GAME MUSIC COMPOSER

REVIEW TEMPO, METER, HARMONICS

Creative Track Emphasis

Junior Dev League

DAY:THREE

Background <=>Mechanics
Adaptations
Synthesis

ONE DAY

GAME MUSIC COMPOSER

REVIEW 10-20 MINUTES
CONCEPTS| FORM AND STRUCTURE 10-15 MINUTES
DEVELOPING SKILLS PRACTICE 50 MINUTES
SHORT BREAK 10 MINUTES
MEETING WITH DEVELOPER 15 MINUTES @11:00 AM
PROJECT PLANNING MEETING WITH INSTRUCTOR 10-15 MINUTES
PRACTICE EXERCISE IN SKILLS WITH SLIGHT VARIATIONS 30 MINUTES
REVIEW CONCEPTS | HOMEWORK 10-20 MINUTES @11:30 AM

Github

https://github.com/junior-devleague/GameProductionProgram/tree/master/GameMusicComposition/Week3

http://ciocan.github.io/angular-wheel-rhythm/

REVIEW

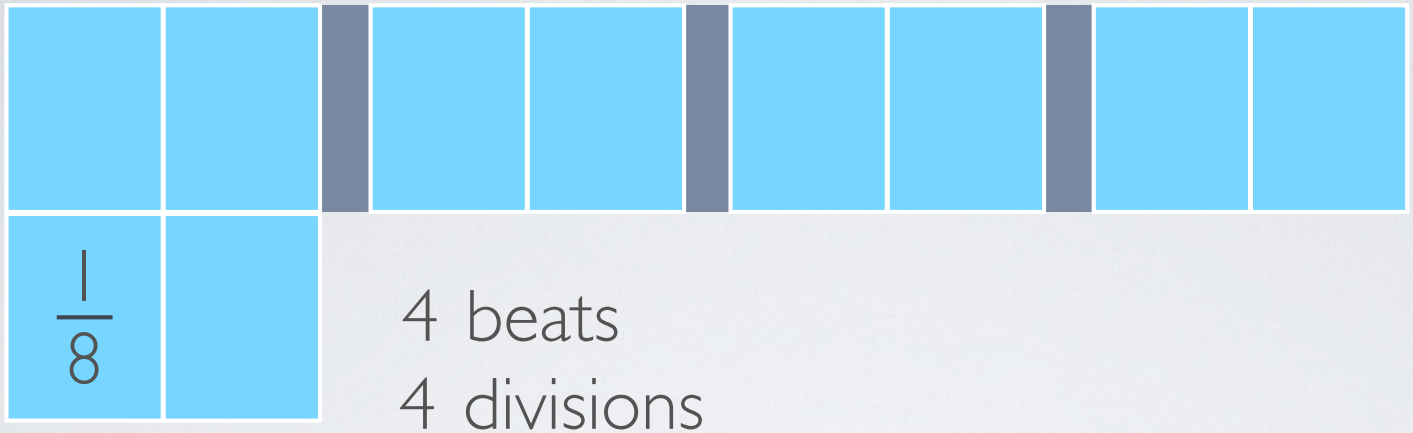
IBAR

1 BAR

4 divisions

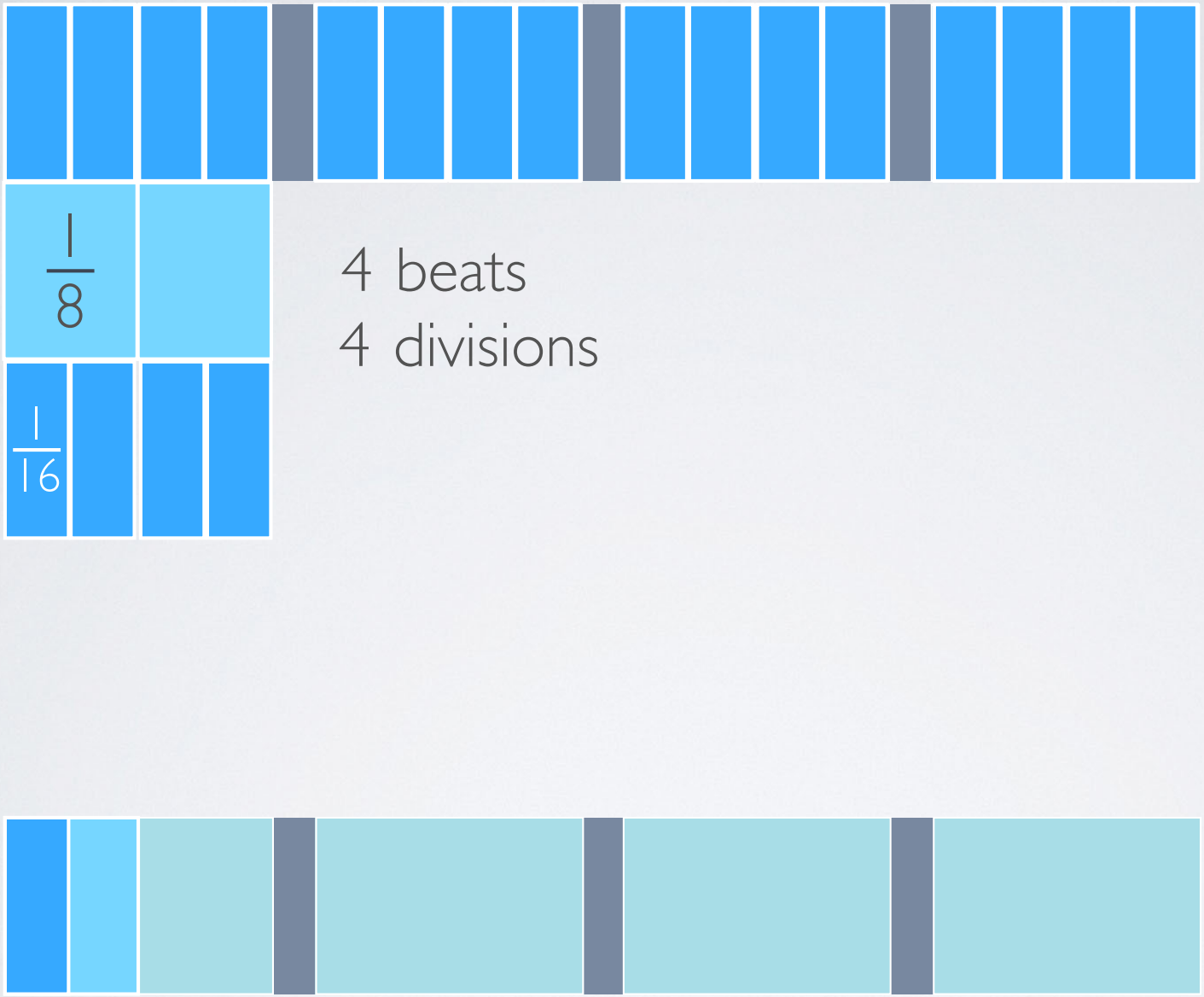
1 BAR

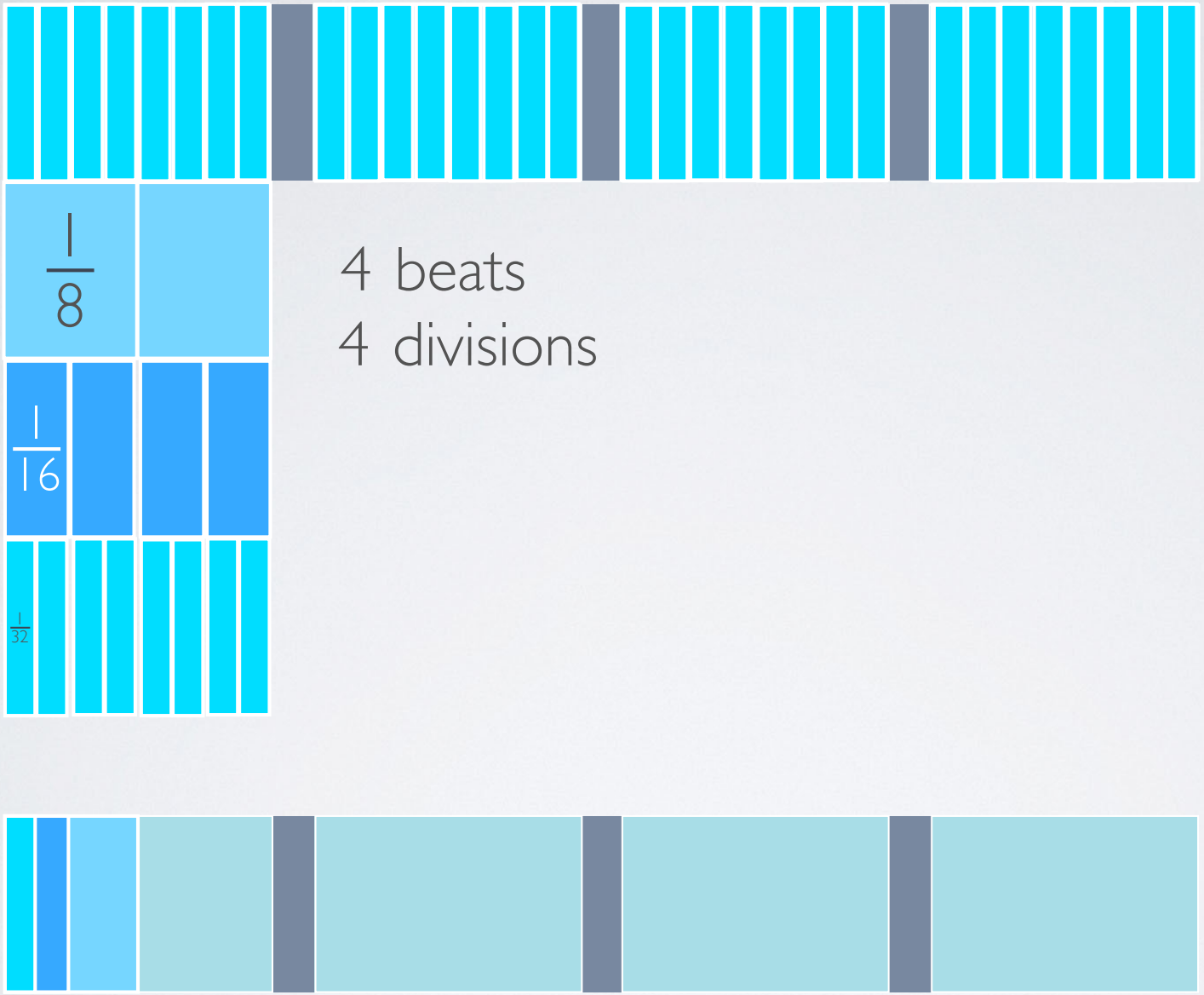
4 beats
4 divisions



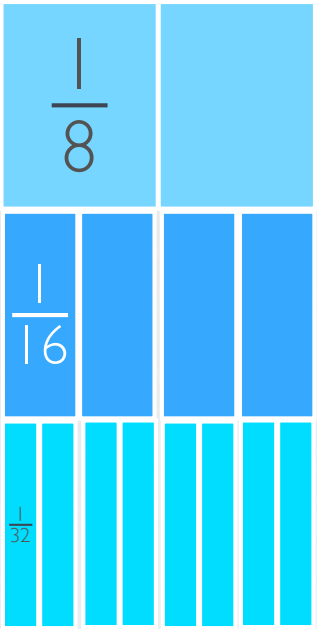
1 BAR

4 beats
4 divisions


1 BAR
1/8
1/16
4 beats
4 divisions


1 BAR
1/8
1/16
1/32
4 beats
4 divisions

1 BAR



4 beats
4 divisions

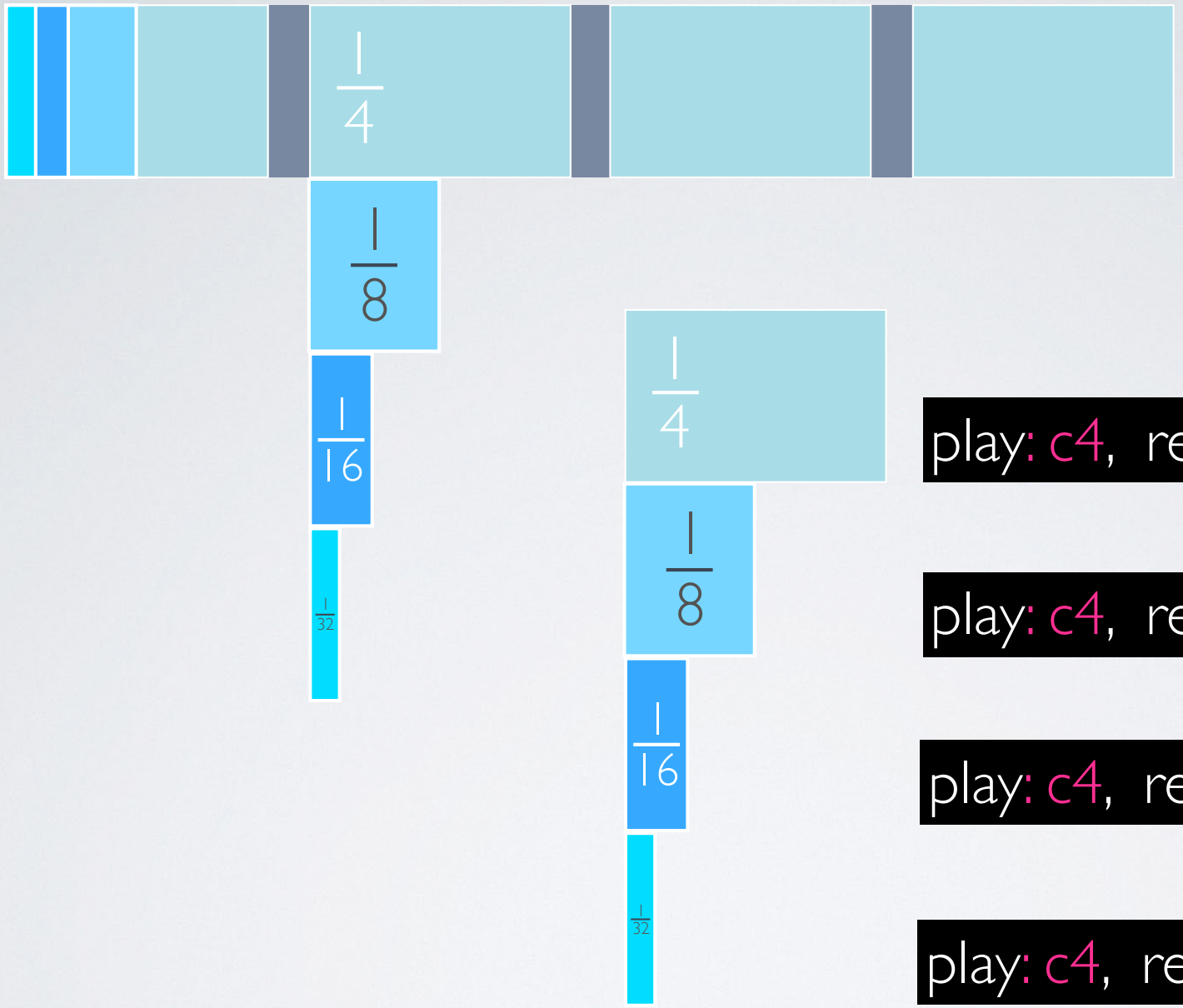
Tempo bpm : heart rate
120 beats : 120 quarter notes per minute

$$\frac{120 \text{ beats}}{60 \text{ seconds}} = \frac{2 \text{ beats}}{1 \text{ seconds}}$$

2 beats per second

1 beats per 0.5 second

1 qtr. note per 0.5second



2 beats per second

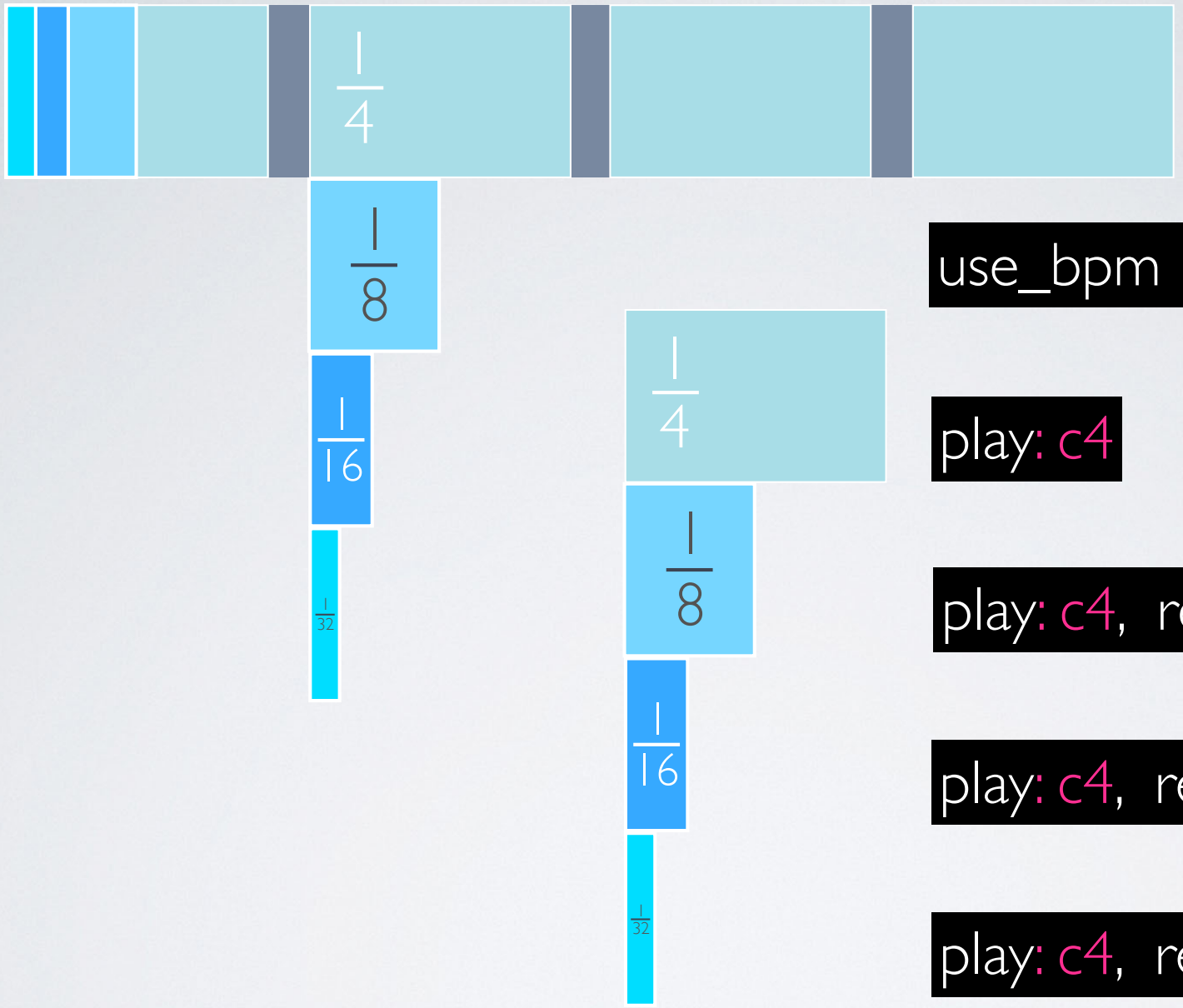
1 BAR : MEASURE

play: c4, release: 0.5

play: c4, release: 0.25

play: c4, release: 0.125

play: c4, release: 0.0625



2 beats per second

1 BAR : MEASURE

```
use_bpm 120
```

```
play: c4
```

```
play: c4,  release: 0.5
```

```
play: c4,  release: 0.25
```

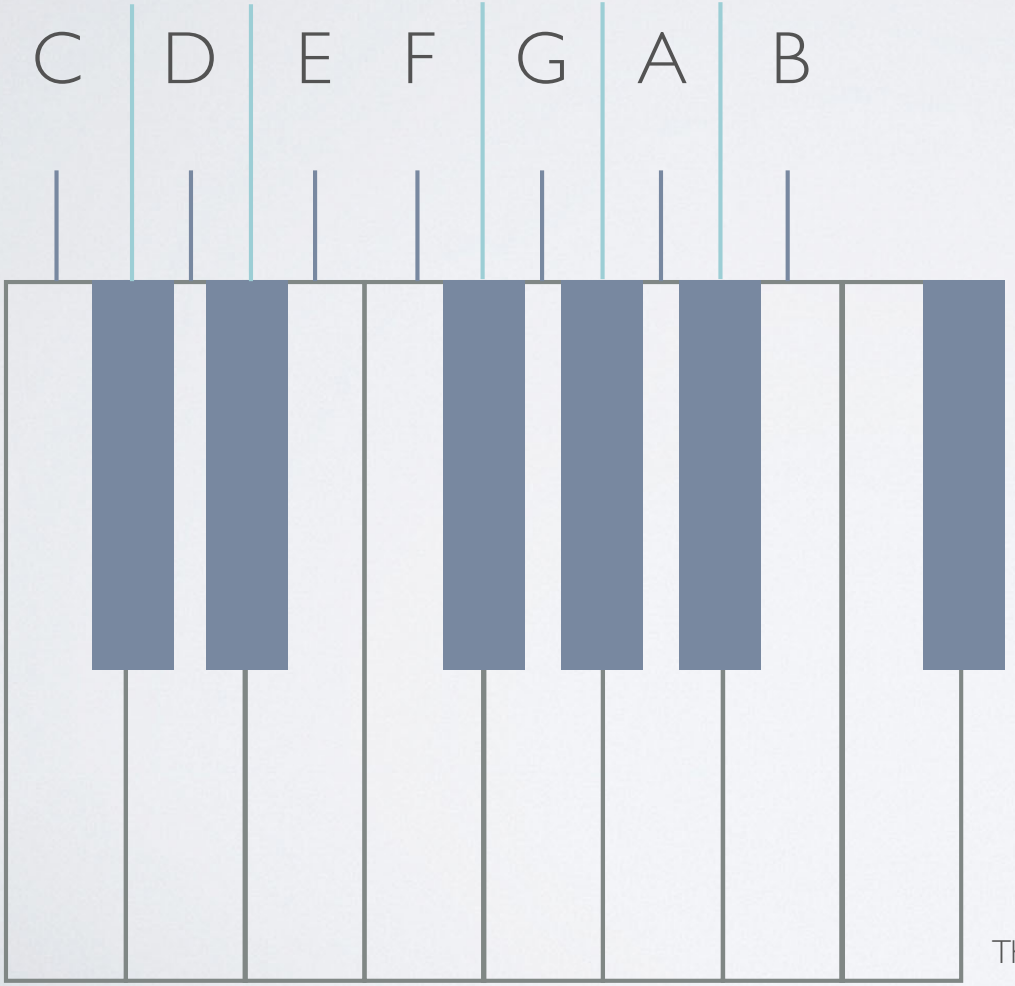
```
play: c4,  release: 0.125
```

MIDI no.

Octave	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
8	120	121	122	123	124	125	126	127				
7	108	109	110	111	112	113	114	115	116	117	118	119
6	96	97	98	99	100	101	102	103	104	105	106	107
5	84	85	86	87	88	89	90	91	92	93	94	95
4	72	73	74	75	76	77	78	79	80	81	82	83
3	60	61	62	63	64	65	66	67	68	69	70	71
2	48	49	50	51	52	53	54	55	56	57	58	59
1	36	37	38	39	40	41	42	43	44	45	46	47
0	24	25	26	27	28	29	30	31	32	33	34	35
-1	12	13	14	15	16	17	18	19	20	21	22	23
-2	0	1	2	3	4	5	6	7	8	9	10	11

The numbers refer to note at different octave range and pitch

12 pitches



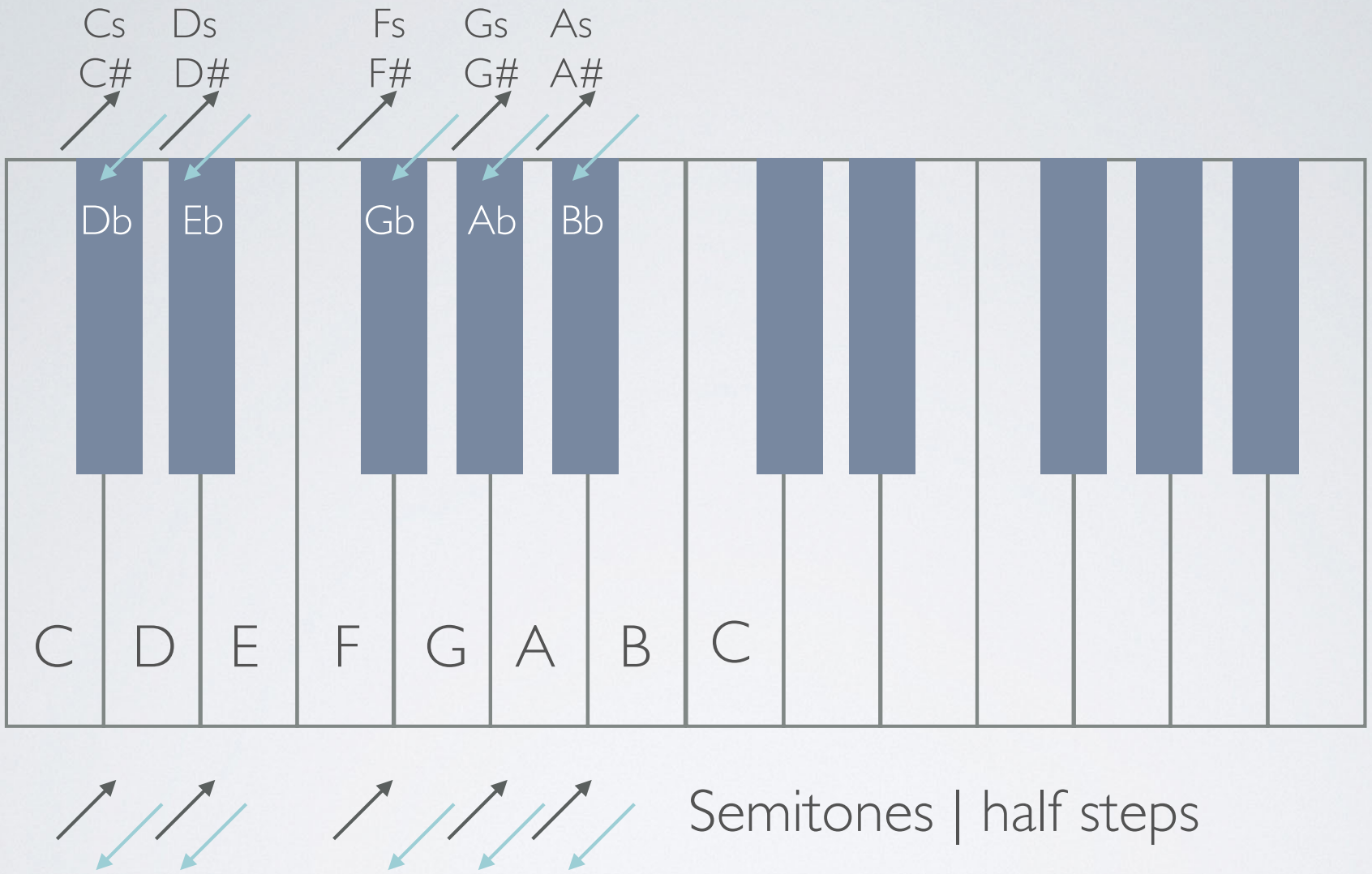
Basic MIDI Chart

These are the numbers translated in Sonic PI when you type pitches

HARMONY

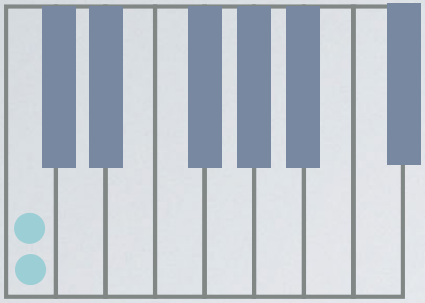
AN INTERVAL IS…

- An interval is the difference of (at minimal) two pitches.

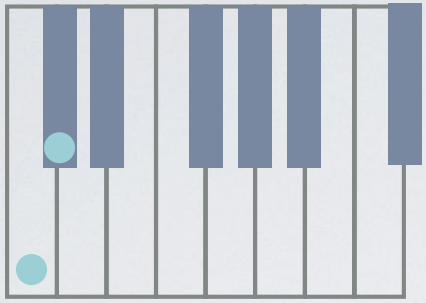


Semitones | half steps

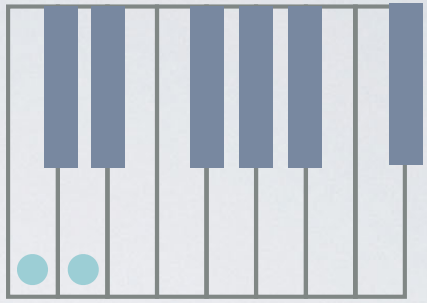
Identify a whole step



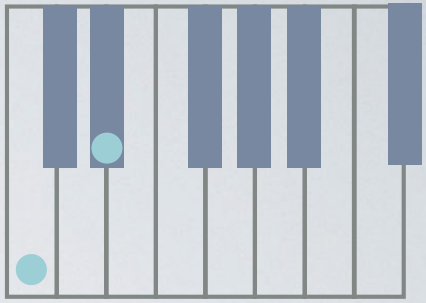
prime/unison



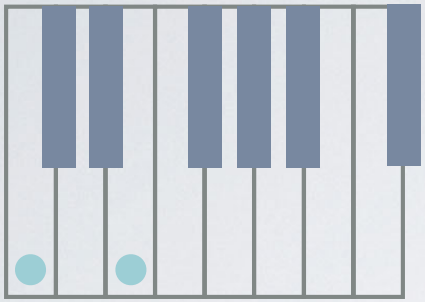
minor second



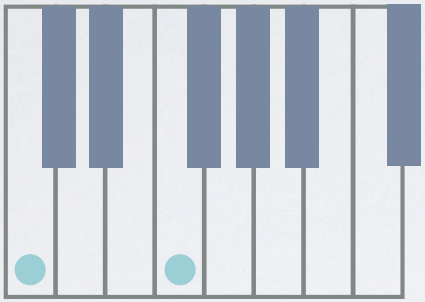
major second



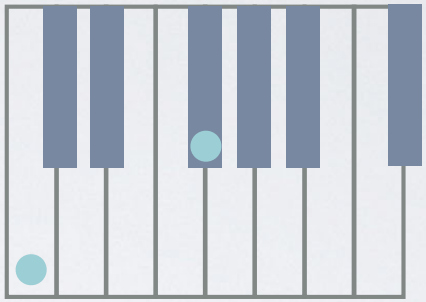
minor third



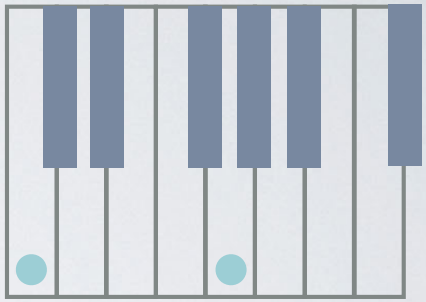
major third



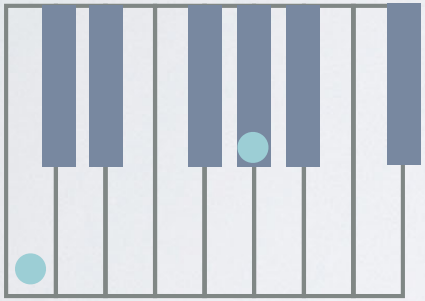
perfect fourth



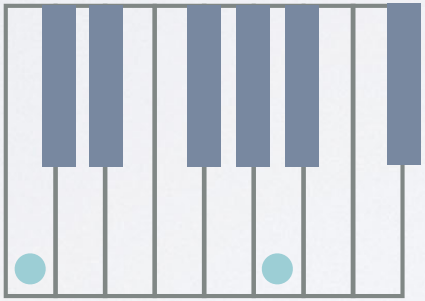
augmented fourth



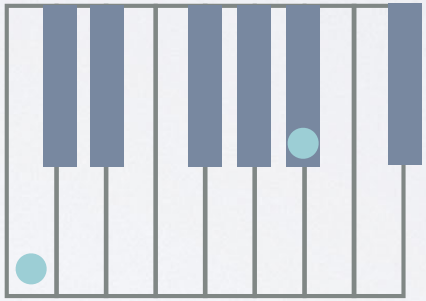
perfect fifth



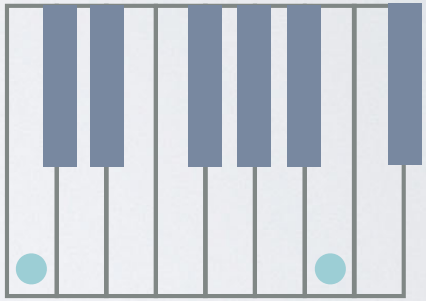
minor sixth



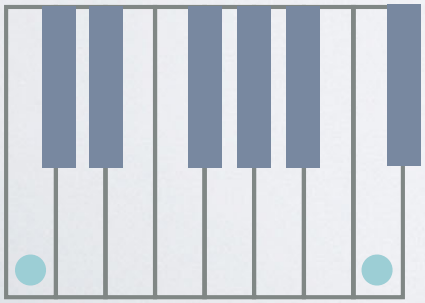
major sixth



minor seventh



major seventh



octave

13 interval harmonies in the octave via C note

Exercise| Translate this to sequence steps

http://onlinesequencer.net/

Exercise | Sequence|Code in SonicPI

1. Unison
2. Octave
3. Perfect fifth
4. Perfect fourth
5. Major third
6. Minor sixth
7. Minor third
8. Major sixth

Perfect to imperfect consonance

1. Major second
2. Minor seventh

mild dissonance

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3. Minor second
4. Major Seventh
5. Augmented fourth

severe dissonance

Exercise | Sequence|Code in SonicPI

1. Prime or unison
2. Octave
3. Perfect fifth
4. Perfect fourth
5. Major third
6. Minor sixth
7. Minor third
8. Major sixth
9. Major second
10. Minor seventh
11. Minor second
12. Major seventh
13. Augmented fourth/diminished fifth

Graduated spectrum of consonant to dissonant intervals