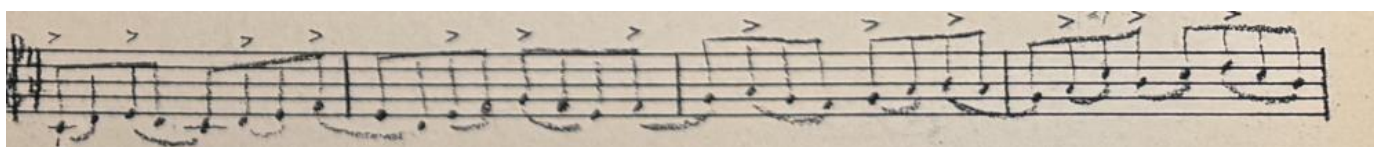
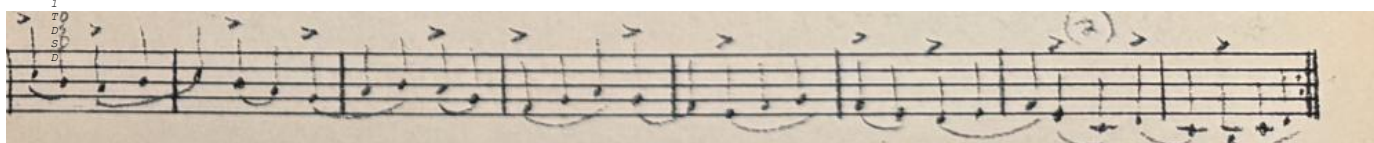
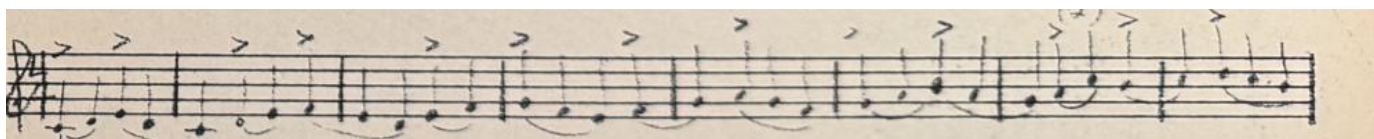
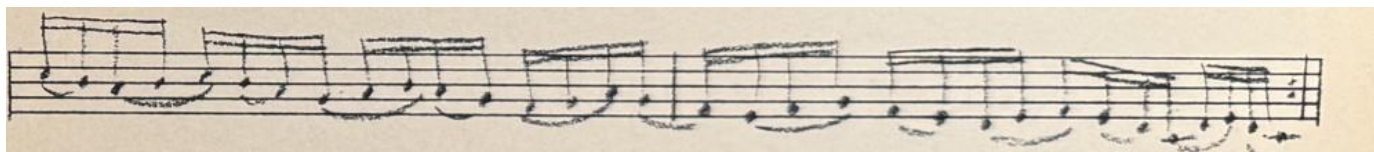
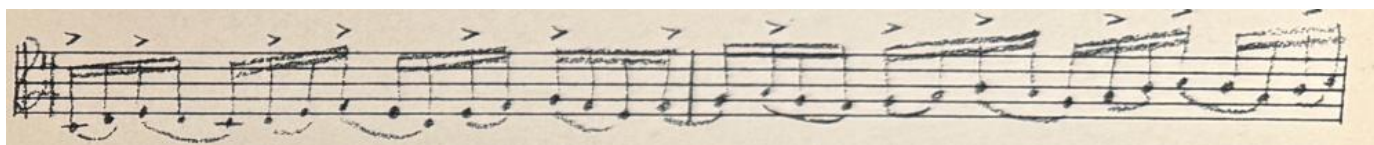
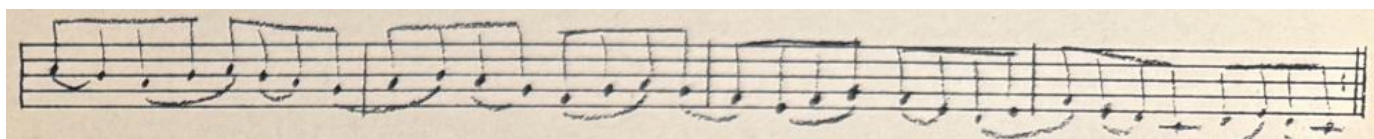
1	2	3	4	5	6	7
TA	KI	TA	TA	KA	DI	MI
tin	tin	NA	Dhin	NA	Dhin	NA

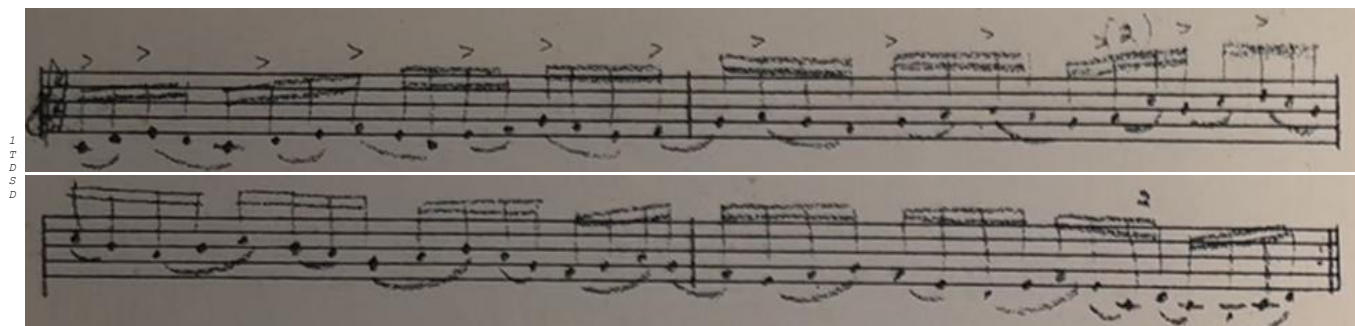





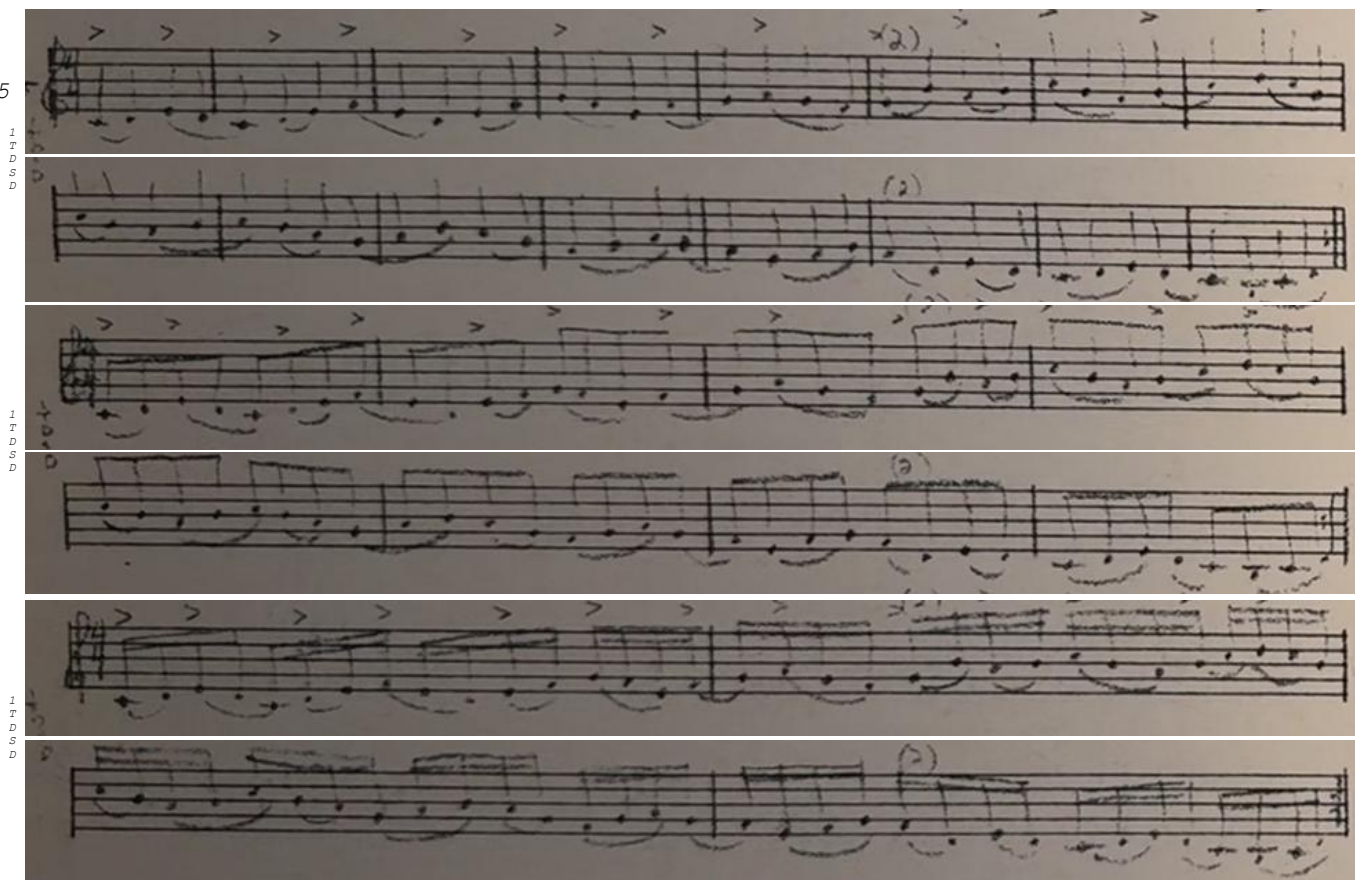
1
T TA
D
S Dhin
n
SA
DO



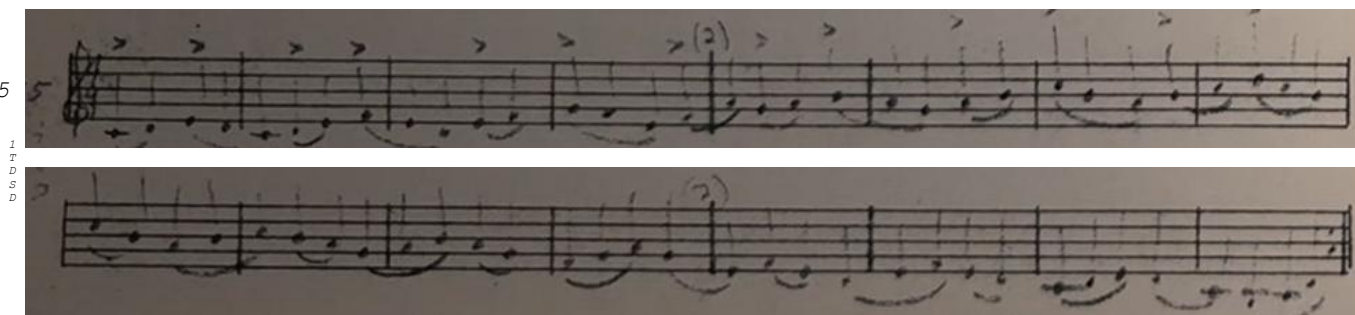
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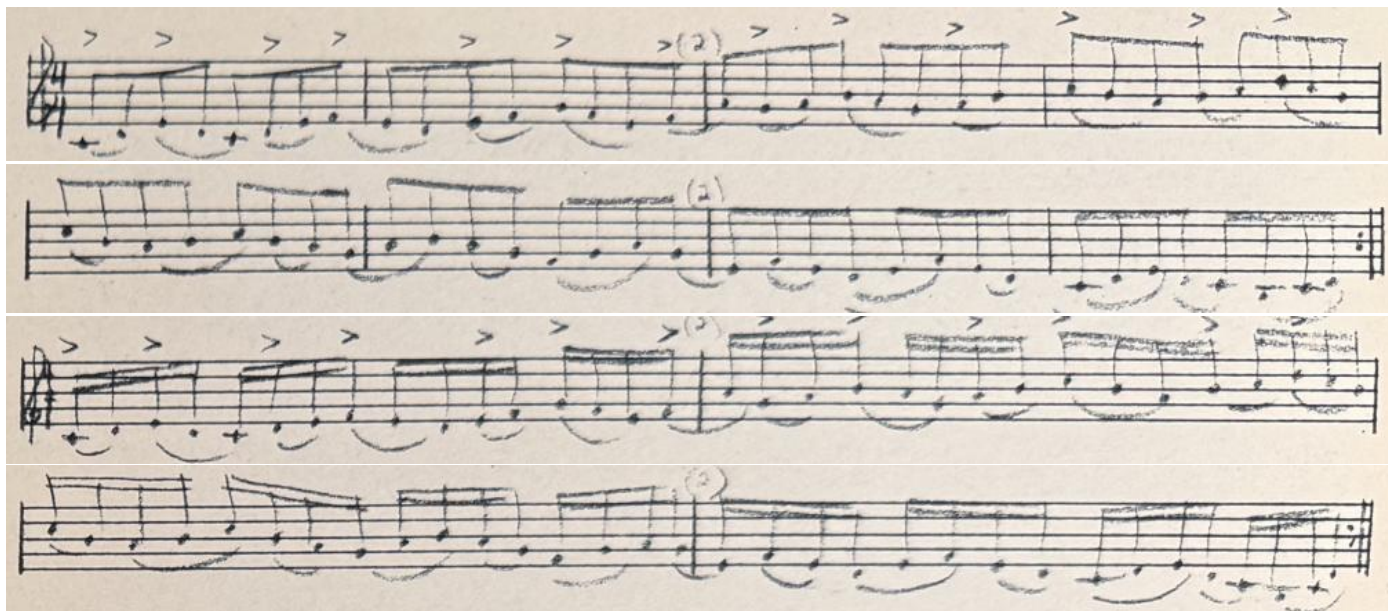
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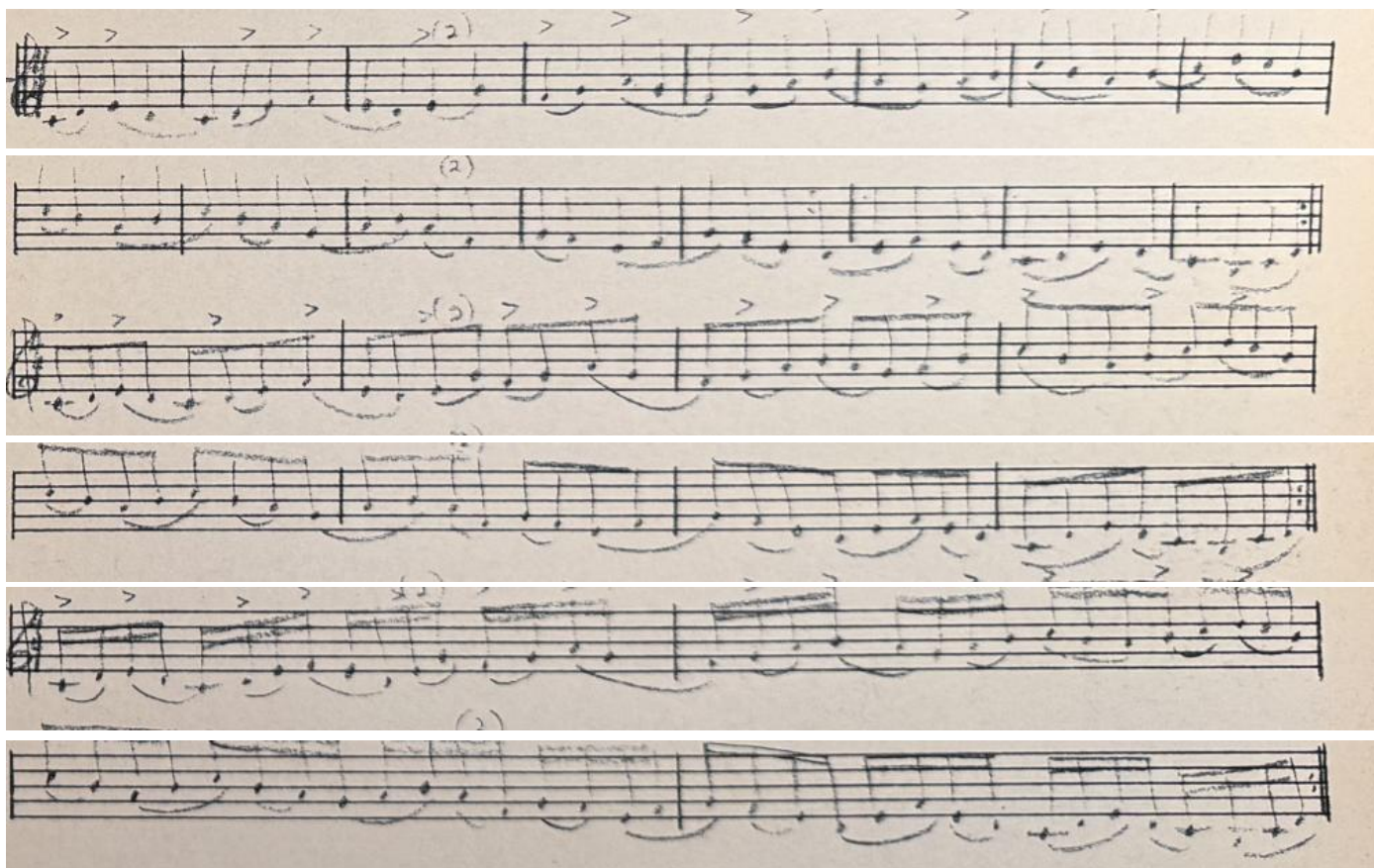
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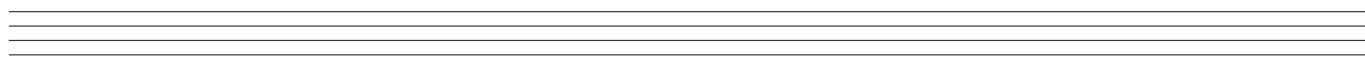
1
T
D
S
D



1
T
D
S
D

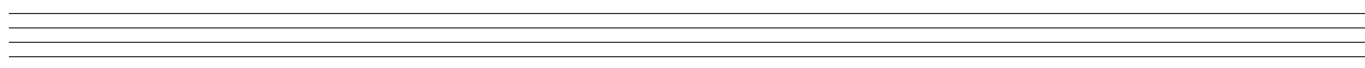
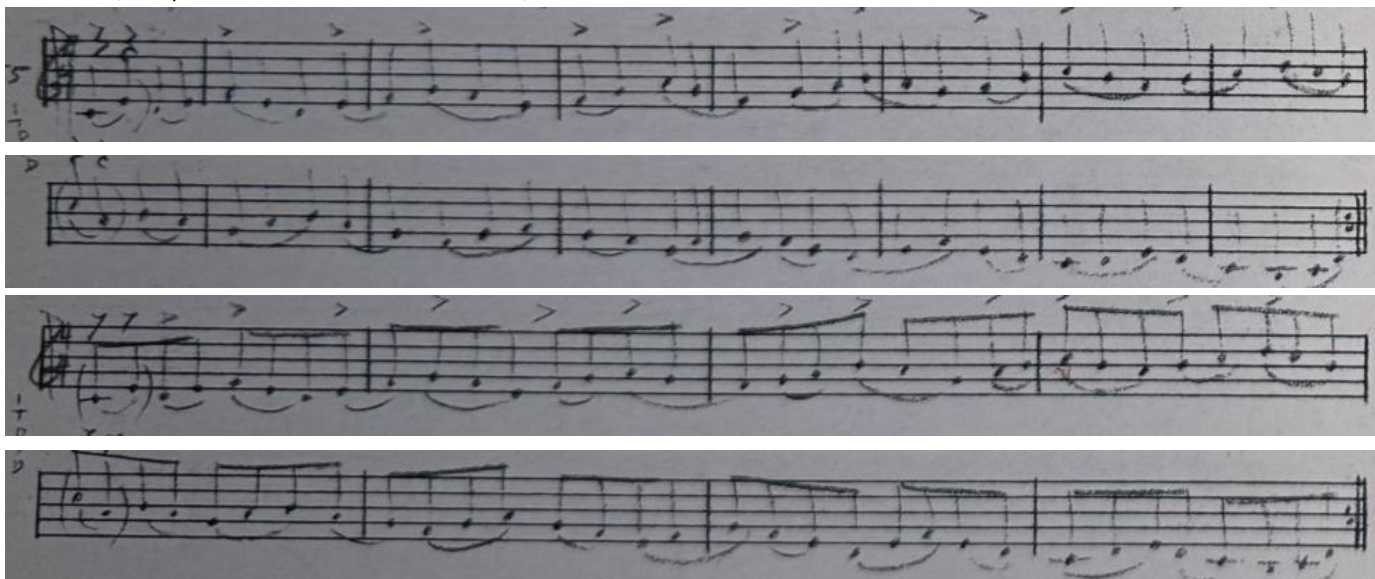


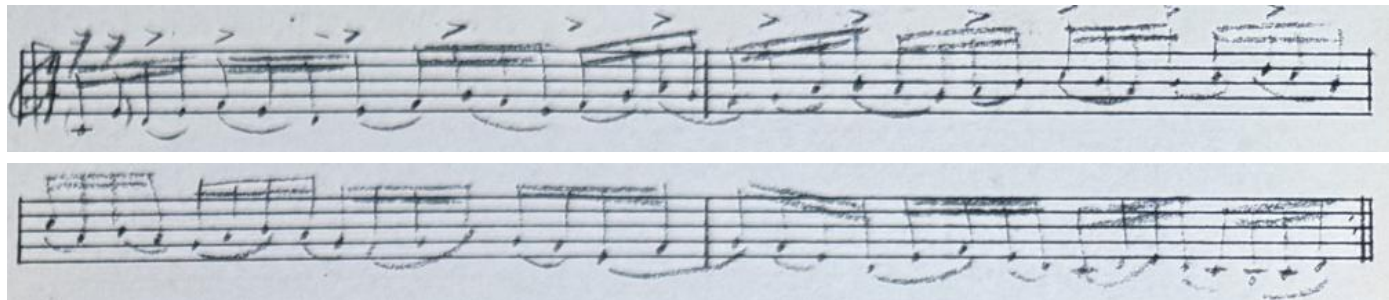
5255555

1
T
D
S
D

(or, 0 0 5 5 5 5 5 5)

2555555

1
T
D
S
D

1
2
3
4

D O U B L E L E N G T H 7'S

Practice these in exactly the same way.

7 7 7 7 4

35

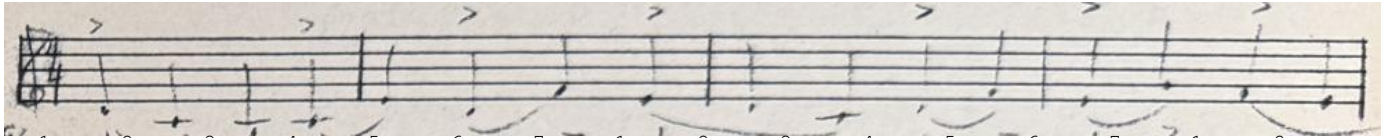
7 7 7 4 7

7 7 4 7 7

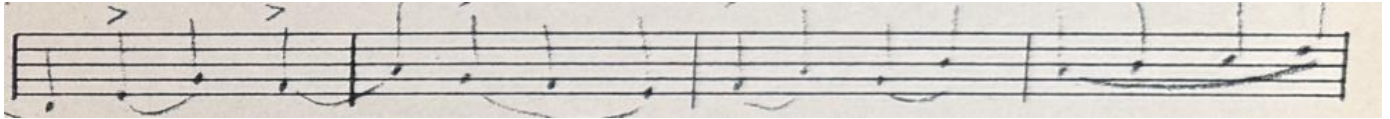
7 4 7 7 7

4 7 7 7 7

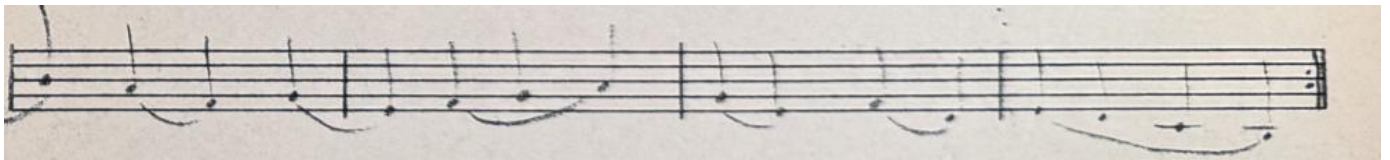
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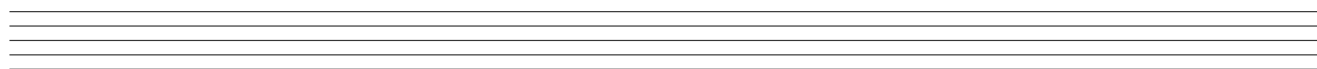
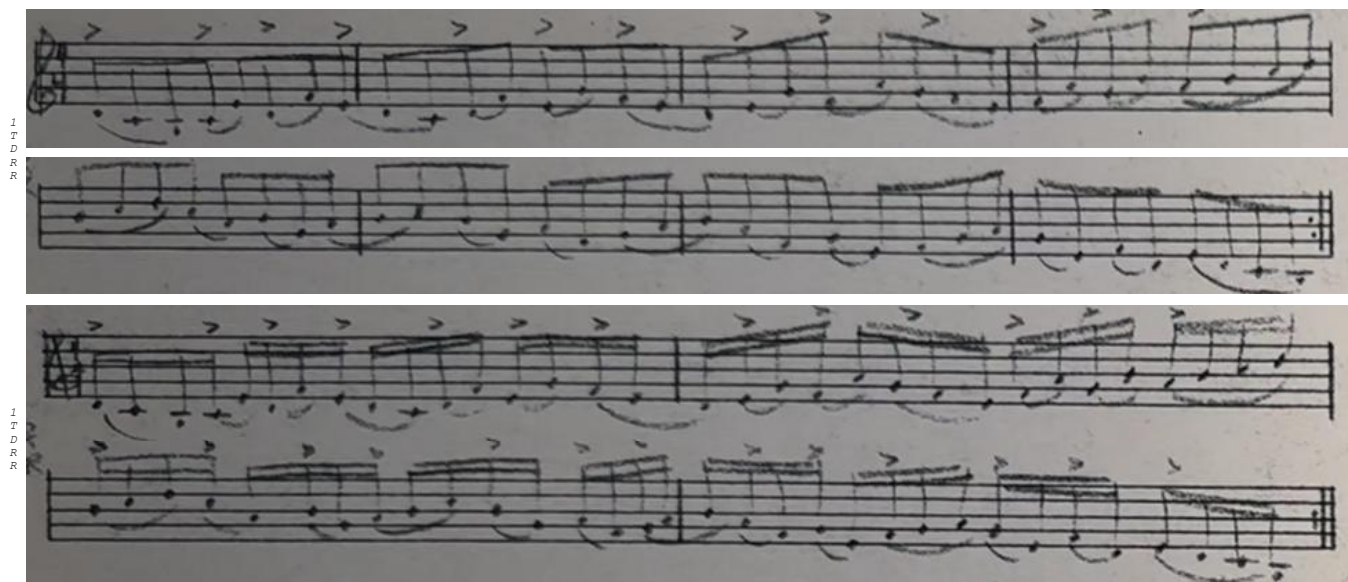


1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
TA	KI	TA	TA	KA	DI	MI									
Dha	Ghin	NA	Dha	Gay	ti	tuh	Ta	kin	NA	Ta	kay	ti	tuh		
RI	SA	NI	SA	GA	RI	MA									
RE	DO	TI	DO	MI	RE	FA									



Dha Dhin Dhin Dha

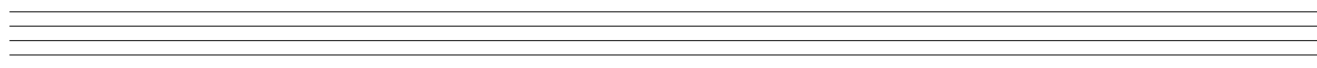




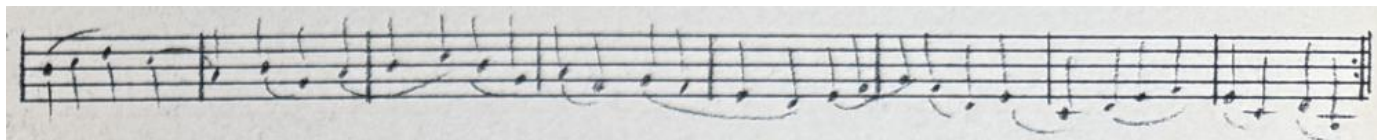
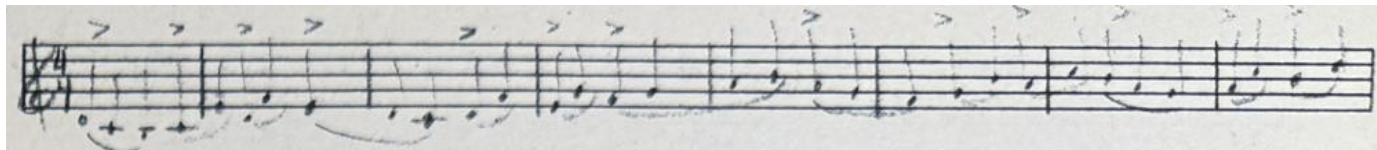
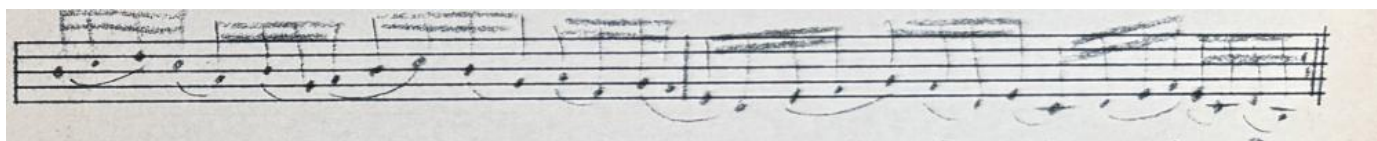
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1
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R
R

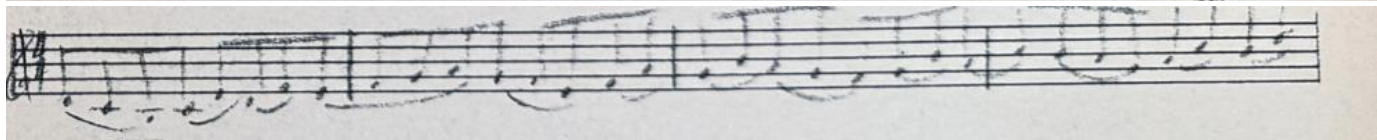
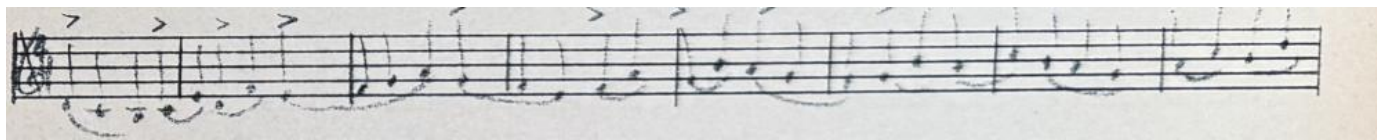
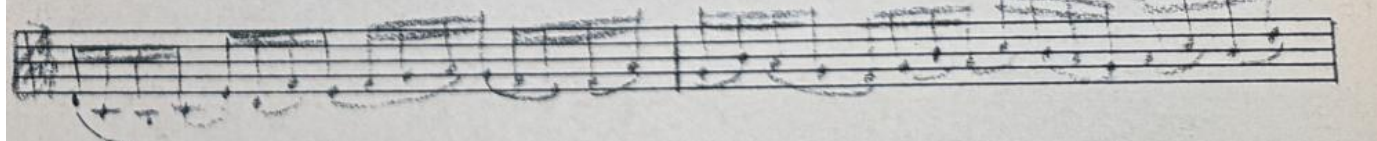
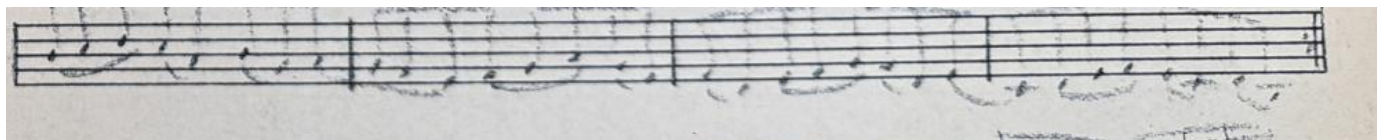
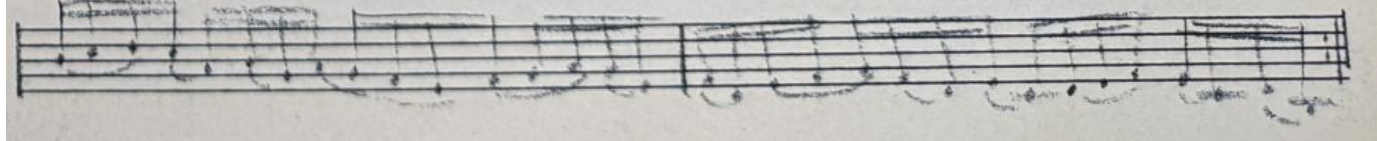
1
T
D
R
R



77477

I
T
D
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RI
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D
R
RI
T
D
R
R

74777

I
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D
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RI
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D
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R

47777

I
T
D
R
RI
T
D
R
R

CHAPTER 2

BASIC RHYTHMIC EXERCISES CONTINUEDTRIPLETS, QUINTUPLETS AND SEPTUPLETS

This chapter should be practiced in exactly the same manner as chapter 1.

It gives practice not only in triplets, quintuplets and septuplets, but makes you play these broken into various cross rhythms!

2's



4's



* May be extended to all 7th chords in the "KEY"

5's

(5 5 5 5 4)

1 2 3 4 5

T K T K T

Dhin NA Dhin Dhin NA

7's

(7 7 7 3)

1 2 3 4 5 6 7

T K T T K D M

tin tin NA Dhin NA Dhin NA

Handwritten musical score for a piece titled "7's". The score is written on 12 staves. The first staff includes a key signature change to one flat and a 7/8 time signature. The music is written in a single melodic line. The notation includes various note values, rests, and dynamic markings. The lyrics "tin tin NA Dhin NA Dhin NA" are written below the first staff. The score is divided into sections by double bar lines and repeat signs. The final staff ends with a double bar line and a repeat sign.

QUINTUPLETS

43

Tap foot on 1 + 4 or 1 + 3 in the 5/4 bars

2's



3's

(3 3 3 3 3 2)

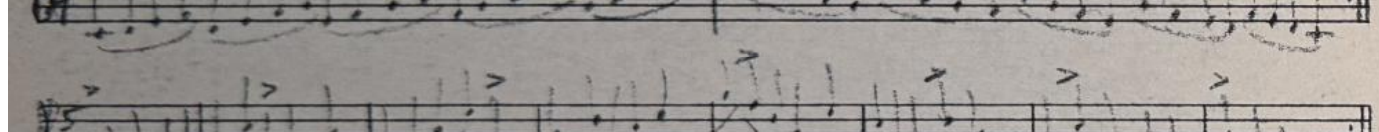
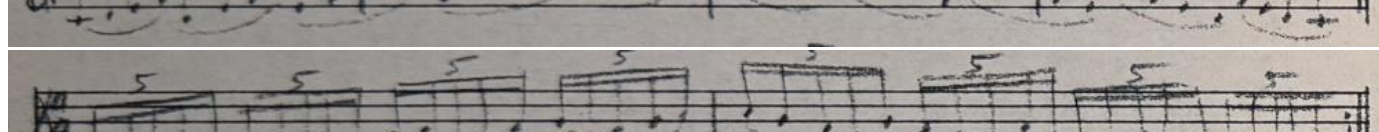
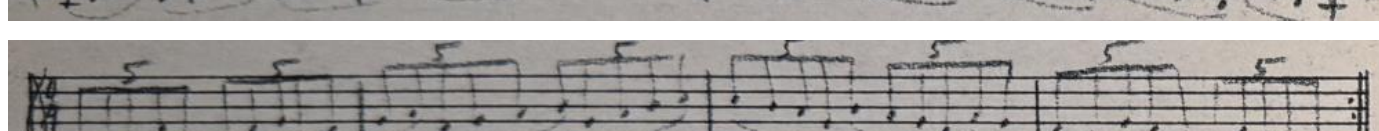
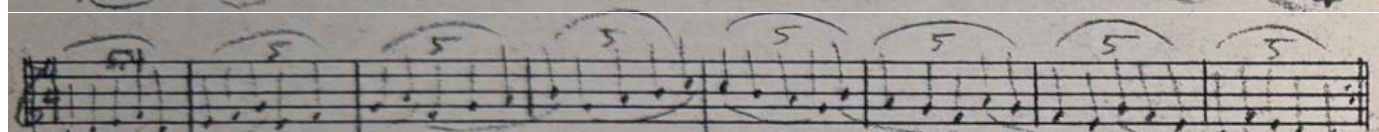
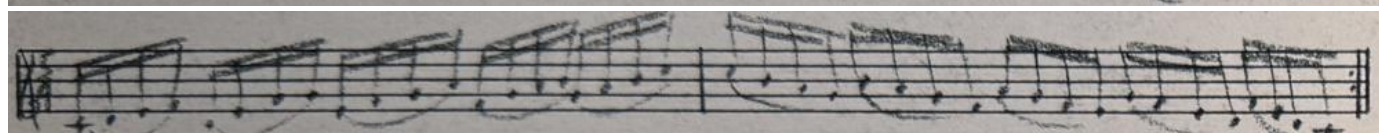
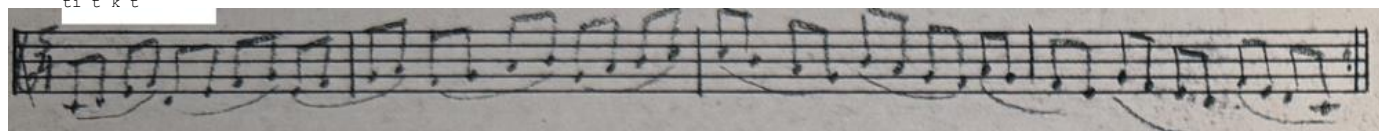
T K T
D t t T t i t



* See p. for accurate counting of 5 vs 4

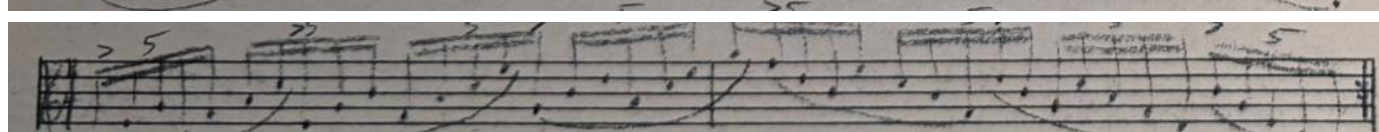
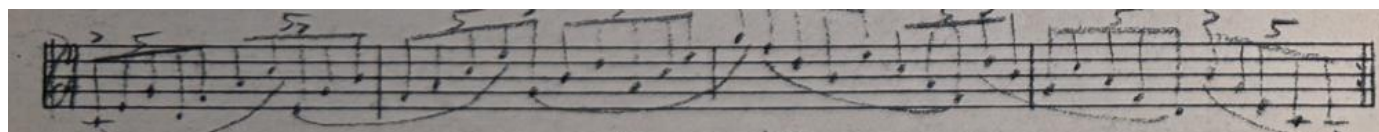
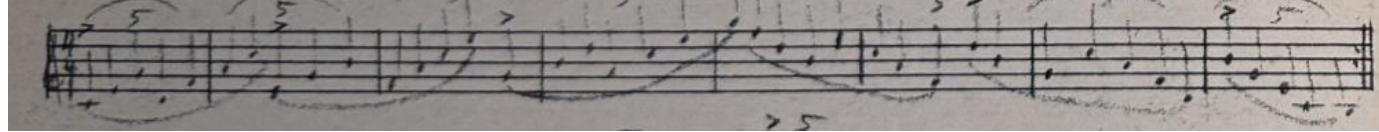
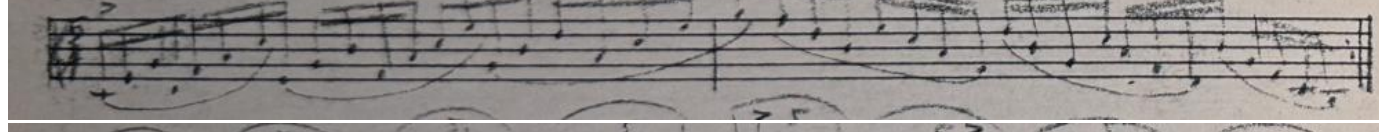
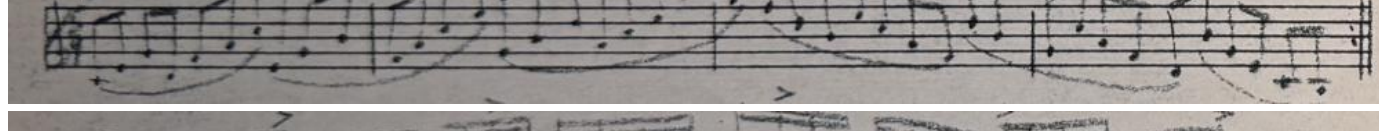
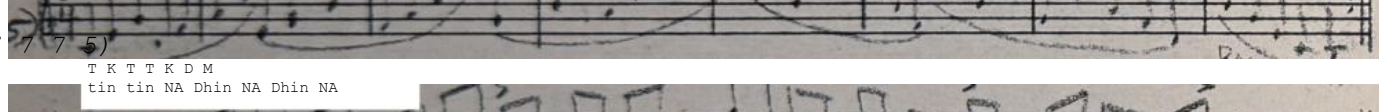
4's

(4 4 4 4)



7's

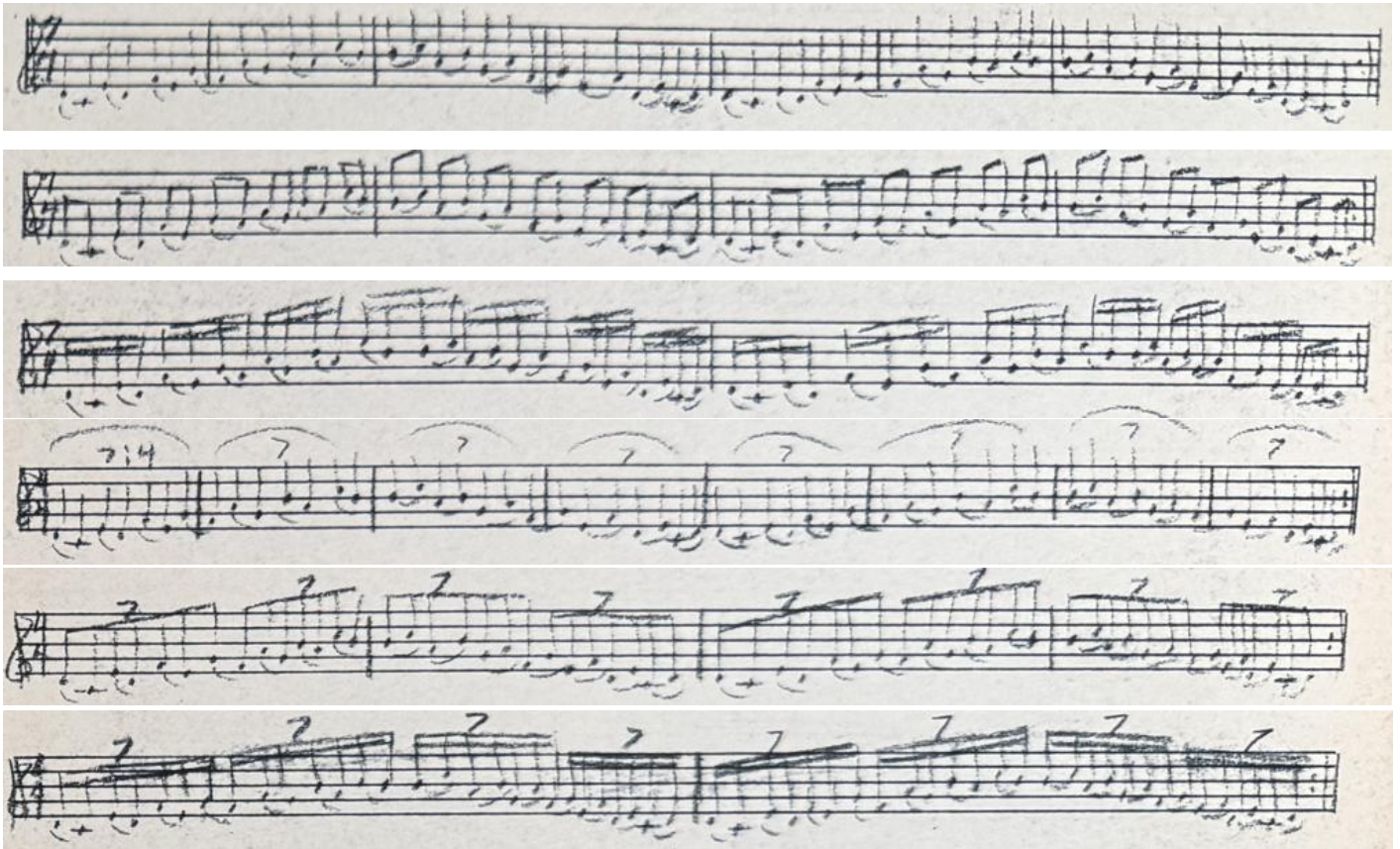
(7 7 7 7)



Septuplets

45

Tap foot on 1, 4, 6 or 1 3 5 in 7/4 bars

 $2's$ 

3'S

3's
(3 3 3 3 3 3 3)



4's
(4 4 4 4 4 4 4)

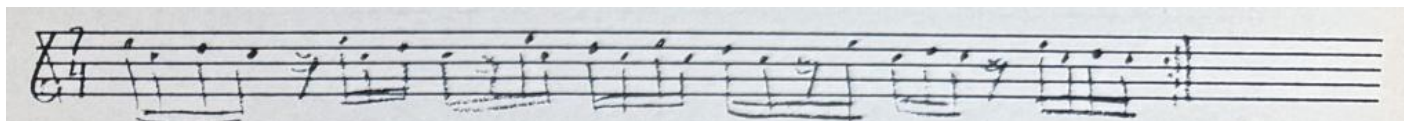
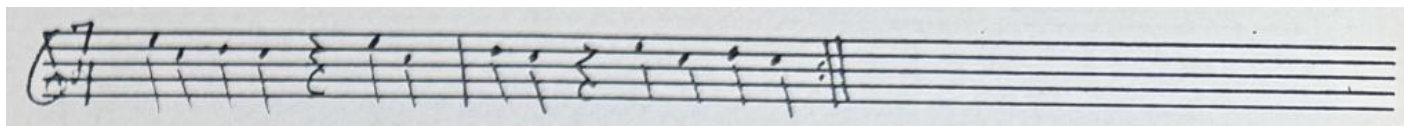


5's
(5 5 5 5 5 5 5)

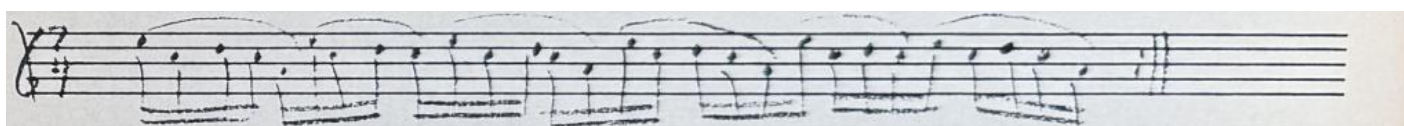
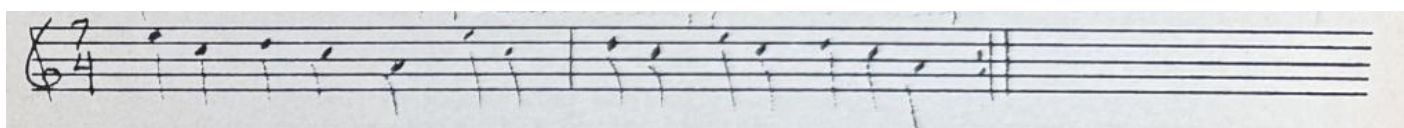


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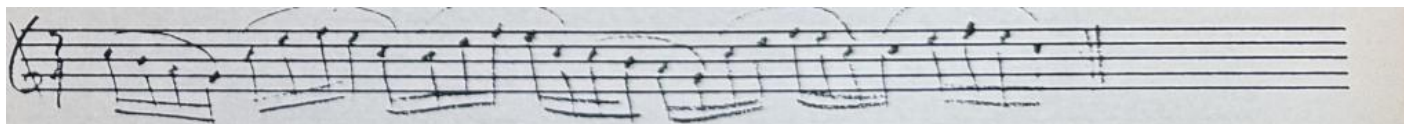
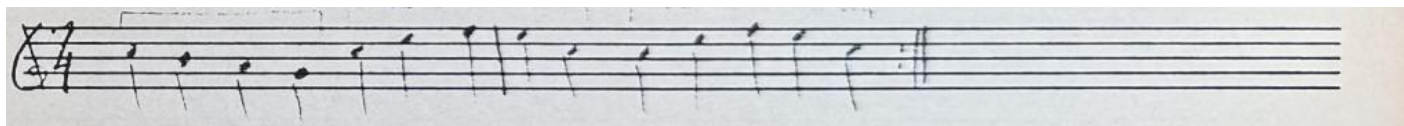
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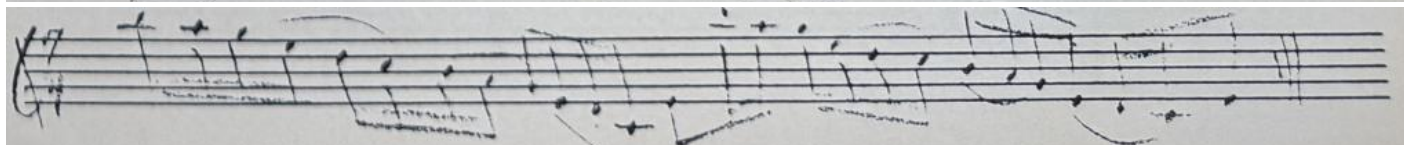
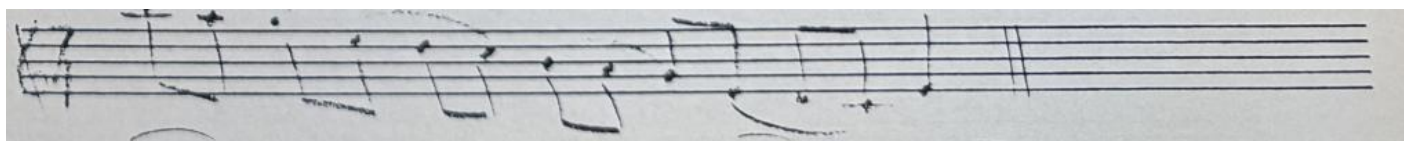
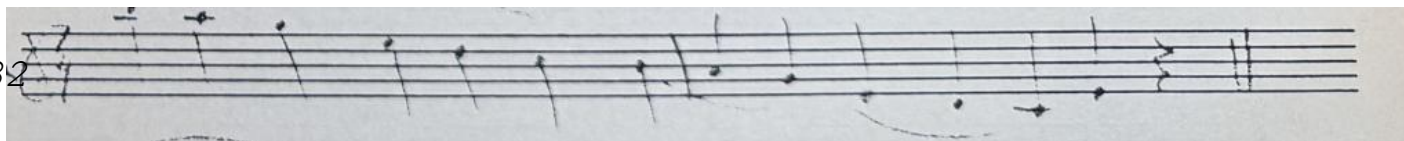
545



455



33332



CHAPTER 3

BASIC WAYS OF DIVIDING 5, 7 and 9

In order to become completely natural and fluent in the meters of 5, 7 and 9, it is necessary to be able to combine the various subdivisions one with the other.

This can be learned by clapping the basic subdivision and counting the variations out loud.

For example: 5 can be divided two ways: 2+3 or 3+2. To mark the basic subdivision 2+3, clap on the first and third beats and (when the tempo is not too fast) lightly tap the little finger of the right hand on the palm of the left on the second and fourth beats, and tap the fourth finger similarly on the fifth beat.

Start very slowly, count "one, two three four five" out loud until the meter is firmly established, then double, quadruple and halve the vocal count, keeping the original claps the same.

		<u>2+3</u>			
a/	1	2	3	4	5
		little		little	fourth
basic	clap	finger	clap	finger	finger
COUNT:					
single	one	two	three	four	five
double	1 2	3 4	5, 1	2 3	4 5
quadruple	1 2 3 4	5, 1 2 3	4 5, 1 2	3 4 5, 1	2 3 4 5
half	1	--	2	--	3
	--	4	--	5	--

When this is secure, start again at a faster tempo and work up to as fast a tempo as possible. (Be sure to keep whatever tempo you are practicing precisely steady, or most of the value of these exercises will be lost).

When the tempo gets faster than you can articulate the quadruple speed, leave it out and just work up the single and double speed as fast as possible. Then when the double speed gets too fast, work on only the single speed and half time.

The next step is to use the subdivision 2+3 against the 2+3 basic beat. Accent all the "one's" vocally to help get the feel.

b/

	1	2	3	4	5
	clap	little finger	clap	little finger	fourth finger
single	one	two	one	two	three
double	1 2	1 2	3, 1	2 1	2 3
quadruple	1 2 1 2	3, 1 2 1	2 3, 1 2	1 2 3, 1	2 1 2 3
half	1 --	-- 2	2 --	-- 3	1 --

As the tempo gets fast, use the syllables "TA KA, TA KI TA" in place of "one, two, one, two, three" for clarity and speed.

Now try the subdivision 3+2 against the 2+3 claps:

c/

1	2	3	4	5
clap		clap		
one	two	three	one	two
1 2	3 1	2, 1	2 3	1 2
1 2 3 1	2, 1 2 3	1 2, 1 2	3 1 2, 1	2 3 1 2
1 --	-- 1	2 --	-- 2	3 --

As in example b, change to the syllables "TA KI TA, TA KA" in place of "one, two, three, one, two" when the tempo becomes fast.

d/

Now still keeping the claps the same, make up your own rhythms freely using the syllable "da da da da, etc.".

This is indispensable practice for learning to improvise freely in this meter.

The same process must now be repeated using the 3+2 basic subdivision:

3+2

a/

	1	2	3	4	5
	clap	little finger	fourth finger	clap	little finger
single	1	2	3	4	5
double	1 2	3 4	5, 1	2 3	4 5
quadruple	1 2 3 4	5, 1 2 3	4 5, 1 2	3 4 5, 1	2 3 4 5
half	1 --	-- 4	2 --	-- 5	3 --

b/

1	2	3	4	5
clap			clap	
1	2	3	1	2
1 2	3 1	2, 1	2 3	1 2
1 2 3 1	2, 1 2 3	1 2, 1 2	3 1 2, 1	2 3 1 2
1 --	-- 1	2 --	-- 2	3 --

(TA KI TA, TA KA when tempo gets fast)

c/

1	2	3	4	5
clap			clap	
1	2	1	2	3
1 2	1 2	3, 1	2 1	2 3
1 2 1 2	3, 1 2 1	2 3, 1 2	1 2 3, 1	2 1 2 3
1 --	-- 2	2 --	-- 3	1 --

(TA KA, TA KI TA)

d/ Improve other rhythms on this 3+2 pattern

The routine is the same for 7 and 9 except that there are more possible subdivisions:

7

3+2+2

a/

	1	2	3	4	5	6	7
	clap	little finger	fourth finger	clap	little finger	clap	little finger
basic	1	2	3	4	5	6	7
single	1	2	3	4	5	6	7
double	1 2	3 4	5 6	7, 1	2 3	4 5	6 7
quadruple	1 2 3 4	5 6 7, 1	2 3 4 5	6 7, 1 2	3 4 5 6	7, 1 2 3	4 5 6 7
half	1 --	-- 5	2 --	-- 6	3 --	-- 7	4 --

b/

1	2	3	4	5	6	7
clap			clap		clap	
1	2	3	1	2	1	2
1 2	3 1	2 1	2, 1	2 3	1 2	1 2
1 2 3 1	2 1 2, 1	2 3 1 2	1 2, 1 2	3 1 2 1	2, 1 2 3	1 2 1 2
1 --	-- 2	2 --	-- 1	3 --	-- 2	1 --

(TA KI TA, TA KA, TA KA)

c/

1	2	3	4	5	6	7
clap			clap		clap	
1	2	1	2	1	2	3
1 2	1 2	1 2	3, 1	2 1	2 1	2 3
1 2 1 2	1 2 3, 1	2 1 2 1	2 3, 1 2	1 2 1 2	3, 1 2 1	2 1 2 3
1 --	-- 1	2 --	-- 2	1 --	-- 3	2 --

(TA KA, TA KA, TA KI TA)

d/ ~~Improvise rhythms on this 3+2+2 pattern.~~

1	2	3	4	5	6	7
clap			clap		clap	
1	2	1	2	3	1	2
1 2	1 2	3 1	2, 1	2 1	2 3	1 2
1 2 1 2	3 1 2, 1	2 1 2 3	1 2, 1 2	1 2 3 1	2, 1 2 1	2 3 1 2
1 --	-- 3	2 --	-- 1	1 --	-- 2	2 --

(TA KA, TA KI TA, TA KA)

e/ Improvise rhythms on this 3+2+2 pattern.

2+2+3

a/

1	2	3	4	5	6	7
clap	little finger	clap	little finger	clap	little finger	fourth finger
1	2	3	4	5	6	7
1 2	3 4	5 6	7, 1	2 3	4 5	6 7
1 2 3 4	5 6 7, 1	2 3 4 5	6 7, 1 2	3 4 5 6	7, 1 2 3	4 5 6 7
1 --	-- 5	2 --	-- 6	3 --	-- 7	4 --

b/

1	2	3	4	5	6	7
clap		clap		clap		
1	2	1	2	1	2	3
1 2	1 2	1 2	3, 1	2 1	2 1	2 3
1 2 1 2	1 2 3, 1	2 1 2 1	2 3, 1 2	1 2 1 2	3, 1 2 1	2 1 2 3
1 --	-- 1	2 --	-- 2	1 --	-- 3	2 --

(TA KA, TA KA, TA KI TA)

c/

1	2	3	4	5	6	7
clap		clap		clap		
1	2	3	1	2	1	2
1 2	3 1	2 1	2, 1	2 3	1 2	1 2
1 2 3 1	2 1 2, 1	2 3 1 2	1 2, 1 2	3 1 2 1	2, 1 2 3	1 2 1 2
1 --	-- 2	2 --	-- 1	3 --	-- 2	1 --

(TA KI TA, TA KA, TA KA)

d/

1	2	3	4	5	6	7
clap		clap		clap		
1	2	1	2	3	1	2
1 2	1 2	3 1	2, 1	2 1	2 3	1 2
1 2 1 2	3 1 2, 1	2 1 2 3	1 2, 1 2	1 2 3 1	2, 1 2 1	2 3 1 2
1 --	-- 3	2 --	-- 1	1 --	-- 2	2 --

(TA KA, TA KI TA, TA KA)

e/ Improve rhythms on this 2+2+3 pattern.

2+3+2

a/

1	2	3	4	5	6	7
clap	little finger	clap	little finger	fourth finger	clap	little finger
1	2	3	4	5	6	7
1 2	3 4	5 6	7, 1	2 3	4 5	6 7
1 2 3 4	5 6 7, 1	2 3 4 5	6 7, 1 2	3 4 5 6	7, 1 2 3	4 5 6 7
1 --	-- 3	2 --	-- 1	1 --	-- 2	2 --

b/

1	2	3	4	5	6	7
clap		clap			clap	
1	2	1	2	3	1	2
1 2	1 2	3 1	2, 1	2 1	2 3	1 2
1 2 1 2	3 1 2, 1	2 1 2 3	1 2, 1 2	1 2 3 1	2, 1 2 1	2 3 1 2
1 --	-- 3	2 --	-- 1	1 --	-- 2	2 --

(TA KA, TA KI TA, TA KA)

c/

1	2	3	4	5	6	7
clap		clap			clap	
1	2	3	1	2	1	2
1 2	3 1	2 1	2, 1	2 3	1 2	1 2
1 2 3 1	2 1 2, 1	2 3 1 2	1 2, 1 2	3 1 2 1	2, 1 2 3	1 2 1 2
1 --	-- 2	2 --	-- 1	3 --	-- 2	1 --

(TA KI TA, TA KA, TA KA)

d/

1	2	3	4	5	6	7
clap		clap			clap	
1	2	1	2	1	2	3
1 2	1 2	1 2	3, 1	2 1	2 1	2 3
1 2 1 2	1 2 3, 1	2 1 2 1	2 3, 1 2	1 2 1 2	3, 1 2 1	2 1 2 3
1 --	-- 1	2 --	-- 2	1 --	-- 3	2 --

(TA KA, TA KA, TA KI TA)

e/ Improve rhythms on this 2+3+2 pattern.

9

2+2+2+3

a/

1	2	3	4	5	6	7	8	9
clap	little finger	clap	little finger	clap	little finger	clap	little finger	fourth finger
1	2	3	4	5	6	7	8	9
1 2	3 4	5 6	7 8	9, 1	2 3	4 5	6 7	8 9
1 2 3 4	5 6 7 8	9, 1 2 3	4 5 6 7	8 9, 1 2	3 4 5 6	7 8 9, 1	2 3 4 5	6 7 8 9
1 --	-- 6	2 --	-- 7	3 --	-- 8	4 --	-- 9	5 --

b/

1	2	3	4	5	6	7	8	9
clap		clap		clap		clap		
1	2	1	2	1	2	1	2	3
1 2	1 2	1 2	1 2	3, 1	2 1	2 1	2 1	2 3
1 2 1 2	1 2 1 2	3, 1 2 1	2 1 2 1	2 3, 1 2	1 2 1 2	1 2 3, 1	2 1 2 1	2 1 2 3
1 --	-- 2	2 --	-- 1	1 --	-- 2	2 --	-- 3	1 --

(TA KA, TA KA, TA KA, TA KI TA)

c/

1	2	3	4	5	6	7	8	9
clap		clap		clap		clap		
1	2	3	1	2	1	2	1	2
1 2	3 1	2 1	2 1	2, 1	2 3	1 2	1 2	1 2
1 2 3 1	2 1 2 1	2, 1 2 3	1 2 1 2	1 2, 1 2	3 1 2 1	2 1 2, 1	2 3 1 2	1 2 1 2
1 --	-- 1	2 --	-- 2	3 --	-- 1	1 --	-- 2	2 --

(TA KI TA, TA KA, TA KA, TA KA)

d/

1	2	3	4	5	6	7	8	9
clap	clap	clap		clap		clap		
1	2	1	2	1	2	3	1	2
1 2	1 2	1 2	3 1	2, 1	2 1	2 1	2 3	1 2
1 2 1 2	1 2 3 1	2, 1 2 1	2 1 2 3	1 2, 1 2	1 2 1 2	3 1 2, 1	2 1 2 1	2 3 1 2
1 --	-- 2	2 --	-- 3	1 --	-- 1	2 --	-- 2	1 --

(TA KA, TA KA, TA KI TA, TA KA)

e/

1	2	3	4	5	6	7	8	9
clap		clap		clap		clap		
1	2	1	2	3	1	2	1	2
1 2	1 2	3 1	2 1	2, 1	2 1	2 3	1 2	1 2
1 2 1 2	3 1 2 1	2, 1 2 1	2 3 1 2	1 2, 1 2	1 2 3 1	2 1 2, 1	2 1 2 3	1 2 1 2
1	--	2	--	1	--	2	--	3
--	1	--	2	--	1	--	2	--

(TA KA, TA KI TA, TA KA, TA KA)

f/ Improve rhythms on this 2+2+2+3 pattern.

3+2+2+2

a/

1	2	3	4	5	6	7	8	9
clap			clap		clap		clap	
1	2	3	4	5	6	7	8	9
1 2	3 4	5 6	7 8	9, 1	2 3	4 5	6 7	8 9
1 2 3 4	5 6 7 8	9, 1 2 3	4 5 6 7	8 9, 1 2	3 4 5 6	7 8 9, 1	2 3 4 5	6 7 8 9
1	--	2	--	3	--	4	--	5
--	6	--	7	--	8	--	9	--

B/

1	2	3	4	5	6	7	8	9
clap			clap		clap		clap	
1	2	3	1	2	1	2	1	2
1 2	3 1	2 1	2 1	2, 1	2 3	1 2	1 2	1 2
1 2 3 1	2 1 2 1	2, 1 2 3	1 2 1 2	1 2, 1 2	3 1 2 1	2 1 2, 1	2 3 1 2	1 2 1 2
1	--	2	--	3	--	1	--	2
--	1	--	2	--	1	--	2	--

(TA KI TA, TA KA, TA KA, TA KA)

c/

1	2	3	4	5	6	7	8	9
clap			clap		clap		clap	
1	2	1	2	1	2	1	2	3
1 2	1 2	1 2	1 2	3, 1	2 1	2 1	2 1	2 3
1 2 1 2	1 2 1 2	3, 1 2 1	2 1 2 1	2 3, 1 2	1 2 1 2	1 2 3, 1	2 1 2 1	2 1 2 3
1	--	2	--	1	--	2	--	1
--	2	--	1	--	2	--	3	--

(TA KA, TA KA, TA KA, TA KI TA)

d/

1	2	3	4	5	6	7	8	9
clap			clap		clap		clap	
1	2	1	2	1	2	3	1	2
1 2	1 2	1 2	3, 1	2 1	2 1	2 3		
1 2	1 2	1 2	3 1	2, 1	2 1	2 1	2 3	1 2
1 2 1 2	1 2 3 1	2, 1 2 1	2 1 2 3	1 2, 1 2	1 2 1 2	3 1 2, 1	2 1 2 1	2 3 1 2
1	--	2	--	1	--	2	--	1
--	2	--	3	--	1	--	2	--

(TA KA, TA KA, TA KI TA, TA KA)

e/

1	2	3	4	5	6	7	8	9
clap			clap		clap		clap	
1	2	1	2	3	1	2	1	2
1 2	1 2	3 1	2 1	2, 1	2 1	2 3	1 2	1 2
1 2 1 2	3 1 2 1	2, 1 2 1	2 3 1 2	1 2, 1 2	1 2 3 1	2 1 2, 1	2 1 2 3	1 2 1 2
1	--	2	--	1	--	2	--	3
--	1	--	2	--	1	--	2	--
1	--							

(TA KA, TA KI TA, TA KA, TA KA)

f/ Improve rhythms on this 3+2+2+2 pattern.

$$\underline{2+2+3+2}$$

a/

1	2	3	4	5	6	7	8	9
clap		clap		clap			clap	
1	2	3	4	5	6	7	8	9
1 2	3 4	5 6	7 8	9, 1	2 3	4 5	6 7	8 9
1 2 3 4	5 6 7 8	9, 1 2 3	4 5 6 7	8 9, 1 2	3 4 5 6	7 8 9, 1	2 3 4 5	6 7 8 9
1 --	-- 6	2 --	-- 7	3 --	-- 8	4 --	-- 9	5 --

B/

1	2	3	4	5	6	7	8	9
clap		clap		clap			clap	
1	2	1	2	1	2	3	1	2
1 2	1 2	1 2	3 1	2, 1	2 1	2 1	2 3	1 2
1 2 1 2	1 2 3 1	2, 1 2 1	2 1 2 3	1 2, 1 2	1 2 1 2	3 1 2, 1	2 1 2 1	2 3 1 2
1 --	-- 2	2 --	-- 3	1 --	-- 1	2 --	-- 2	1 --

(TA KA, TA KA, TA KI TA, TA KA)

c/

1	2	3	4	5	6	7	8	9
clap		clap		clap			clap	
1	2	1	2	1	2	1	2	3
1 2	1 2	1 2	1 2	3, 1	2 1	2 1	2 1	2 3
1 2 1 2	1 2 1 2	3, 1 2 1	2 1 2 1	2 3, 1 2	1 2 1 2	1 2 3, 1	2 1 2 1	2 1 2 3
1 --	-- 2	2 --	-- 1	1 --	-- 2	2 --	-- 3	1 --

(TA KA, TA KA, TA KA, TA KI TA)

d/

1	2	3	4	5	6	7	8	9
clap		clap		clap			clap	
1	2	3	1	2	1	2	1	2
1 2	3 1	2 1	2 1	2, 1	2 3	1 2	1 2	1 2
1 2 3 1	2 1 2 1	2, 1 2 3	1 2 1 2	1 2, 1 2	3 1 2 1	2 1 2, 1	2 3 1 2	1 2 1 2
1 --	-- 1	2 --	-- 2	3 --	-- 1	1 --	-- 2	2 --

(TA KI TA, TA KA, TA KA, TA KA)

e/

1	2	3	4	5	6	7	8	9
clap		clap		clap			clap	
1	2	1	2	3	1	2	1	2
1 2	1 2	3 1	2 1	2, 1	2 1	2 3	1 2	1 2
1 2 1 2	3 1 2 1	2, 1 2 1	2 3 1 2	1 2, 1 2	1 2 3 1	2 1 2, 1	2 1 2 3	1 2 1 2
1	--	2	--	1	--	2	--	3
--	1	--	2	--	1	--	2	--

(TA KA, TA KI TA, TA KA, TA KA)

f/ Improve rhythms on this ~~2+3+2+2~~ 2+3+2 pattern.2+3+2+2

a/

1	2	3	4	5	6	7	8	9
clap		clap			clap		clap	
1	2	3	4	5	6	7	8	9
1 2	3 4	5 6	7 8	9, 1	2 3	4 5	6 7	8 9
1 2 3 4	5 6 7 8	9, 1 2 3	4 5 6 7	8 9, 1 2	3 4 5 6	7 8 9, 1	2 3 4 5	6 7 8 9
1	--	2	--	3	--	4	--	5
--	6	--	7	--	8	--	9	--

b/

1	2	3	4	5	6	7	8	9
clap		clap			clap		clap	
1	2	1	2	3	1	2	1	2
1 2	1 2	3 1	2 1	2, 1	2 1	2 3	1 2	1 2
1 2 1 2	3 1 2 1	2, 1 2 1	2 3 1 2	1 2, 1 2	1 2 3 1	2 1 2, 1	2 1 2 3	1 2 1 2
1	--	2	--	1	--	2	--	3
--	1	--	2	--	1	--	2	--

(TA KA, TA KI TA, TA KA, TA KA)

c/

1	2	3	4	5	6	7	8	9
clap		clap			clap		clap	
1	2	1	2	1	2	1	2	3
1 2	1 2	1 2	1 2	3, 1	2 1	2 1	2 1	2 3
1 2 1 2	1 2 1 2	3, 1 2 1	2 1 2 1	2 3, 1 2	1 2 1 2	1 2 3, 1	2 1 2 1	2 1 2 3
1	--	2	--	1	--	2	--	1
--	2	--	1	--	2	--	3	--

(TA KA, TA KA, TA KA, TA KI TA)

d/

1	2	3	4	5	6	7	8	9
clap		clap			clap		clap	
1	2	3	1	2	1	2	1	2
1 2	3 1	2 1	2 1	2, 1	2 3	1 2	1 2	1 2
1 2 3 1	2 1 2 1	2, 1 2 3	1 2 1 2	1 2, 1 2	3 1 2 1	2 1 2, 1	2 3 1 2	1 2 1 2
1	--	2	--	3	--	1	--	2
--	1	--	2	--	1	--	2	--

(TA KI TA, TA KA, TA KA, TA KA)

e/

1	2	3	4	5	6	7	8	9
clap		clap			clap		clap	
1	2	1	2	1	2	3	1	2
1 2	1 2	1 2	3 1	2, 1	2 1	2 1	2 3	1 2
1 2 1 2	1 2 3 1	2, 1 2 1	2 1 2 3	1 2, 1 2	1 2 1 2	3 1 2, 1	2 1 2 1	2 3 1 2
1	--	2	--	1	--	2	--	1
--	2	--	3	--	1	--	2	--

(TA KA, TA KA, TA KI TA, TA KA)

f/ Improve rhythms on this 2+2+3+2 pattern.

NOTE: This same procedure may be applied to any longer cycle such as 10, 11, 12, 13, etc.

Again let me caution that these exercises must be done from memory (without looking at the chart) in order to make them "part of you."

If you wish, you may think of the single speed as quarter notes, the double speed as eighth notes, the quadruple speed as sixteenth notes, and the half speed as half notes.

PERCUSSIONISTS: To make use of these preceeding exercises, first clap and say the exercises as indicated, and then keep the basic claps on the bass drum (with optional high hat on the off beats--that is the beats that the little and fourth fingers keep track of), and play the variations with your hands on the other drums.

CHAPTER 4

HOW TO COUNT CROSS RHYTHMS AGAINST 4/4 (OR ANY STEADY PULSE)
FOR PRACTICE

To become familiar with the feeling of playing cross rhythms against a steady pulse, I have found the following to be an excellent and interesting practice method.

Play a phonograph record or tape that has a steady pulse and a simple construction--say a song form with repeated 8 bar phrases (almost any standard popular song) or a 12 bar blues. Keeping track in your mind of the original pattern, count in quarter notes in threes: 123,123,123,etc. The bar lines will not coincide, but keep going nevertheless.

When this is comfortable, double the tempo of the counting--which will mean you are now counting in eighth notes. If the tempo is fast, use the syllables (TA KI TA, TA KI TA, TA KI TA, etc.) for clarity.

Then go on to quadruple time (sixteenth notes).

When you have mastered the threes, do the same thing with 5's, 7's and 9's. Use all of the possible subdivisions of Chapter 3.

For example: 5= 12,123, or 123,12; 7= 123, 12, 12, or 12, 12, 123, and so on.

Next do Chapters 1 and 2 in this manner, by counting the rhythms out loud against the recording.

As more records become available in meters of 5,7,9 etc. in years to come, it will be valuable to do exactly the same thing against these meters.

NOTE: The exercises in this chapter are especially valuable for the improviser, as they help one to feel how one meter sounds against the other, and enables one to be strong and accurate rhythmically in executing cross rhythms.

CHAPTER 5

"KEEPING TAL"

In North India (in South India the terminology and technique vary slightly) there are 32 basic TALA, of which 8 are in general use. These may be thought of as a phrase structure (like a twelve bar blues which has three four bar sections). If each bar of the blues were considered one long beat, this would be roughly analogous to the Tala EKTAL:

EKTAL

(Speed: each number of line b = MM 16 to 384!)

a/ (CLAPS)											
X				2				3	0	4	0
b/ (MATRAS)											
1	2	3	4	5	6	7	8	9	10	11	12
c/ (BOLES)											
Dhin	Dhin	Dha	Ge	tuhrikituh	tin	Na	ka	tin	DG	trkt	Dhin Na

a/ = The basic clap. In counting, one claps where the X and numbers are in this line and waves the hand in the air for the O's. The first clap (X) is called SUM and the circles are called KHALI. This basic clap never changes (although it may be played faster). Notice the extremely wide range of speeds that this TALA may assume.

b/ = Indicates the beats (which are all equal). Each beat is called a MATRA.

c/ = These are the BOLES, the syllables which refer to specific combinations of sounds on the TABLA (a set of two Indian drums played with the fingers; the larger being played with the left hand and is called the BAYAN, and the right hand drum is called the TABLA: both drums together are called TABLA). The BOLES may be played in double and quadruple time while still keeping the speed of the basic claps the same. The BOLES given here are the basic rhythm pattern or THEKA of the TALA. Note that MATRAS 9 and 10 are abbreviations in spelling for number 3 and 4. There are countless ways of varying these basic BOLES during a performance, and they are seldom played in their original version (except when the THEKA is played very fast as in the end of an improvisation).

Much of Indian music is improvised and the Indian drummer has thousands of patterns covering practically every rhythmic subtlety possible at his command and thoroughly memorized. These may be shifted and combined according to the needs of the moment, and often new patterns arise. An analogy here would be the drum rudiments every Western drummer learns, but in India there are thousands! Line c and the example could be thought of then as the basic ride cymbal and high hat beat in most current jazz.

The most common TALA in North Indian music is TEEN TAL which has 16 MATRAS divided into 4 equal groups:

TEEN TAL															
X				2				0				3			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Dha	Dhin	Dhin	Dha	Dha	Dhin	Dhin	Dha	Dha	tin	tin	Ta	Ta	Dhin	Dhin	Dha

The claps come on 1, 5, and 13, and the wave of the hand (KHALI) on 9.

KHALI (0) usually comes half way in the TALAS. Notice that in the KHALI portion of the cycle the lower voiced drum is absent (indicated by the syllables tin and Ta, instead of Dhin and Dha--which would mean the lower drum would play). This gives a certain lightness of timbre which differentiates the KHALI portion of the TALA. In working out variations an Indian drummer will usually observe this "break."

by clapping + waving the hand

This rather elaborate system of counting was devised to help a performer "keep TAL" (his place). It is very useful in some of the long and asymmetrical TALAS. Especially when they are performed at extremely slow tempos.

The following are some of the other basic ~~North-Indian~~ TALAS:

DADRA (6)

X				O			
1	2	3		4	5	6	
Dha	Dhin	Na		Dha	tin	na	

RUPAK (7)

O				1			2
1	2	3		4	5		6 7
tin	tin	na		Dhin	na		Dhin na

KAHARWA (8)

X					O				
1	2	3	4		5	6	7	8	
Dha	Ghey	Na	tin		Na	Kha	Dhin	--	

JHAPTAL (10)

X			2			O			3
1	2		3	4	5	6	7		8 9 10
Dhin	Na		Dhin	Dhin	Na	tin	Na		Dhin Dhin Na

JHUMBRA (14)

X				2					O				3			
1	2	3		4	5	6	7		8	9	10		11	12	13	14
Dhin	--Dha	trkt		Dhin	Dhin	DhaGhey	trkt		tin	--Ta	trkt		Dhin	Dhin	DhaGhey	trkt
				Dhin	Dha	trkt	Dhin	Dhin	DhaGhey	trkt	tin	Ta	trkt	Dhin	Dhin	

*Refer to EKTAL for pronunciation of trkt.

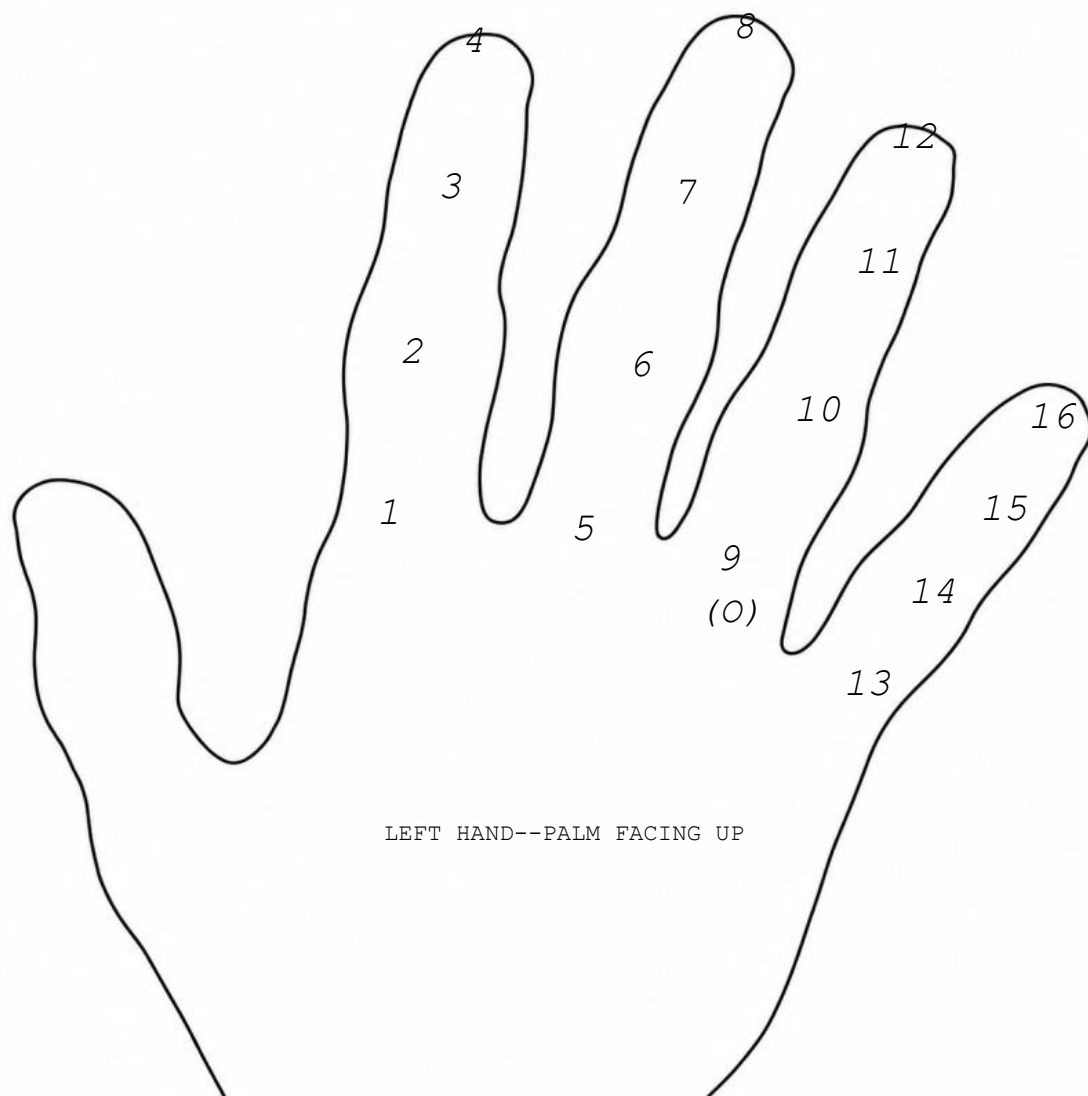
Note: The Dha on beat 2 and the Ta on beat 9 come on the second half of those beats.

Practice saying the BOLES of the TALAS given, in single, double and quadruple speed--keeping the speed of the basic claps exactly the same.

Since it is beyond the scope of this book to include instruction in TABLA playing, I suggest that the percussionist practice saying the BOLES as indicated, and then transcribe these sounds to his own drum set in his own way according to what the sound of the syllables suggest to him.

It is a good idea to keep track of the subsidiary beats between claps by using the fingers of the right hand as explained in Chapter 3.

To work out rhythmic patterns in the various TALAS, the Indians have derived a unique way of counting on one hand:



The thumb of the left hand touches to joints (and ends of fingers) of that hand beginning with #1 in the diagram. If it is a five beat cycle it continues on to #5 and then begins again at #1. In the case of TEEN TAL, it would use all 16 with #9 being the KHALI (O).

This system is extremely valuable in working out TIHAIS (which will be explained later) and complicated cross rhythms, because you can count out loud something completely different, and still know exactly where you are in the original count or TALA simply by looking at your hand.

Now go back to Chapters 1 and 2, and sing or count all the exercises in 4/4 time in TEEN TAL--keeping the claps as an Indian musician would.

CHAPTER 6

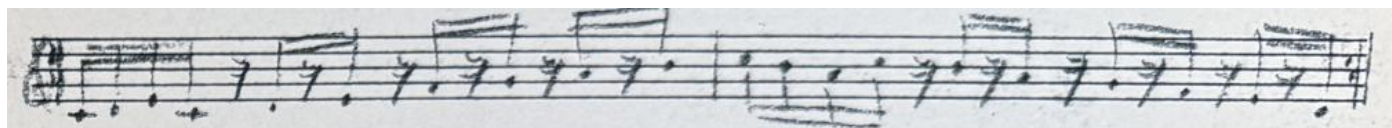
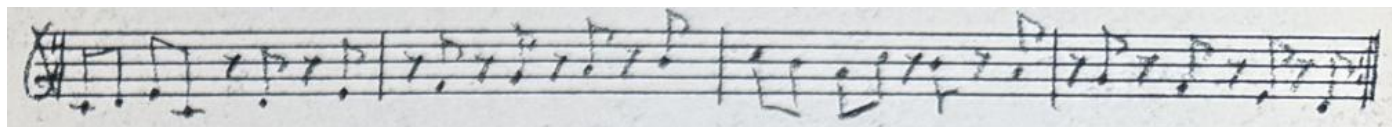
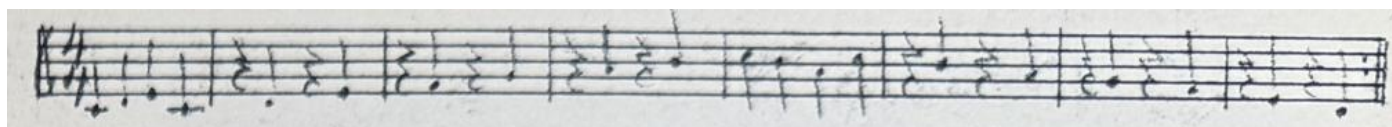
SYNCOPTION

I have expanded on the Indian exercises for mastering synco-
pation shown me by HAR HAR RAO.

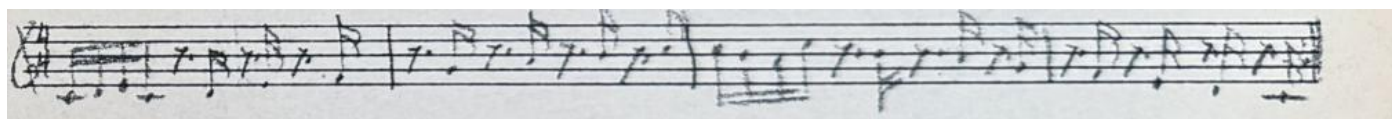
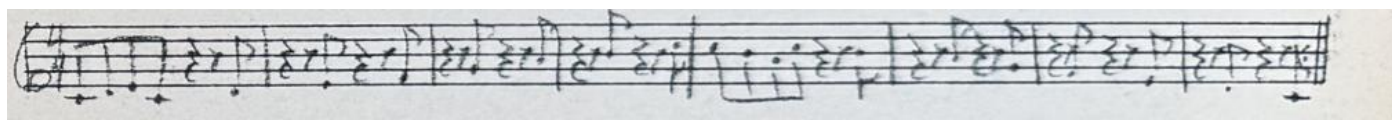
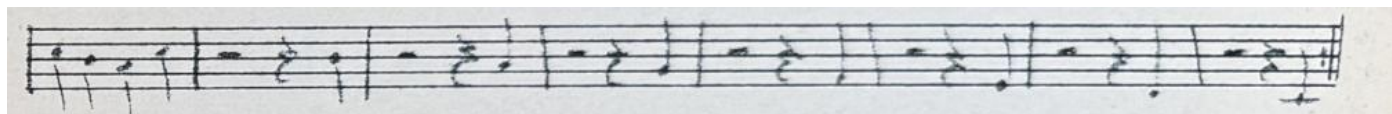
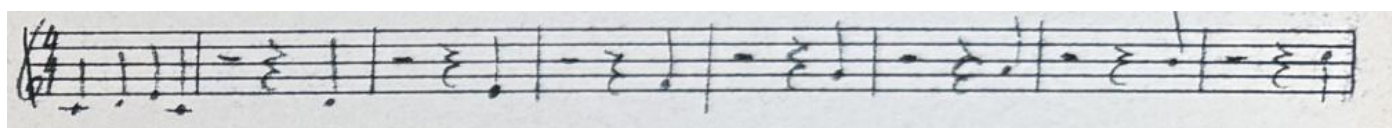
Practice these in the same manner as chapter 1.

"4's"

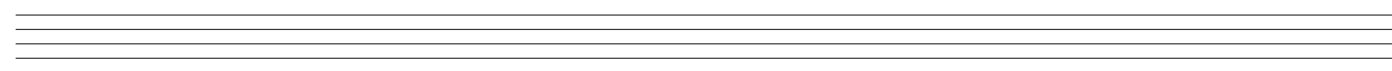
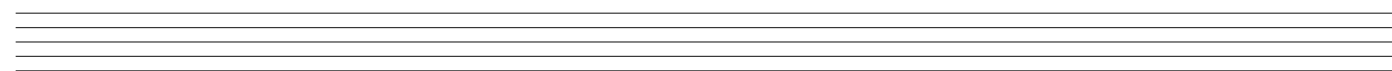
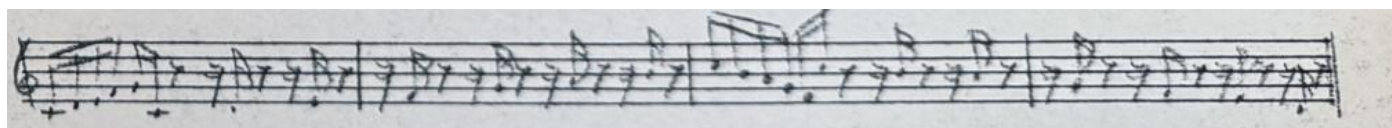
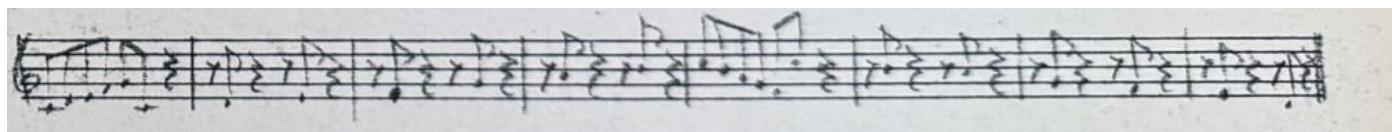
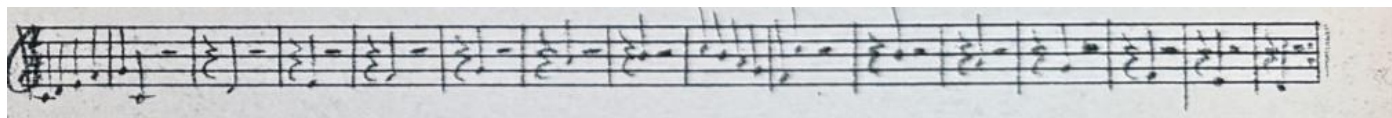
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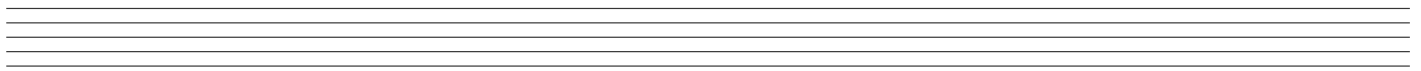
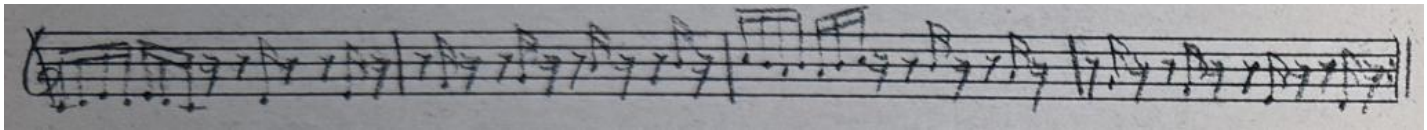
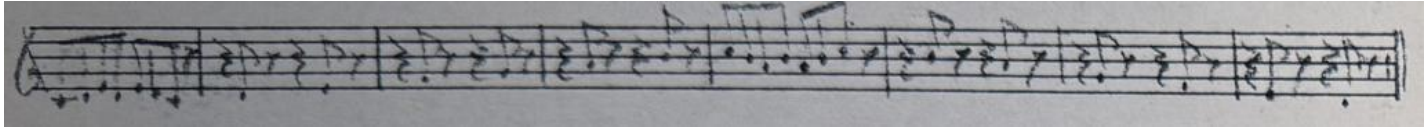
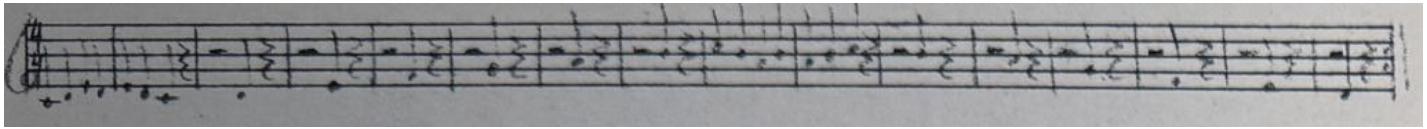
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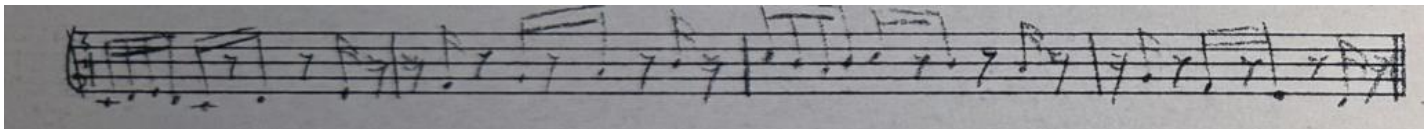
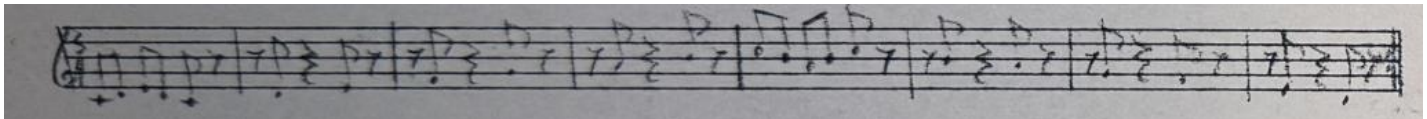
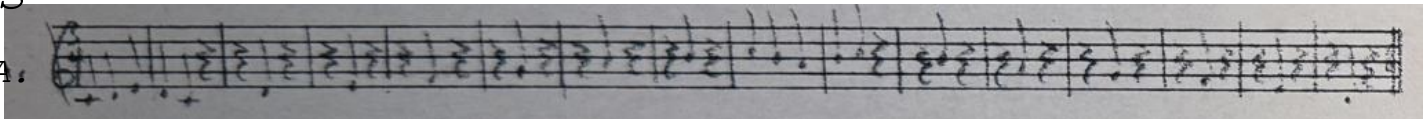


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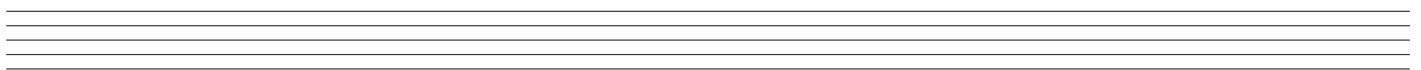
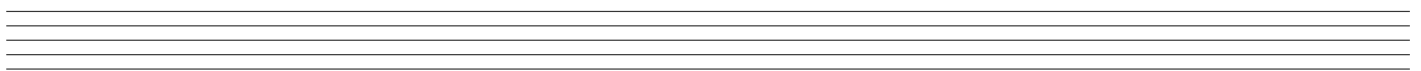
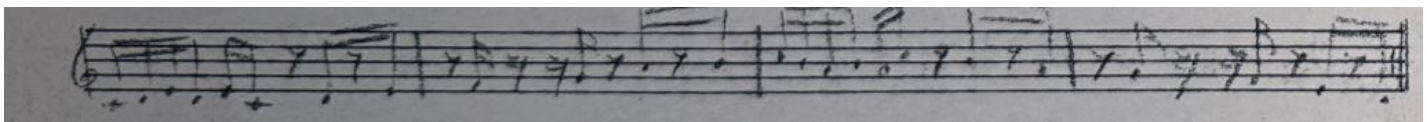
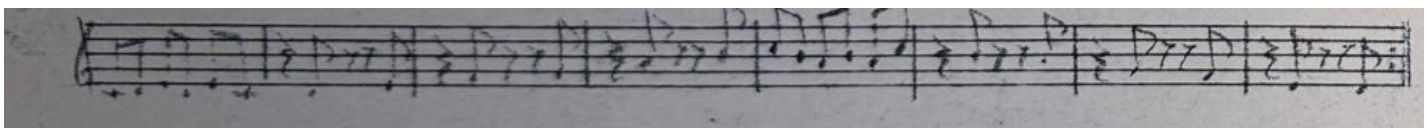
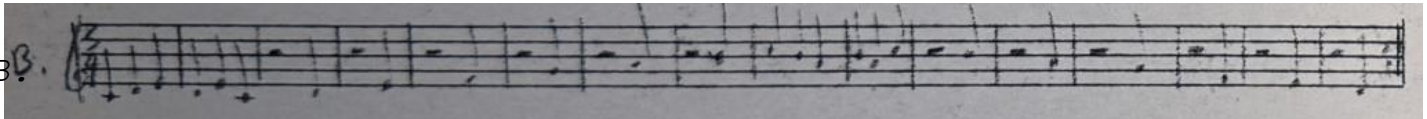


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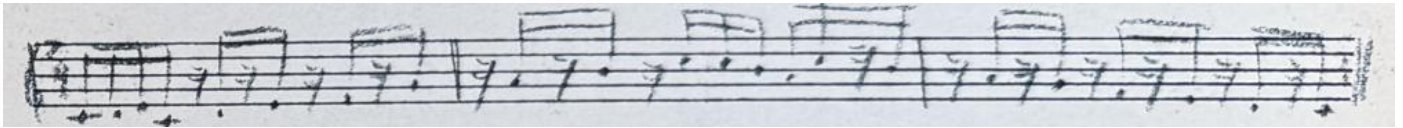
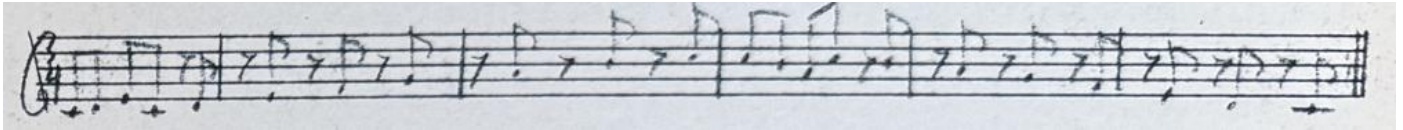
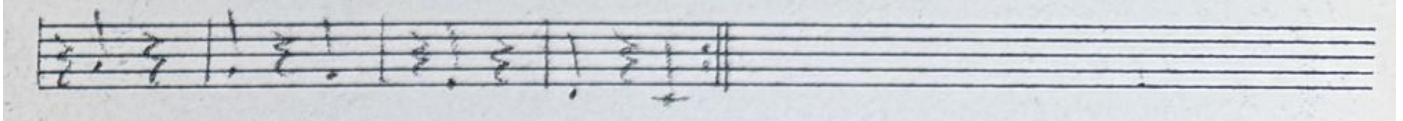
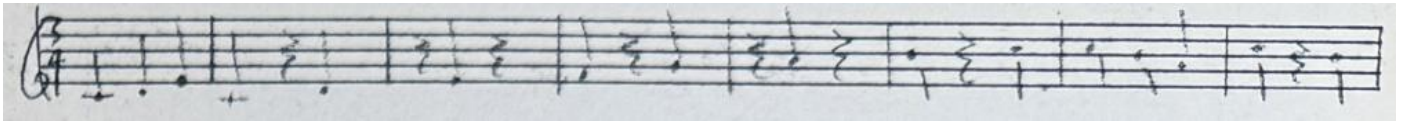
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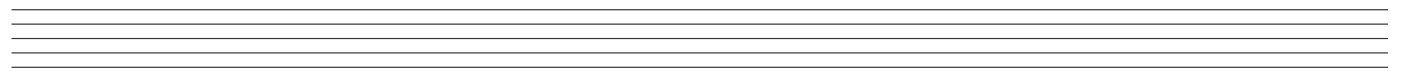
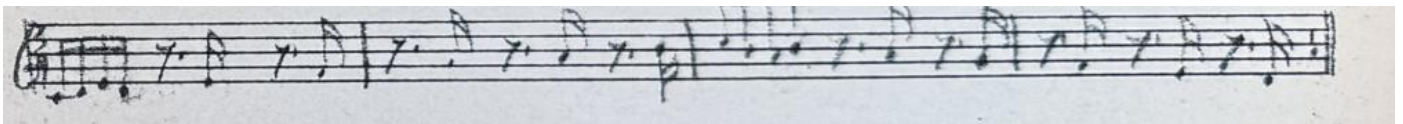
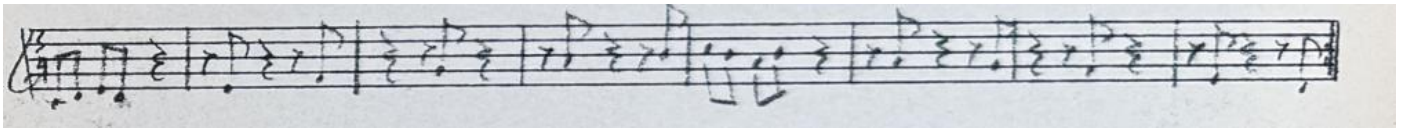
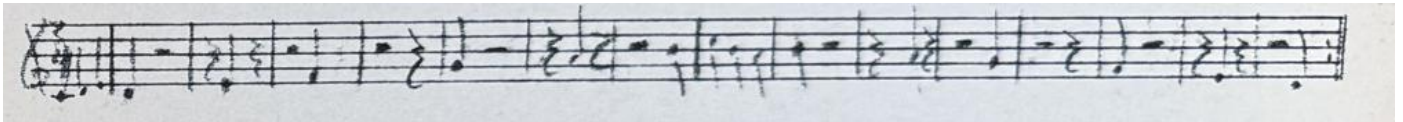
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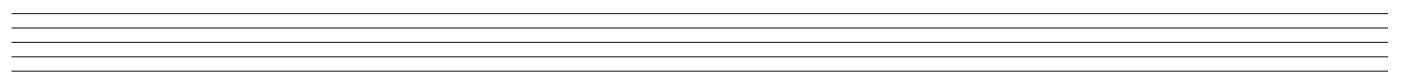
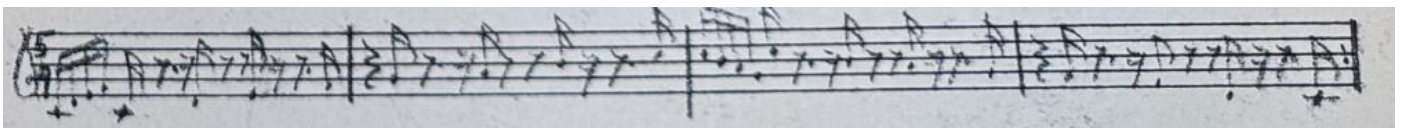
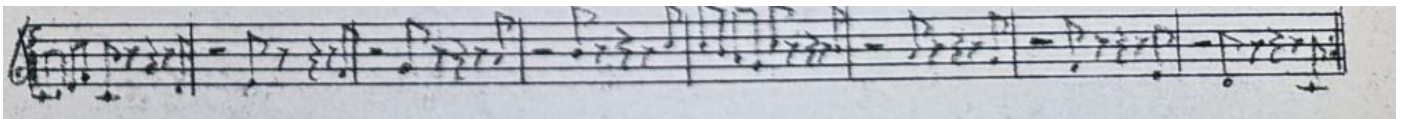
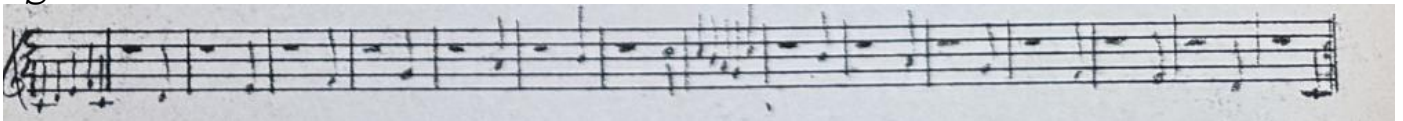


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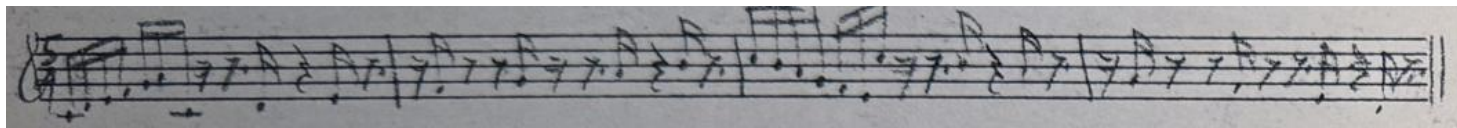
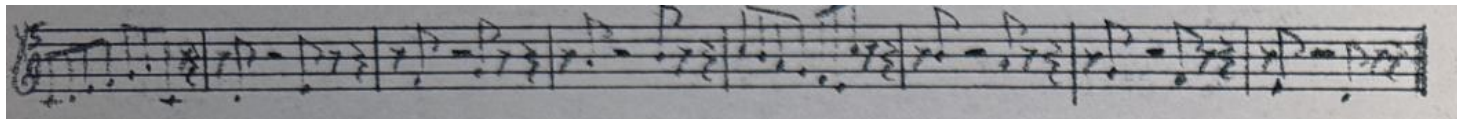
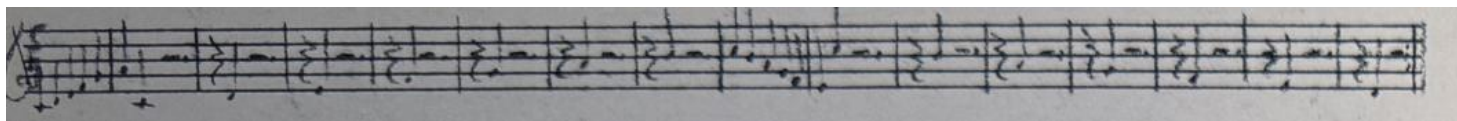


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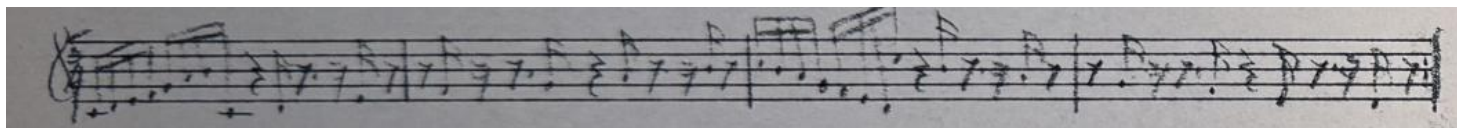
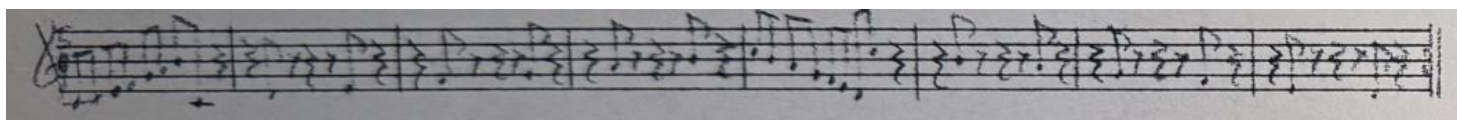
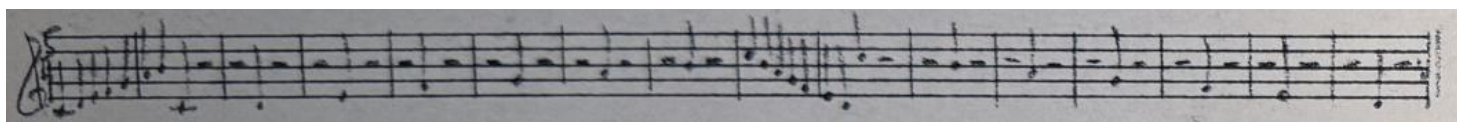
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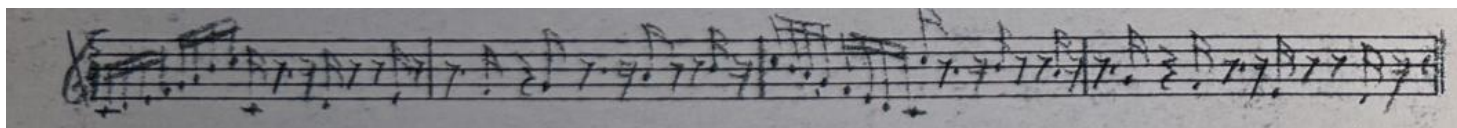
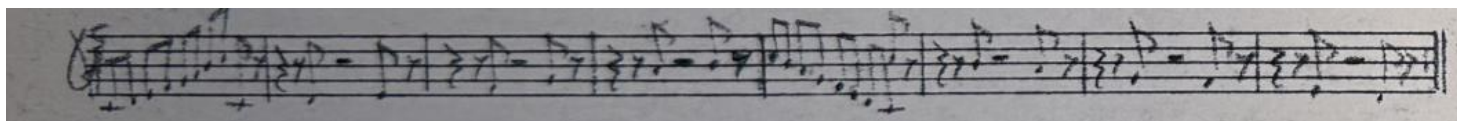
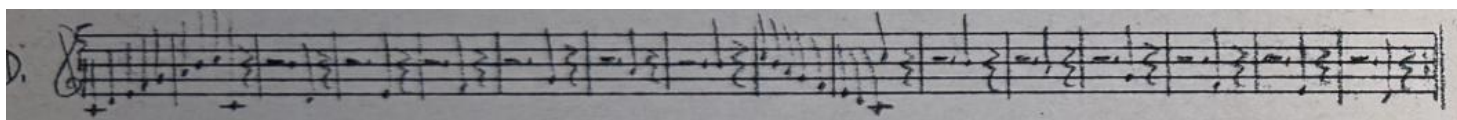
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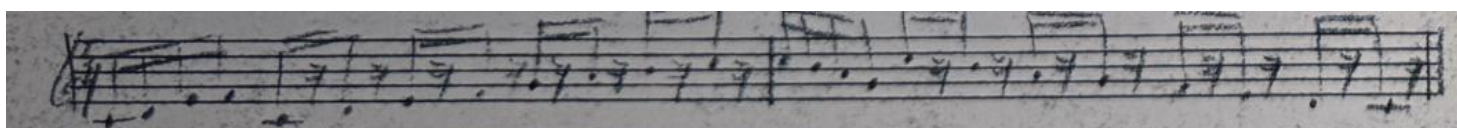
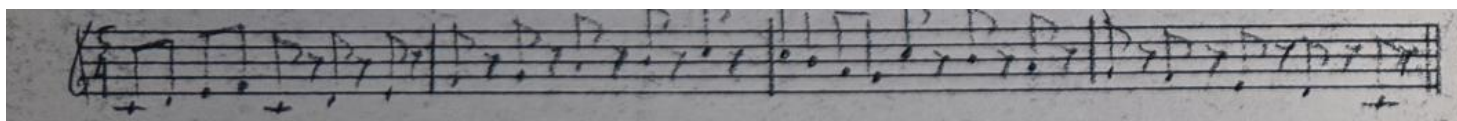
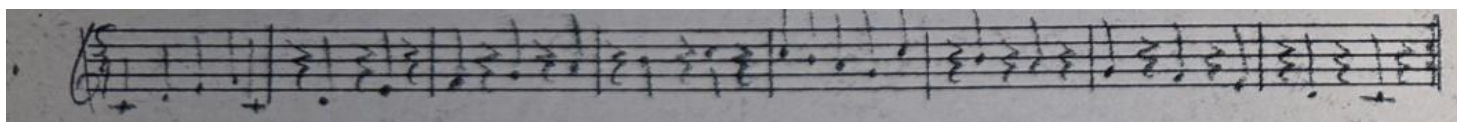
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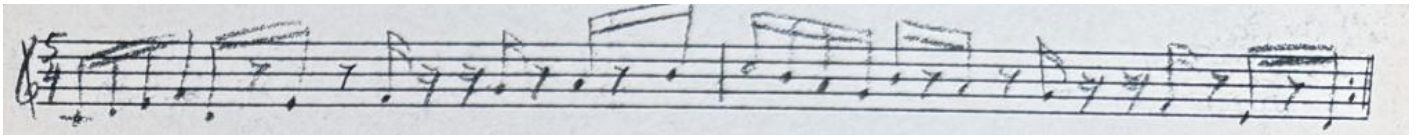
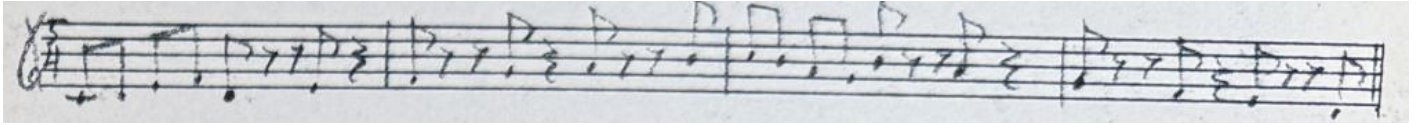
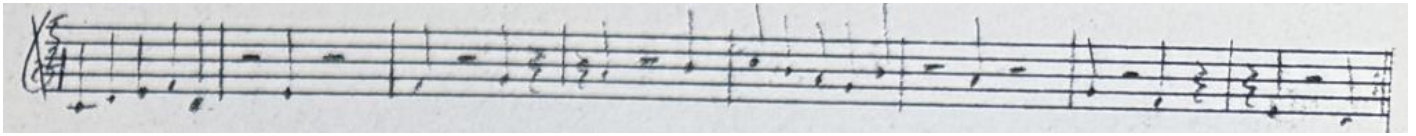
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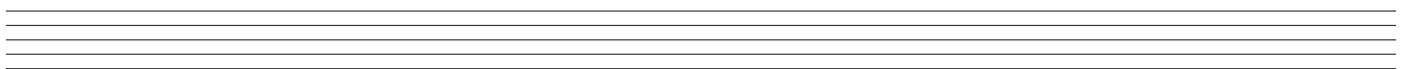
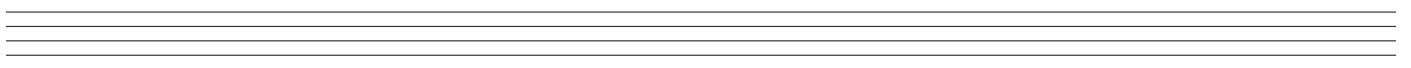
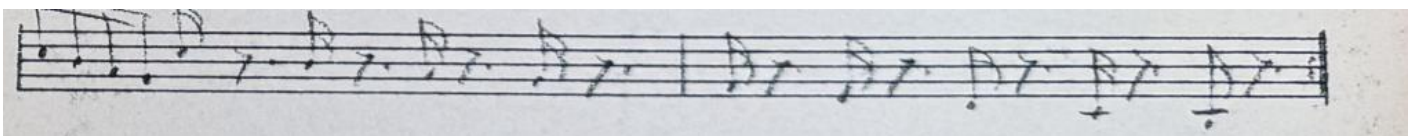
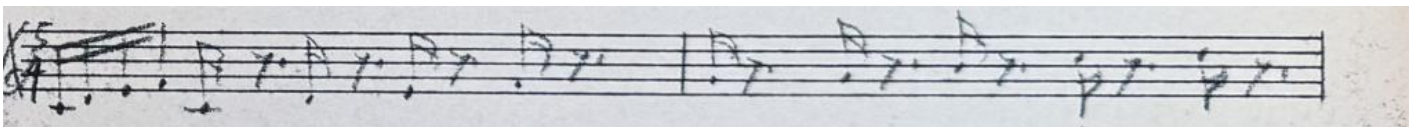
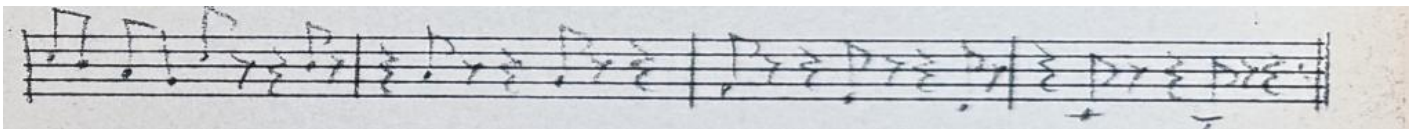
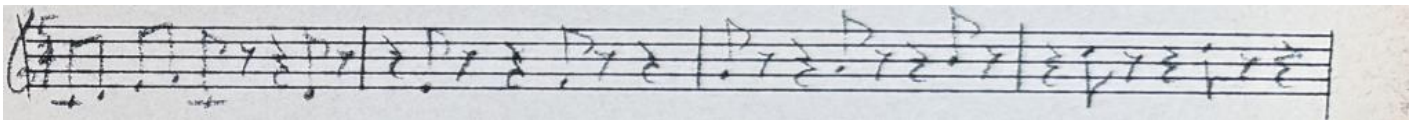
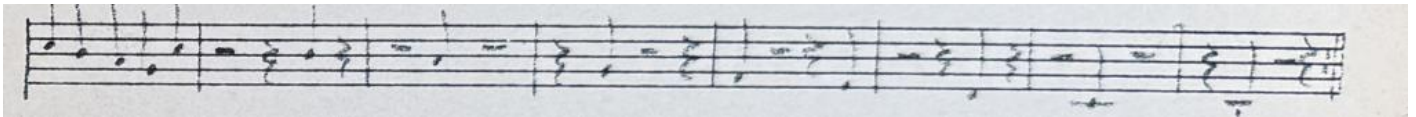
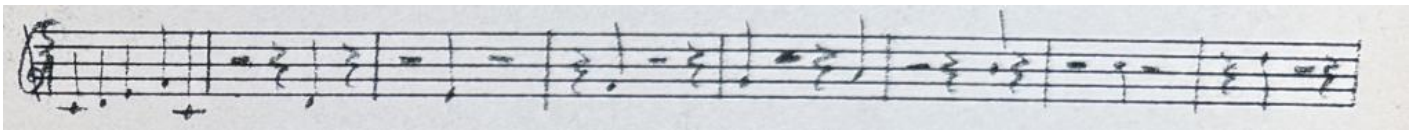
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F.



G.

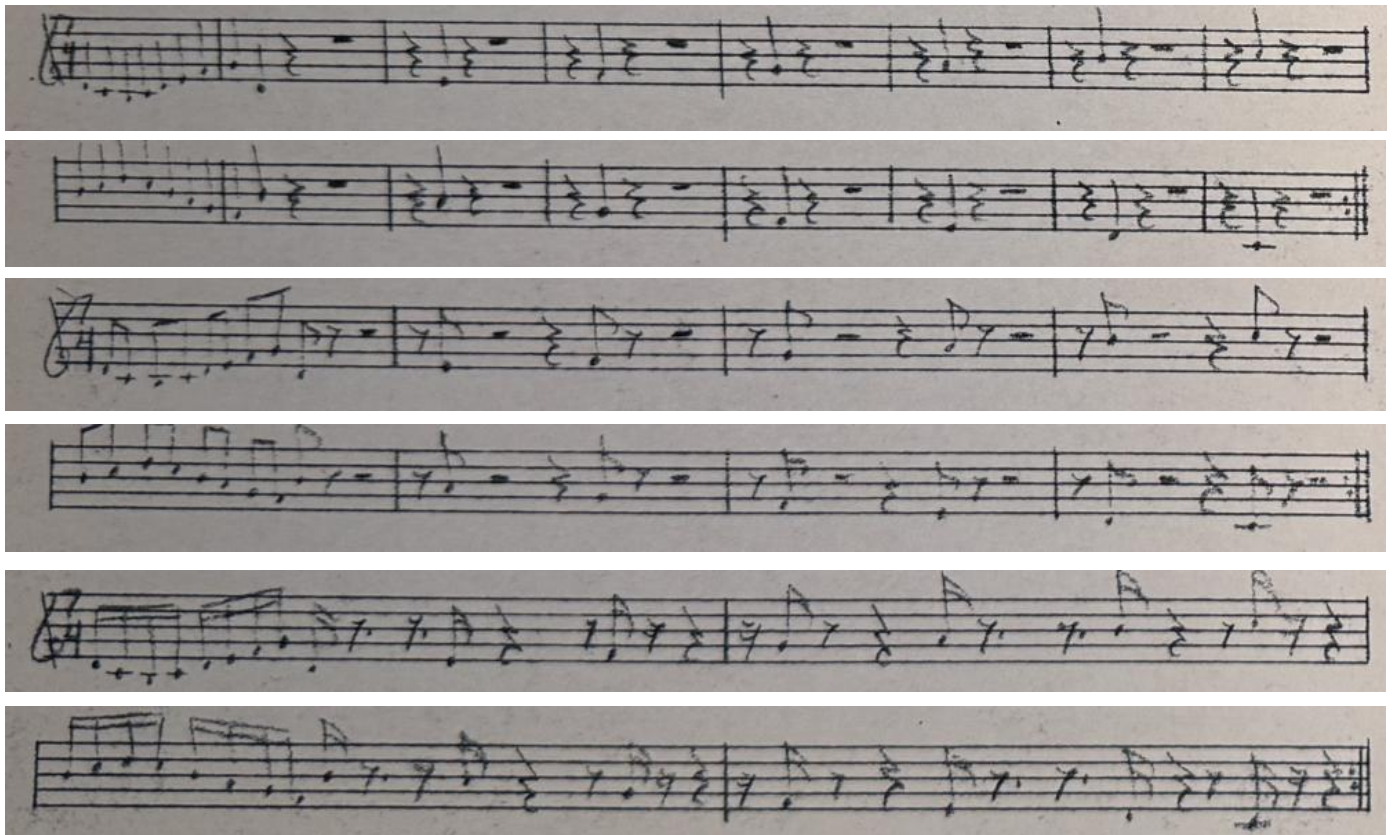


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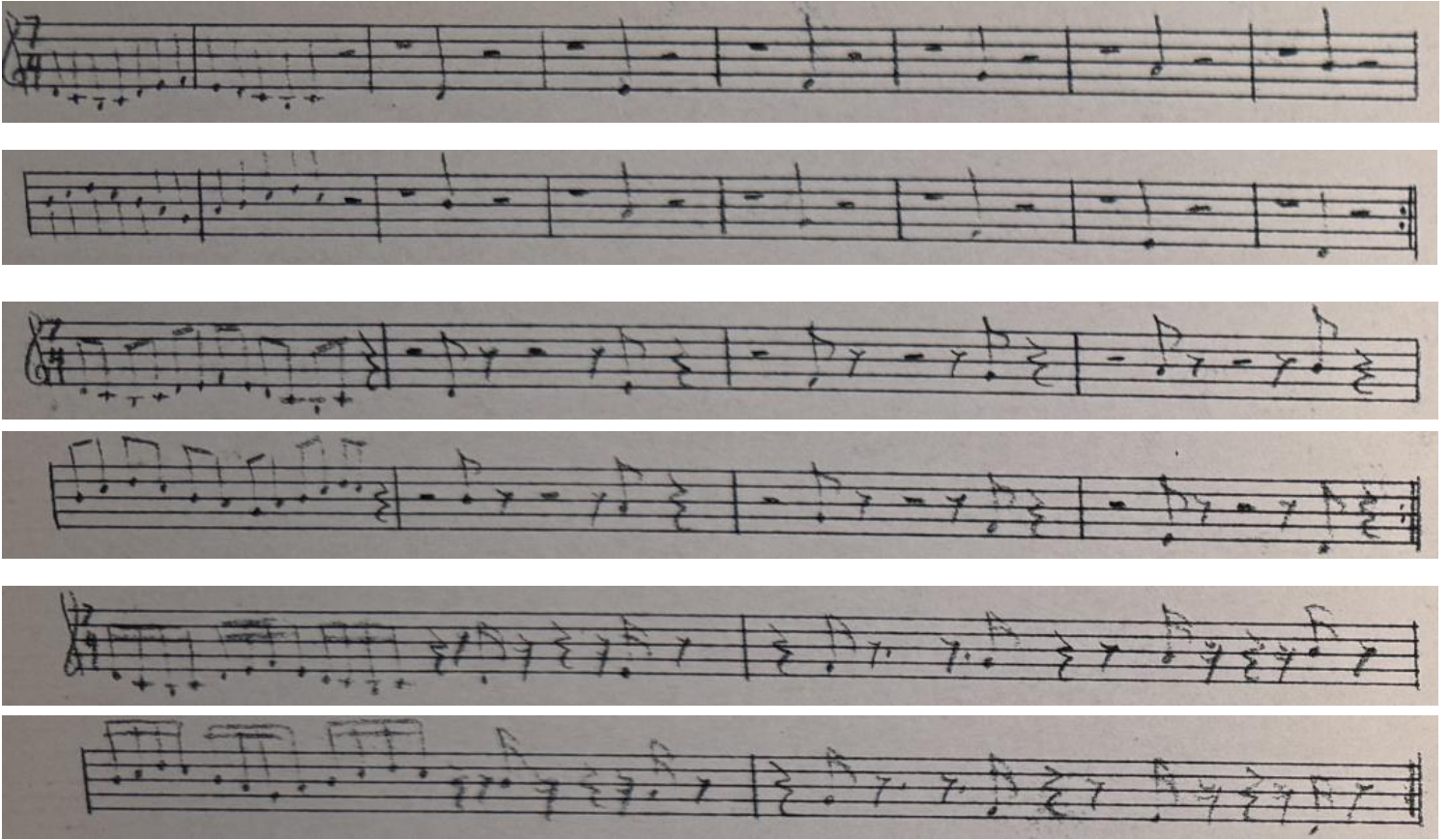
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D.



E.



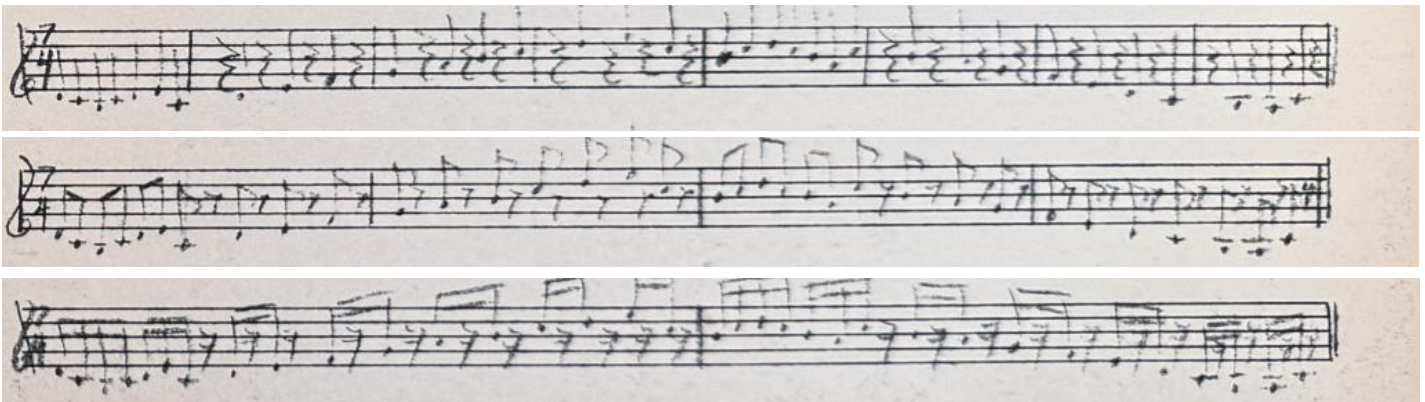
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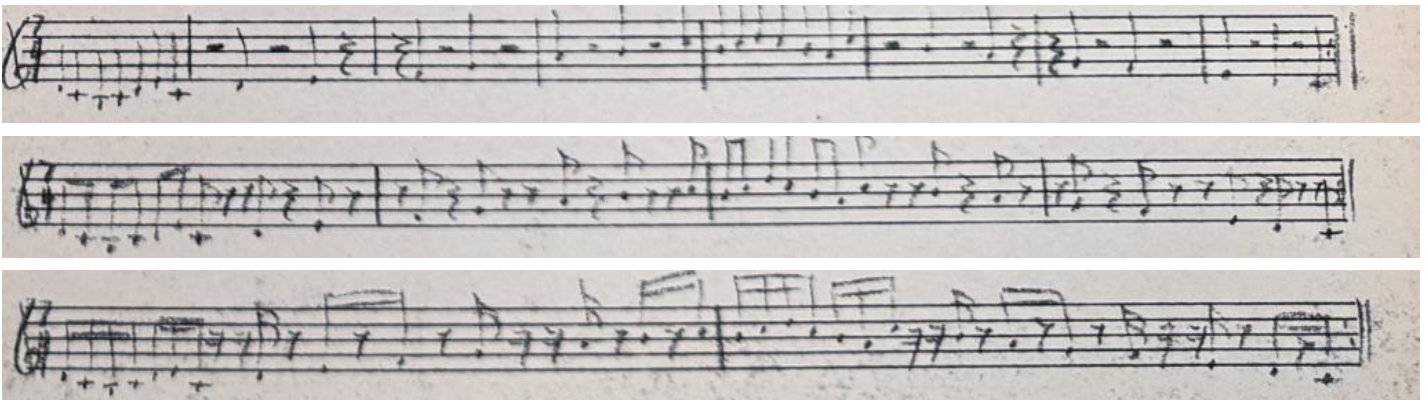
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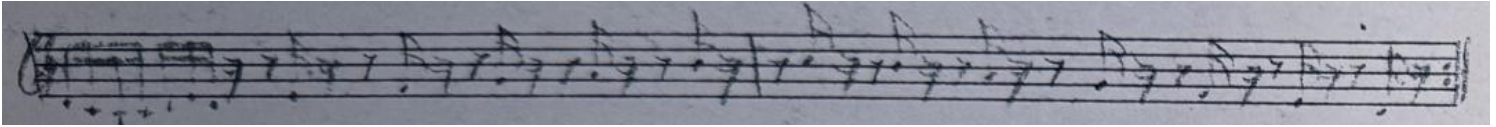
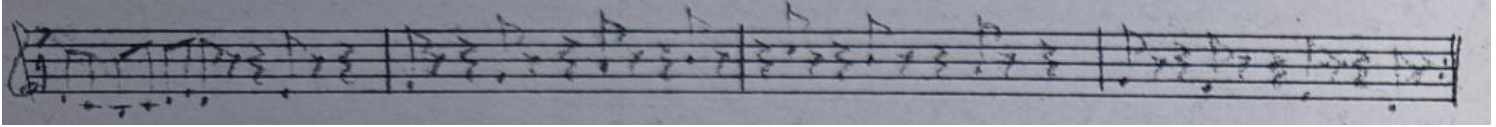
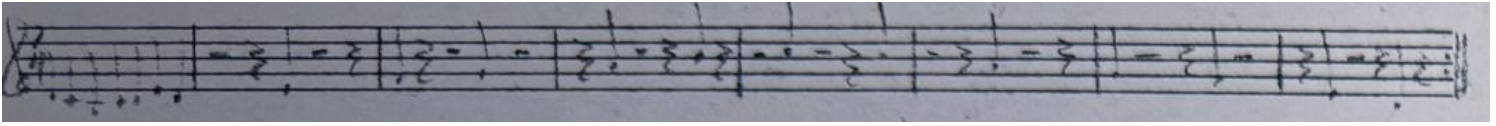
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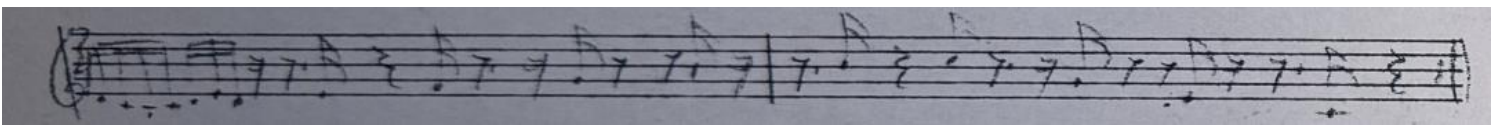
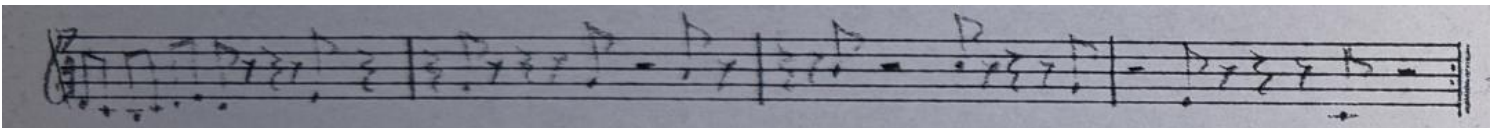
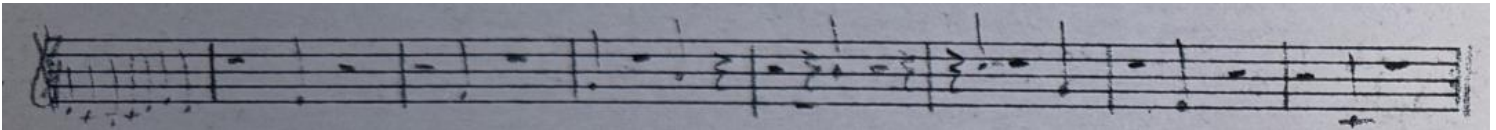
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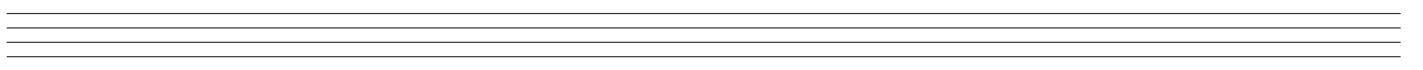
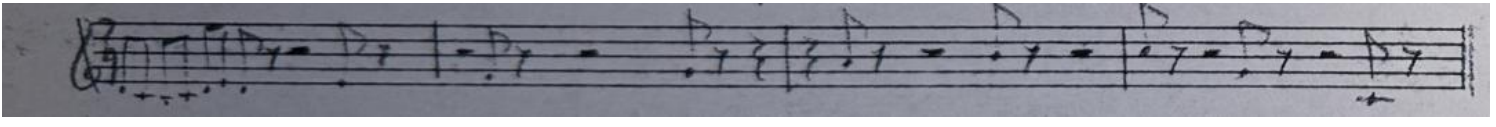
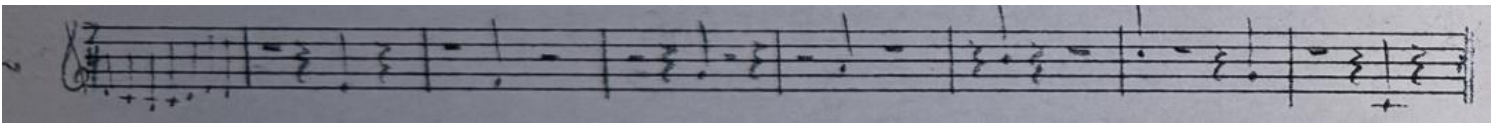
J.



K.



L.



CHAPTER 7

ADVANCED COUNTING EXERCISES

To do these exercises, clap the basic beat and say aloud the numbers or syllables of the cross-rhythm. Continue this at a slow tempo until you get the feel, then double and quadruple the counting of the cross-rhythm, keeping the claps the same.

When this becomes comfortable, start again at a faster speed. When the tempo gets too fast for the double and quadruple times you may eliminate them.

As is the case with all of the exercises in this book, they should be worked up to extremely fast speeds.

1
a/ clap 3; count 2

clap										etc.
count	1	2	1	2	1	2				
(double)	1 2	1 2	1 2	1 2	1 2	1 2				
(quadruple)	1212	1212	1212	1212	1212	1212				

(TA, KA when the tempo gets fast)

2

b/ clap 3; count 4

												etc.
1	2	3	4	1	2	3	4	1	2	3	4	
1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	

(TA KA DI MI)

Notice that the "bar lines" do not coincide here. Pay no attention. Just keep counting. The idea here is just to get the feel of the cross-rhythm. In this and the following exercises, you may if you wish figure out just when the two rhythms will "meet", but it is not essential.

c/ clap 3; count 5

										etc.
1	2	3	4	5	1	2	3	4	5	
1234	5123	4512	3451	2345	1234	1234	5123	4512	3451	

Count the 5 here also as 12, 123; and 123,12.

(TA KA, TA KI TA, OR TA KI TA, TA KA)

d/ clap 3; count 7

etc.

Count the 7 here also 123, 1212; 1212, 123; and 12, 123, 12.
 (TA KI TA, TA KA DI MI, or TA KA DI MI, TA KI TA, or
 TA KA, TA KI TA, TA KA)

2 a/ clap 4; count 3

etc.

(TA KI TA)

b/ clap 4; count 5

etc.

Also: 12, 123; 123, 12.

(TA KA, TA KI TA, or TA KI TA, TA KA)

c/ clap 4 ; count 7

etc.

Also: 123, 1212; 1212, 123; 12, 123, 12.

(TA KI TA, TA KA DI MI, or TA KA DI MI, TA KI TA, or
 TA KA, TA KI TA, TA KA)

3 a/ clap 5; count 2

etc.

etc.

(TA, KA)

b/ clap 5; count 3

																																																																																																																																																																																																
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⁴
a/ clap 7; count 2

 etc.

1	2	1	2	1	2	1
1 2	1 2	1 2	1 2	1 2	1 2	1 2
1212	1212	1212	1212	1212	1212	1212

 etc.

1	2	1	2	1	2	1
1 2	1 2	1 2	1 2	1 2	1 2	1 2
1212	1212	1212	1212	1212	1212	1212

 etc.

1	2	1	2	1	2	1
1 2	1 2	1 2	1 2	1 2	1 2	1 2
1212	1212	1212	1212	1212	1212	1212

(TA KA)

b/ clap 7; count 3

 etc.

1	2	3	1	2	3	1
1 2	3 1	2 3	1 2	3 1	2 3	1 2
1231	2312	3123	1231	2312	3123	1231

 etc.

1	2	3	1	2	3	1
1 2	3 1	2 3	1 2	3 1	2 3	1 2
1231	2312	3123	1231	2312	3123	1231

 etc.

1	2	3	1	2	3	1
1 2	3 1	2 3	1 2	3 1	2 3	1 2
1231	2312	3123	1231	2312	3123	1231

(TA KI TA)

c/ clap 7; count 4

 etc.

1	2	3	4	1	2	3
1 2	3 4	1 2	3 4	1 2	3 4	1 2
1234	1234	1234	1234	1234	1234	1234
1234	1234	1234				

 etc.

1	2	3	4	1	2	3
1 2	3 4	1 2	3 4	1 2	3 4	1 2
1234	1234	1234	1234	1234	1234	1234

							etc.
1	2	3	4	1	2	3	
1 2	3 4	1 2	3 4	1 2	3 4	1 2	
1234	1234	1234	1234	1234	1234	1234	

(TA KA DI MI)

d/ clap 7; count 5

								etc.
1	2	3	4	5	1	2		
1 2	3 4	5 1	2 3	4 5	1 2	3 4		
1234	5123	4512	3451	2345	1234	5123		

								etc.
1	2	3	4	5	1	2		
1 2	3 4	5 1	2 3	4 5	1 2	3 4		
1234	5123	4512	3451	2345	1234	5123		

								etc.
1	2	3	4	5	1	2		
1 2	3 4	5 1	2 3	4 5	1 2	3 4		
1234	5123	4512	3451	2345	1234	5123		

Also: 12, 123; 123, 12.

(TA KA, TA KI TA, or TA KI TA, TA KA)

Drummers should do these exercises first as indicated; and then keep the claps with the bass drum and high hat, playing the cross-rhythms with the hands.

Other instrumentalists should sing and/or play improvised figures in the cross-rhythms given, keeping the basic claps by patting the foot. You may base the improvised figures on patterns given in the preceeding chapters.

Next you must do the same thing with all the TALAS given in chapter 5. Keep the TAL in the prescribed method with the hands, and count the above cross-rhythms against it.

CHAPTER 8

SUPERIMPOSITIONS

To be able to play exact superimpositions (which is essential in today's music), one must first divide the basic beat into as many subdivisions as are in the figure to be superimposed.

Taking a basic example of 3vs.2, divide the 2 into 3 beats each:

1	2
123	123

Then group these subsidiary beats into 2's:

1	2
123	123
121	212

Now put accents on the 1's, leaving the 2's blank, and you have 3 vs. 2 exactly, with no guess work:

a/	1	2
b/	123	123
c/	121	212
d/	1-1	-1-
e/	1-2	-3-

The same procedure applies to the more complex superimpositions.

To practice this and the following superimpositions, clap the basic beats (a)* and count the first subdivision (b) out loud until steady. Then count (c), and finally when that is secure, move to (d) and (e).

Start slowly and strive for accuracy, gradually increasing the speed by degrees until it is as fast as possible. As in the other chapters, when the tempo gets too fast, switch to the syllables (Ta Ki Ta, etc.).

*use the little and fourth fingers to keep track of the subsidiary subdivisions of the more complex meters (as explained earlier).

For additional practice -- especially valuable to percussionists: Once the superimposition is under control, try keeping the basic claps with one hand by hitting against a desk (or on the drum), and do the superimposition with the other hand by also hitting the desk (drum). This will facilitate hearing the two rhythms together as a single complex.

The following chart shows all the possible superimpositions up to 9.

								vs.
(2)	3	(4)	5	(6)	7	(8)	9	2
2	(3)	4	5	(6)	7	8	(9)	3
(2)	3	(4)	5	6	7	(8)	9	4
2	3	4	(5)	6	7	8	9	5
(2)	(3)	4	5	(6)	7	8	9	6
2	3	4	5	6	(7)	8	9	7
(2)	3	(4)	5	6	7	(8)	9	8
2	(3)	4	5	6	7	8	(9)	9

The easy or obvious superimpositions (in parentheses) will not be shown. For the rest, here is the breakdown:

5 vs. 2

a/	<u>1</u>	<u>2</u>
b/	<u>12345</u>	<u>12345</u>
c/	<u>12121</u>	<u>21212</u>
d/	<u>1-1-1</u>	<u>-1-1-</u>
e/	<u>1-2-3</u>	<u>-4-5-</u>

7 vs. 2

1	<u>2</u>
<u>1234567</u>	<u>1234567</u>
<u>1212121</u>	<u>2121212</u>
<u>1-1-1-1</u>	<u>-1-1-1-</u>
<u>1-2-3-4</u>	<u>-5-6-7-</u>

9 vs. 2

1	2
123456789	123456789
121212121	212121212
1-1-1-1-1	-1-1-1-1-
1-2-3-4-5	-6-7-8-9-

2 vs. 3

1	2	3
12	12	12
12	31	23
1-	-1	--
1-	-2	--

4 vs. 3

1	2	3
1234	1234	1234
1231	2312	3123
1--1	--1-	-1--
1--2	--3-	-4--

5 vs. 3

1	2	3
12345	12345	12345
12312	31231	23123
1--1-	-1--1	--1--
1--2-	-3--4	--5--

7 vs. 3

1	2	3
1234567	1234567	1234567
1231231	2312312	3123123
1--1--1	--1--1-	-1--1--
1--2--3	--4--5-	-6--7--

8 vs. 3

1	2	3
12345678	12345678	12345678
12312312	31231231	23123123
1--1--1-	-1--1--1	--1--1--
1--2--3-	-4--5--6	--7--8--

3 vs. 4

1	2	3	4
123	123	123	123
123	412	341	234
1--	-1-	--1	---
1--	-2-	--3	---

5 vs. 4

1	2	3	4
12345	12345	12345	12345
12341	23412	34123	41234
1---1	---1-	--1--	-1---
1---2	---3-	--4--	-5---

6 vs. 4 (SAME AS 3 vs 2)

1	2	3	4
123456	123456	123456	123456
123412	341234	123412	341234
1---1-	--1---	1---1-	--1---
1---2-	--3---	4---5-	--6---

7 vs. 4

1	2	3	4
1234567	1234567	1234567	1234567
1234123	4123412	3412341	2341234
1---1--	-1---1-	--1---1	---1---
1---2--	-3---4-	--5---6	---7---

9 vs. 4

1	2	3	4
123456789	123456789	123456789	123456789
123412341	234123412	341234123	412341234
1---1---1	---1---1-	--1---1--	-1---1---
1---2---3	---4---5-	--6---7--	-8---9---

2 vs. 5

1	2	3	4	5
12	12	12	12	12
12	34	51	23	45
1-	--	-1	--	--
1-	--	-2	--	--

3 vs. 5

1	2	3	4	5
123	123	123	123	123
123	451	234	512	345
1--	--1	---	-1-	---
1--	--2	---	-3-	---

4 vs. 5

1	2	3	4	5
1234	1234	1234	1234	1234
1234	5123	4512	3451	2345
1---	-1--	--1-	---1	----
1---	-2--	--3-	---4	----

6 vs. 5

1	2	3	4	5
123456	123456	123456	123456	123456
123451	234512	345123	451234	512345
1----	1----	1----	1----	1----
1----	2----	3----	4----	5----

7 vs. 5

1	2	3	4	5
1234567	1234567	1234567	1234567	1234567
1234512	3451234	5123451	2345123	4512345
1----	1----	1----	1----	1----
1----	2----	3----	4----	5----

8 vs. 5

1	2	3	4	5
12345678	12345678	12345678	12345678	12345678
12345123	45123451	23451234	51234512	34512345
1----	1----	1----	1----	1----
1----	2----	3----	4----	5----

9 vs. 5

1	2	3	4	5
123456789	123456789	123456789	123456789	123456789
123451234	512345123	451234512	345123451	234512345
1----	1----	1----	1----	1----
1----	2----	3----	4----	5----

4 vs. 6 (same as 2 vs. 3)

1	2	3	4	5	6
1234	1234	1234	1234	1234	1234
1234	5612	3456	1234	5612	3456
1---	--1-	----	1---	--1-	----
1---	--2-	----	3---	--4-	----

5 vs. 6

1	2	3	4	5	6
12345	12345	12345	12345	12345	12345
12345	61234	56123	45612	34561	23456
1----	-1---	--1--	---1-	----1	-----
1----	-2---	--3--	---4-	----5	-----

7 vs. 6

1	2	3	4	5	6
1234567	1234567	1234567	1234567	1234567	1234567
1234561	2345612	3456123	4561234	5612345	6123456
1-----1	-----1-	-----1--	-----1---	-----1----	-----1-----
1-----2	-----3-	-----4--	-----5---	-----6----	-----7-----

8 vs. 6 (same as 4 vs. 3)

9 vs. 6 (same as 3 vs. 2)

2 vs. 7

1	2	3	4	5	6	7
12	12	12	12	12	12	12
12	34	56	71	23	45	67
1-	--	--	-1	--	--	--
1-	--	--	-2	--	--	--

3 vs. 7

1	2	3	4	5	6	7
123	123	123	123	123	123	123
123	456	712	345	671	234	567
1--	---	-1-	---	--1	---	---
1--	---	-2-	---	--3	---	---

4 vs. 7

1	2	3	4	5	6	7
1234	1234	1234	1234	1234	1234	1234
1234	5671	2345	6712	3456	7123	4567
1----	---1-	----	--1-	----	-1--	----
1----	---2-	----	--3-	----	-4--	----

5 vs. 7

1	2	3	4	5	6	7
12345	12345	12345	12345	12345	12345	12345
12345	67123	45671	23456	71234	56712	34567
1-----	--1--	-----1	-----	-1---	----1-	-----
1-----	--2--	-----3	-----	-4---	----5-	-----

6 vs. 7

1	2	3	4	5	6	7
123456	123456	123456	123456	123456	123456	123456
123456	712345	671234	567123	456712	345671	234567
1-----	-1----	--1---	---1--	----1-	-----1	-----
1-----	-2----	--3---	---4--	----5-	-----6	-----

8 vs. 7

1	2	3	4	5	6	7
12345678	12345678	12345678	12345678	12345678	12345678	12345678
12345671	23456712	34567123	45671234	56712345	67123456	71234567
1-----1	-----1-	-----1--	----1---	---1----	--1-----	-1-----
1-----2	-----3-	-----4--	----5---	---6----	--7-----	-8-----

9 vs. 7

1	2	3	4	5	6	7
123456789	123456789	123456789	123456789	123456789	123456789	123456789
123456712	345671234	567123456	712345671	234567123	456712345	671234567
1-----1-	-----1---	---1-----	-1-----1	-----1--	----1----	--1-----
1-----2-	-----3---	---4-----	-5-----6	-----7--	----8----	--9-----

3 vs. 8

1	2	3	4	5	6	7	8
123	123	123	123	123	123	123	123
123	456	781	234	567	812	345	678
1--	---	--1	---	---	-1-	---	---
1--	---	--2	---	---	-3-	---	---

5 vs. 8

1	2	3	4	5	6	7	8
12345	12345	12345	12345	12345	12345	12345	12345
12345	67812	34567	81234	56781	23456	78123	45678
1----	---1-	-----	-1---	----1-	-----	--1--	-----
1----	---2-	-----	-3---	----4-	-----	--5--	-----

6 vs. 8 (same as 3 vs. 4)

7 vs. 8

1	2	3	4	5	6	7	8
1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567
1234567	8123456	7812345	6781234	5678123	4567812	3456781	2345678
1-----	-1-----	--1----	---1---	----1--	-----1-	-----1	-----
1-----	-2-----	--3----	---4---	----5--	-----6-	-----7	-----

9 vs. 8

1	2	3	4	5	6	7	8
123456789	123456789	123456789	123456789	123456789	123456789	123456789	123456789
123456781	234567812	345678123	456781234	567812345	678123456	781234567	812345678
1-----1	-----1-	-----1--	-----1---	-----1----	-----1-----	-----1-----	-----1-----
1-----2	-----3-	-----4--	-----5---	-----6----	-----7-----	-----8-----	-----9-----

2 vs. 9

1	2	3	4	5	6	7	8	9
12	12	12	12	12	12	12	12	12
12	34	56	78	91	23	45	67	89
1-	--	--	--	-1	--	--	--	--
1-	--	--	--	-2	--	--	--	--

4 vs. 9

1	2	3	4	5	6	7	8	9
1234	1234	1234	1234	1234	1234	1234	1234	1234
1234	5678	9123	4567	8912	3456	7891	2345	6789
1---	----	-1--	----	--1-	----	---1	----	----
1---	----	-2--	----	--3-	----	---4	----	----

5 vs. 9

1	2	3	4	5	6	7	8	9
12345	12345	12345	12345	12345	12345	12345	12345	12345
12345	67891	23456	78912	34567	89123	45678	91234	56789
1----	----1	-----	---1-	-----	--1--	-----	-1---	-----
1----	----2	-----	---3-	-----	--4--	-----	-5---	-----

6 vs. 9 (same as 2 vs. 3)

7 vs. 9

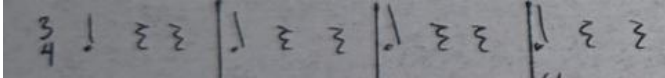
1	2	3	4	5	6	7	8	9
1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567	1234567
1234567	8912345	6789123	4567891	2345678	9123456	7891234	5678912	3456789
1-----	--1----	----1--	-----1	-----	-1-----	---1----	-----1-	-----
1-----	--2----	----3--	-----4	-----	-5-----	---6----	-----7-	-----

8 vs. 9

1	2	3	4	5	6	7	8	9
12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678
12345678	91234567	89123456	78912345	67891234	56789123	45678912	34567891	23456789
1-----	-1-----	--1-----	---1-----	----1----	-----1--	-----1-	-----1-	-----
1-----	-2-----	--3-----	---4-----	----5----	-----6--	-----7-	-----8-	-----

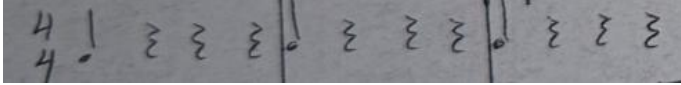
There is one last exercise that was given to me by my teacher, Hari Har Rao, which I would like to pass on to you:

Keeping the subsidiary beats constant (quarter notes), first count and clap four, then 3vs. 4; then count and clap three, and finally 4 vs. 3; and without stopping repeat the process.

clap 

1 count 1 -- 2 -- 3 -- 4 --

2 count 1 -- -- 2 -- -- 3 -- -- --

clap 

3 count 1 --- 2 --- 3 ---

4 count 1 -- 2 -- 3 -- 4 --

Keep the quarter notes (indicated by numbers and dashes) exactly constant!

If you are really enterprising, try the same thing with the other superimpositions!

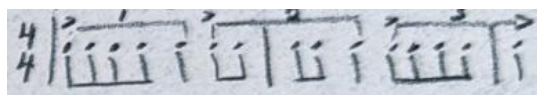
CHAPTER 9

TIHAIS

A TIHAI is one of the most important rhythmic devices of Indian music, and one which is seldom (if ever) discussed or mentioned.

A CHAKRADAR TIHAI is a figure which is played 3 times and arranged so that its last note comes out on SUM or ONE.

In its simplest form it could be this familiar figure, played at one time or another by most jazz drummers:



However, in Indian music a TIHAI may become very long and involved.

In order to perform a TIHAI correctly you must be able to play any rhythmic figure starting anywhere within a given cycle. This is one of the things the previous exercises should have prepared you for by now.

Let us begin with some TIHAIS in TEEN TAL:

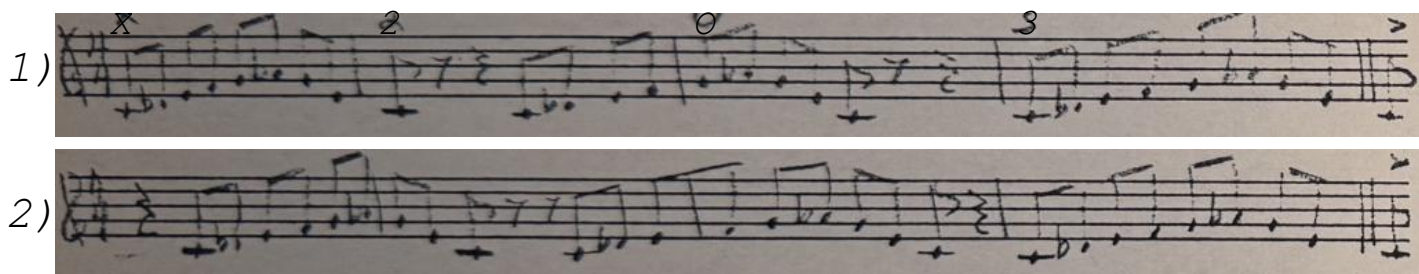
	X	2	3	3	
1)	1- 2- 3- 4-	5- -- 1- 2-	3- 4- 5- --	1- 2- 3- 4-	5
2)	-- 1- 2- 3-	4- 5- -1 -2	-3 -4 -5 --	1- 2- 3- 4-	5
3)	-- -- 1- 2-	3- 4- 5- 1-	2- 3- 4- 5-	1- 2- 3- 4-	5
4)	1- 2- 3- 4- 5- 1-	2- 3- 4- 5- 1-	1- 2- 3- 4-	1- 2- 3- 4-	5
5)	1- 2- 3- 4-	56 71 -2 -3	-4 -5 67 1-	2- 3- 4- 56	7
6)	1- 2- 3- 4-	12 31 -2 -3	-4 -1 23 1-	2- 3- 4- 12	3
7)	12 31 -2 -3	4- -1 23 1-	2- 3- 4- 12	31 -2 -3 -4	-
8)	12 34 1- -2	-- 31 23 41	-- 2- -3 12	34 1- -2 --	3

Make up a melodic figure (drummers: rhythmic figure) for the first part of the TIHAI, and then sing it exactly the same the next 2 times, beginning on the part of the beat indicated.

Keep the TALA with your hand as you sing.

For example:

TEEN TAL



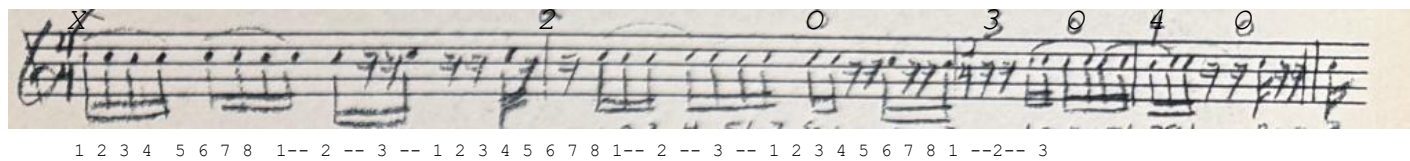
Note that you may use double and quadruple figures within the TIHAI if you so desire.

When this is absolutely secure (but not before) play the phrase keeping time with your foot. Notice that once you have "felt" the TIHAI against the beat by singing and clapping, the playing is relatively simple.

Here are the rhythms of 3 TIHAIS written out in Western Notation:

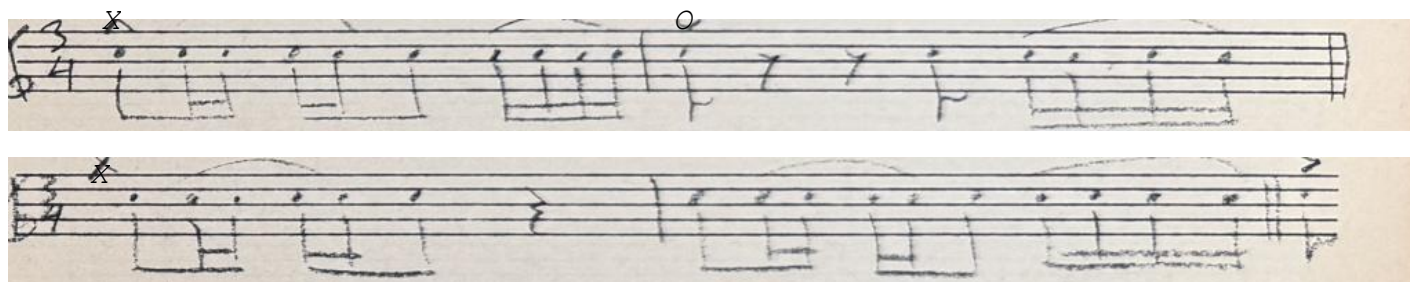
EKTAL

a)



DADRA

b)



TEEN TAL

c)



is the rhythm of a TIHAI by Hari Har Rao in a
different 13 beat TALA. It is taken

from an article in the April 1965 issue
of Jazz magazine titled "An Introduction
to Indian Music for the Jazz Musician"

by myself and Hari Har Rao:

JAITAL

phrase mark

(X) (2)

(O) (3)

(X) (2)

(O) (3)

(X) (2)

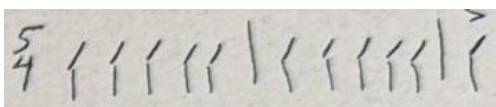
(O) (2)

(X) (2)

(O) (2)

Now figure out a TIHAI for each TALA yourself.

One way of doing this is to count the total number of beats you want the TIHAI spread over--being sure to add in the last beat.

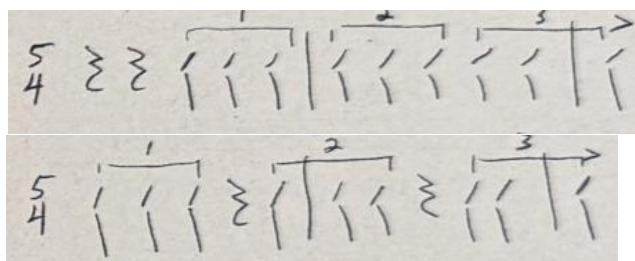
example.  = 11 BEATS

Then divide this number by 3 to determine approximately how long each section will be.

$$3 \overline{)11} \begin{array}{r} 3 \\ 2 \end{array} = 3 \text{ beats each with 2 left over}$$

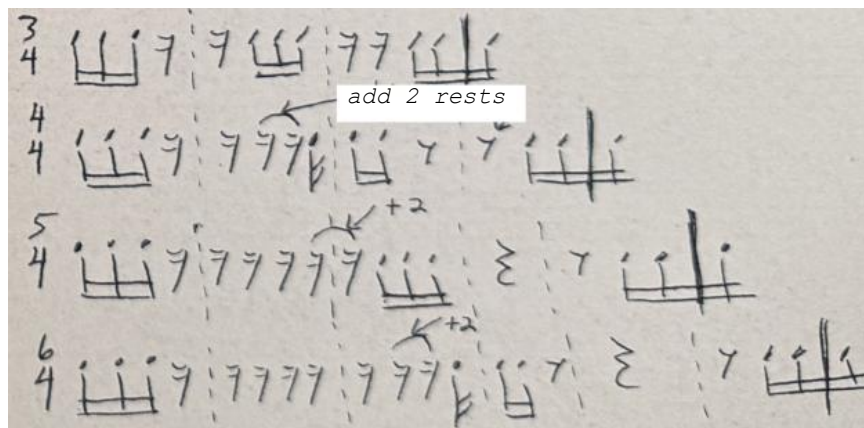
Now decide what phrase you want that is about this long (it need not take up the whole space).

The repetitions of the TIHAI must all be equally spaced, so add up the number of rests and either put them at the beginning of the TIHAI and play the 3 repetitions without pause, or disperse them equally between the repetitions.



HOW TO STRETCH A TIHAI

It is possible to take one TIHAI and stretch it out to cover a longer beat cycle by adding 2 rests for each beat added:



A TIHAI may be as long and as involved as one wishes, and may cover more than once cycle of a TALA (as we have seen). Many times there will even be TIHAIS with TIHAIS. That is, shorter TIHAIS in each one of the repetitions of the long TIHAI (see example C).

In Indian music you may sometimes have one performer playing one TIHAI, and another musician doing a completely different TIHAI at the same time--with everything getting very involved and complex--a listener may fear that they have both lost the beat--when suddenly they will both come out on SUM or ONE with a great release of tension.

In fact a sort of competitive element comes into play in Indian music. One musician will "duel" with the other, trying to confuse him by playing all manner of cross rhythms and TIHAIS--only at the last split second coming out exactly on SUM. Once you understand what is going on, it can be immensely exciting and exhilarating.

CHAPTER 10

COMBINING TALAS

An Indian musician will occasionally combine one TALA with another by superimposing a new TALA over the basic one being played.

For example, the group may be playing in EKTAL, and suddenly the drummer will play TEEN TAL fitted into exactly the same same period of time!

1	2	3	4	5	6	7	8	9	10	11	12	= EKTAL (see p.64)			
Dhin	Dhin	DaGe	trkt	tin	Na	Ka	tin	DaGe	trkt	Dhin	Na				
I	I	I	I	I	I	I	I	I	I	I	I	= TEEN TAL			
Dha	Dn	Dn	Dha	Dha	Dn	Dn	Dha	Dha	tin	tin	Ta				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

This is 16 vs. 12, which is really 4 vs. 3 on a larger scale.

The same thing could happen in reverse, with the group playing TEEN TAL and the drummer going into EKTAL.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	=TEEN TAL
Dha	Dn	Dn	Dha	Dha	Dn	Dn	Dha	Dha	tin	tin	Ta	Ta	Dn	Dn	Dha	
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	=EKTAL
Dhin	Dhin	DaGe	trkt	tin	Na	Ka	tin	DaGe	trkt	Dhin	Na					
1	2	3	4	5	6	7	8	9	10	11	12					

This is 12 vs. 16, or 3 vs. 4 on a larger scale.

This is 12 vs. 16, or 3 vs. 4 on a larger scale.

The momentary effect is that one member of the group is suddenly playing faster or slower than the rest. However, in India it is all done very precisely so that the original TALA , its structure and speed are never forgotten.

By using the superimposition charts of Chapter 8, any TALA may be combined with any other.

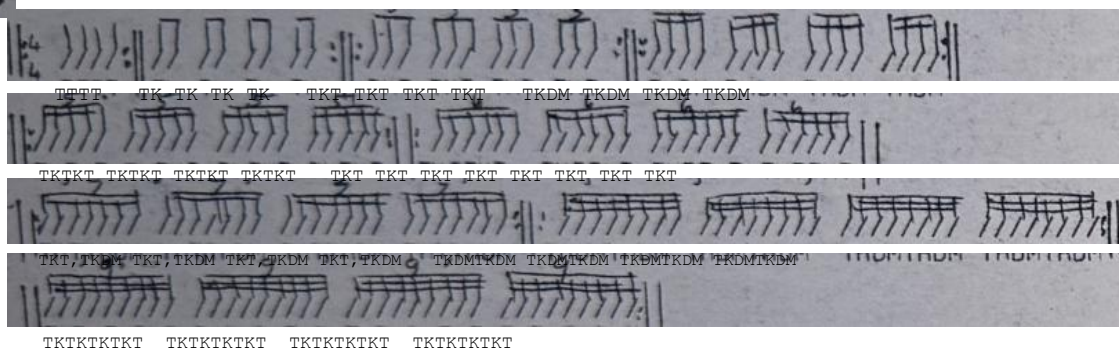
The implications of this technique for jazz musicians should be obvious. For example, in a steady tempo a drummer could suddenly appear to have modulated the tempo slower or faster and into an entirely different meter until the rest of the group continues in the original time, and then at will, he could signal a switch into the original tempo with tremendous effect! And the beauty of it is--he would never get lost, but all the time know exactly where he is within whatever structure the group is playing.

CHAPTER 11

SWITCHING SUBDIVISIONS

A very good practice idea is to test yourself against a metronome or recording and switch subdivisions of the beat.

= constant



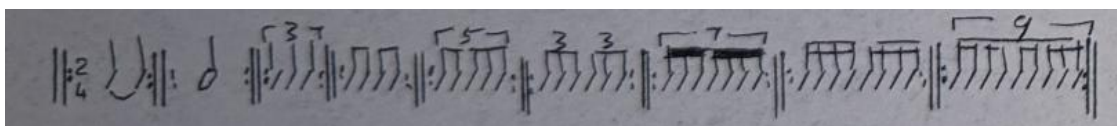
First start out in quarter notes, then shift immediately to eighth notes, then eighth note triplets, and so on up to 9.

Obviously the 9 subdivision can only be executed at a relatively slow tempo, so as you increase the speed of the exercise (by setting the metronome higher), leave it out, and as the tempo gets even faster drop the 8, then 7, etc.

Next practice skipping at random from 3's to 7's to 4's to 5's, and so on.

The trick is to make sure that each subdivision is completely accurate and even the instant you change.

You should next try the same thing, spreading it over 2 beats instead of one:

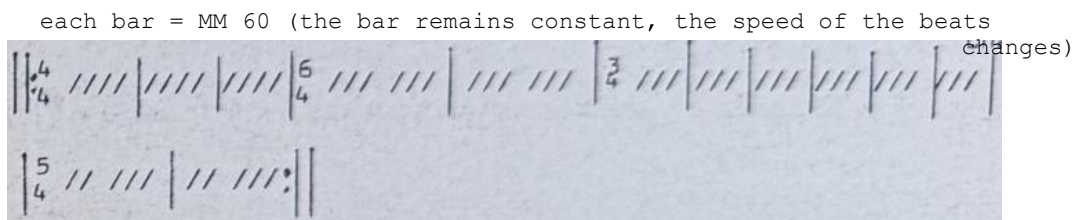


Then do it over 3,4,5,6,7,8,and 9 beats (by changing the time signature to 3/4, 5/4 etc., and doing 2,3,4,5,6,7,8,and 9 beats in each bar.

In these cases refer to the superimposition charts of Chapter 8 for accuracy.

To be able to do this accurately is absolutely essential for the modern classical musician, and there are interesting possibilities for the jazz of the future.

For example you can do this type of thing:

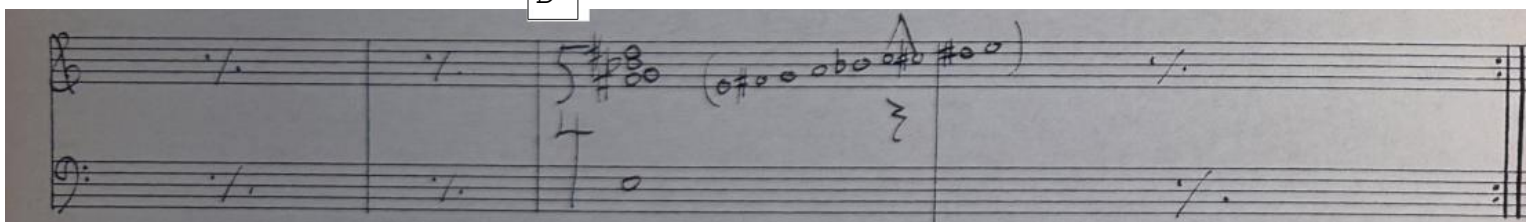
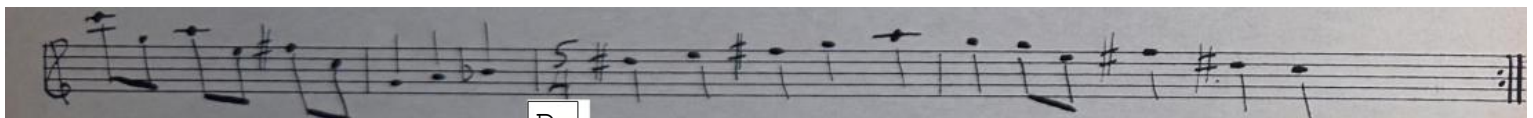
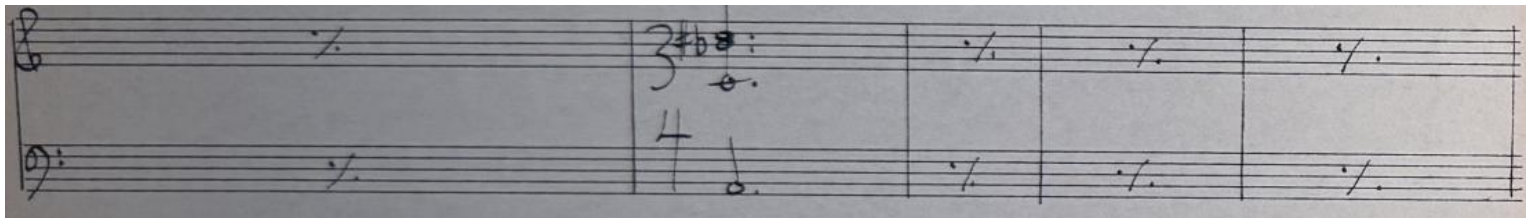
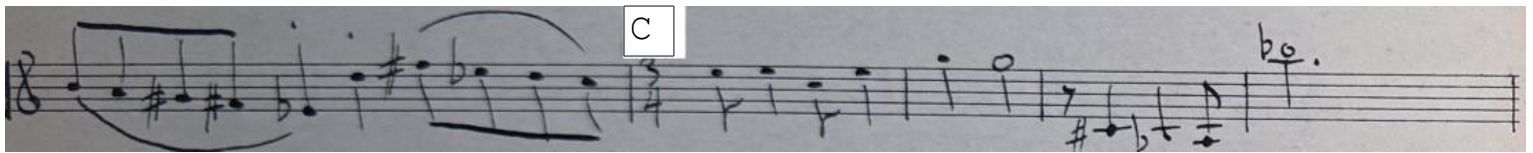
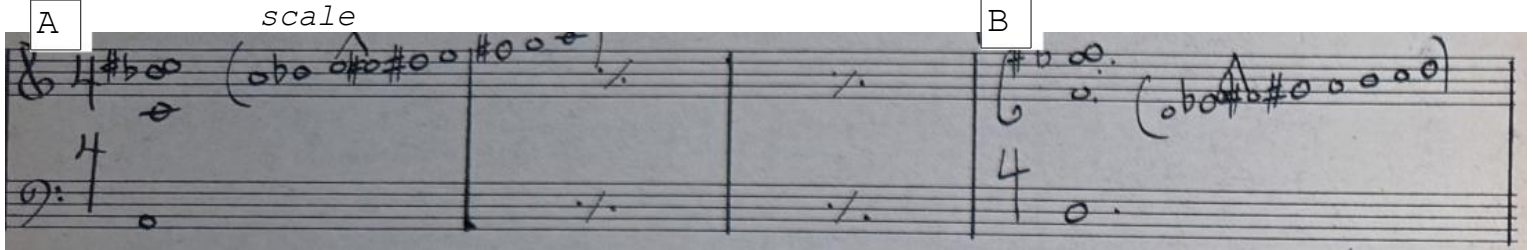
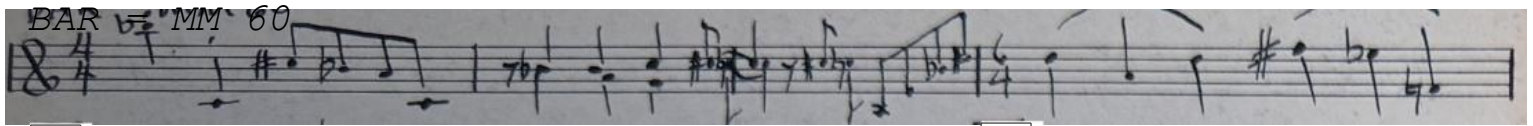


I used this scheme recently in a piece called "S.S." which is reprinted here. Notice that rhythmically it is the above pattern, and harmonically it is a combination of a RAGA and the blues form.

Even if the piece you are playing doesn't change subdivisions, you can get interesting effects by changing subdivisions on your own against the regular pulse of the rest of the group.

S. S.

Don Ellis 102



BLOWING: 1/ STAY ON A then
cue B,C,D

2/ As is

3/ Jump around

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CHAPTER 12

ADVANCED RHYTHMIC ROWS

In the last few years (even before studying Indian music) I have been experimenting with various rhythmic meters that were longer than the usual $3/4$, $7/4$, $9/4$.

One particular pattern which has proven to be especially nice to improvise on is $19/4$. The subdivision I like best is:

3 3 2 2 2 1 2 2 2

However, it is possible to change the pattern within the 19 beats:

2 2 2 3 3 1 3 3

or, 5 5 3 2 2 2 (or any combination that seems pleasing)

One of the things I would like to see happen is a revitalization of our whole culture rhythmically. As the Indians, Africans, Turks and Greeks have shown, there is no reason why our songs and dances for the "masses" have to be so stodgy rhythmically. It is perfectly possible for the average person to dance and sing in $5/4$, $7/4$, $9/4$. It happens every day all over the world. It is only we in our western culture who are so backward in this area.

To this end (and to see if it was possible) I wrote a "Rock and Roll" song in $19/4$ (which I sometimes also use instrumentally as a "jazz tune"). The subdivisions change continually within the 19, but it is remarkably easy to feel, and even to dance to!

SWEET NINETEEN

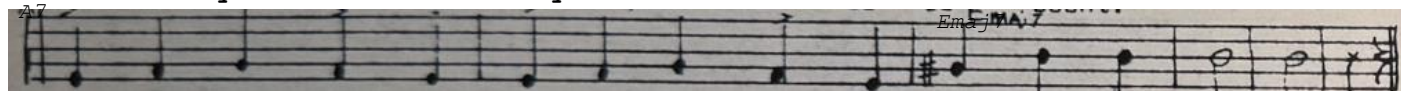
FAST



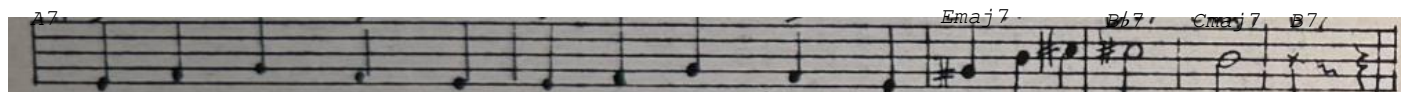
1. Lets Go and see this new dance we heard a- bout.
2. You can not dance it if you have got the gout.



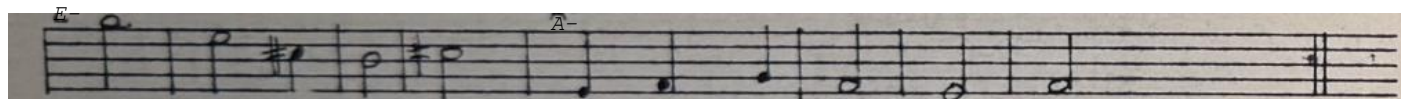
They say its fun and some-thing quite new to do.
But if. you want to all you need do is count.



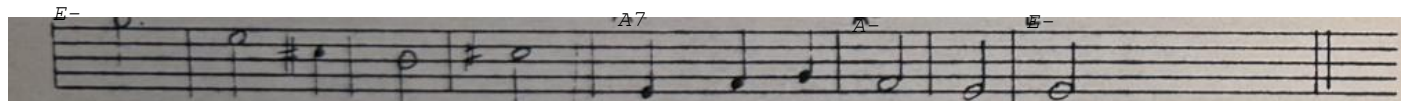
One, two, three, four, five; one, two, three, four, five; one, two, three, ONE MORE TIME!



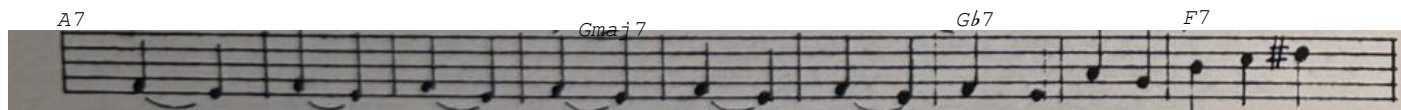
One, two, three, four, five; one, two, three, four, five; 1, 2, 3, That's it. NOW!



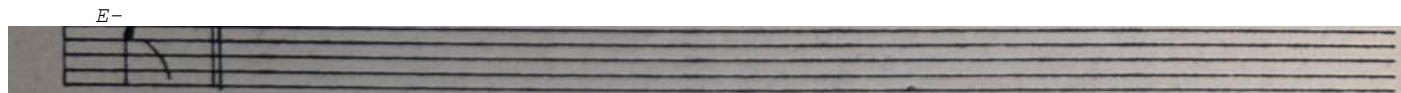
Let's go and see this new dance we heard a- bout.



It's nine- teen beats long, Come on and join the fun.



Come on, come on, come on, come on, come on, come on, you can do what-ever you



want!

Second Chorus (out):

Just move your feet in time to the music's, beat,
And let your body follow your own 2 feet.
Your partner can do whatever looks real neat,
Switch partners often. Now you are all elite.

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SUPPLEMENTARY EXAMPLES OF COMPOSITIONS

These examples are included to give the reader a start in thinking along the lines suggested by the rhythmic ideas in this book.

NEW NINE is a composition in 9/4 (2+2+2+3), and is meant to be played at a rather brisk tempo.

ORIENTATION was originally written for a big band, and to make it easier for the musicians to sight read, the 7/8 + 9/8 rhythm was written out in 4/4. However, I do not recommend this procedure except in emergencies, as it destroys some of the true 7/8 + 9/8 feeling. This example is a reduction of the main themes of the big band arrangement.

3:5:7 FOR STRING QUARTET, PERCUSSION AND METRONOME is the first and last page of a "classical" work for this medium. Notice the TIHAIS in the various instruments in the final seven bars.

Note: All of the musical examples in this book are somewhat simple rhythmically compared to the tremendous complexities that occur during a performance of Indian music. However, I have found it necessary to simplify the rhythms until musicians become accustomed to thinking in new and more complex ways rhythmically. In the next few years it should be possible to become much more sophisticated.

The ice has now been broken.

NEW NINE

A (vibes) **DRUMS**

fff Gb7 G7 E7 Db7 C7 FΔ7

B **TABLA**

p

C **VAMP — TABLA ONLY**

D **AD LIB ON MELODY**

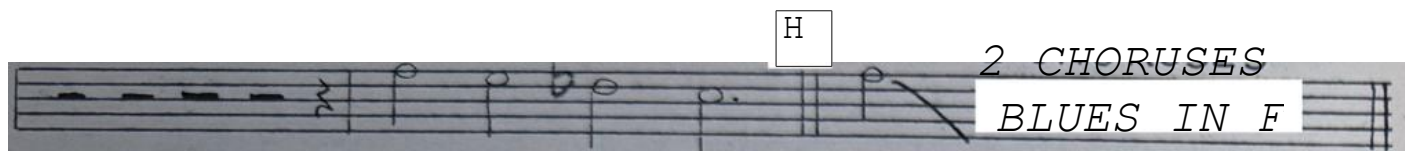
VAMP CONTINUE

E **VIBES CUE W. TPT**

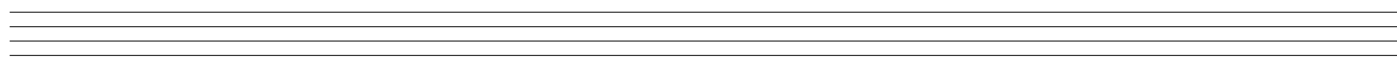
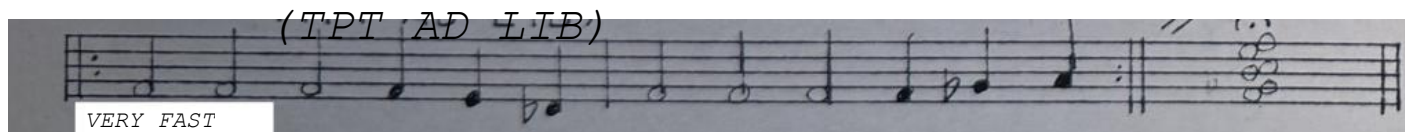
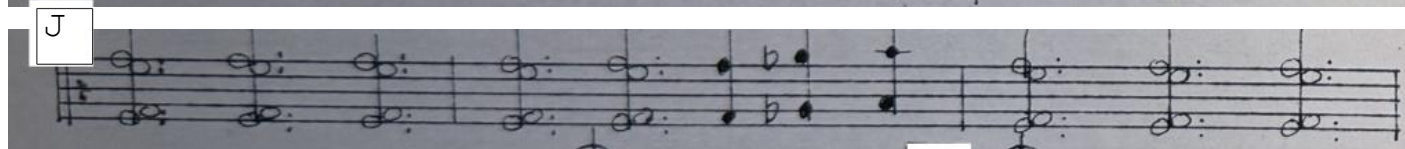
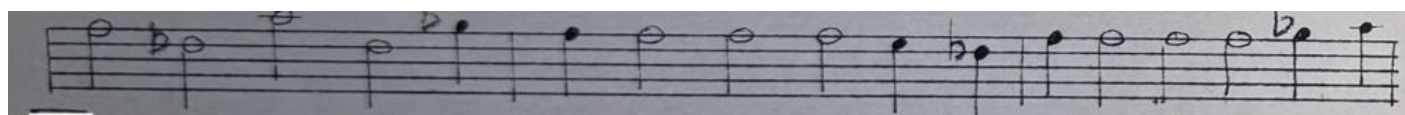
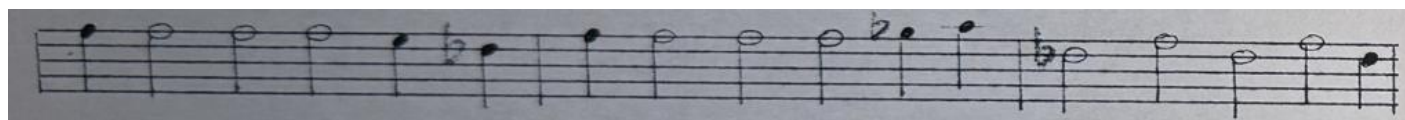
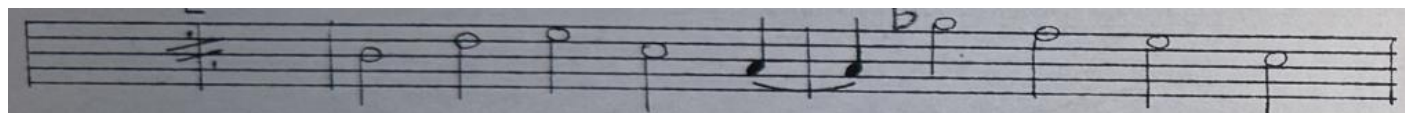
F Eb7

G **DRUMS FILL** **(UNIS)**

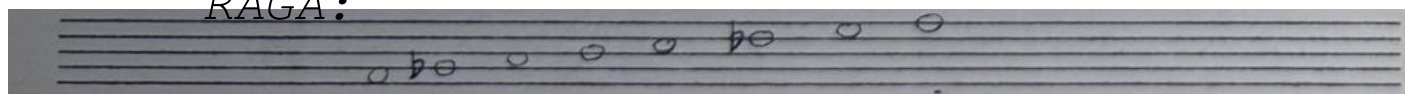
NEW NINE P.2



BLOWING = VAMP + E + 2 CHOR BLUES



RAGA:



ORIENTATION

109

Don Ellis

(VAMP) $(\frac{7}{8} + \frac{9}{8})$ QUASI-LATIN Drums (VAMP) PIANO + BASS

CYM
S.D.
H.H.
B.D.

HORNS- AD LIB UNISON ON MODE

(VAMPS CONTINUE)

SOLO

B.G.'s A B C D

SECONDARY VAMP for PIANO + BASS

ORIENTATION - 2.

Evs.

AD LIB

ONE AT A TIME

FREE AD LIB

ALL 8th NOTES

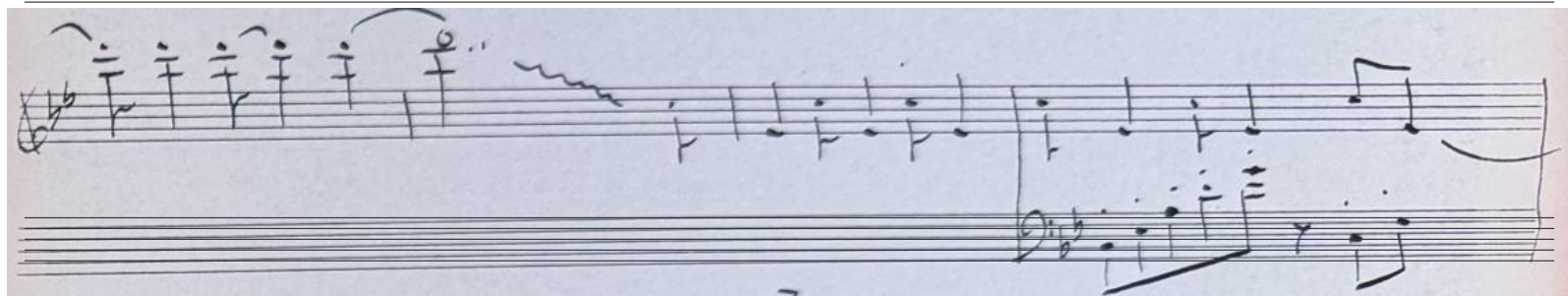
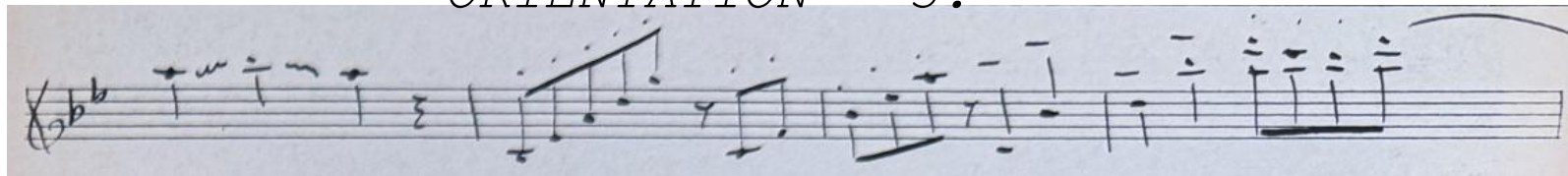
SOLO

D.S. al

DRUMS

DRUMS

ORIENTATION - 3.



Handwritten musical notation on a single staff, featuring a treble clef, a key signature of two flats (B-flat and E-flat), and a 2/4 time signature. The notation includes a series of eighth and sixteenth notes, some beamed together, and a final measure with a whole note chord. A small label "(A)" is visible in the first measure.

(JAN 65)

3:5:7 for String Quartet, Percussion, And Metronome

MM*=40 (=one bar)

TURN ON METRONOME

QUASI GLISS

QUASI GLISS

QUASI GLISS

(COWBELLS, TOM TOMS - Tuned if possible)
CYM x

S.D. o
B.D. ⊕

25:24 7:6 7:5 3:2 5:3 9:5

STRINGS NOTE: This is the "KEY" SIGNATURE

25:24 7:6 6:5 7:5 3:2 5:3 9:5

(APP 70.5¢) (mi 3rd -33¢) (mi 3rd +16¢) (aug 4 -17.5¢) (ma 6 -16¢) (mi 7 +18¢)

slow "agonizing" slide

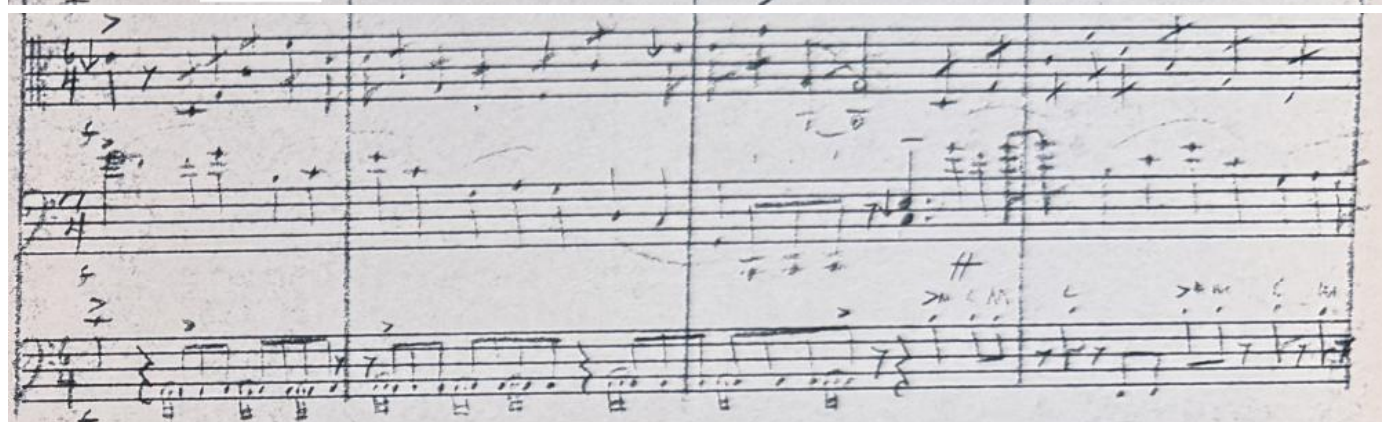
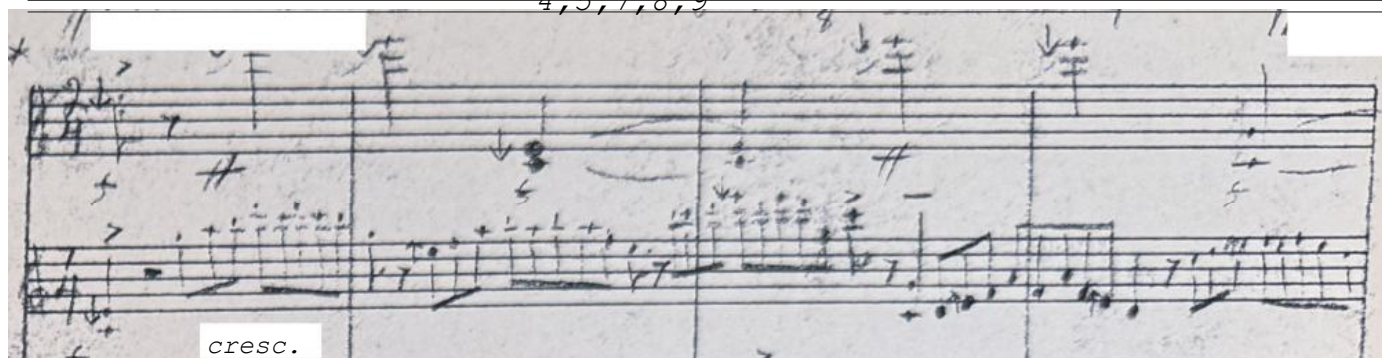
mp p

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*Metronome should be audible while playing.
Amplify if necessary

fortissimo

4,5,7,8,9



cresc.

cresc.

cresc.

Shut off
metronome
VERY QUIETLY

(before 1st
ticks of
Moue FAST)

STRINGS: IN ADDITION
TO ALL NOTES WRITTEN
PLAY AS MANY C'S + G'S (any octave) as possible

(continue open
strings, etc.)
There is no end.)

