

# GAME MUSIC COMPOSER

Focus on Harmony and Sonic-PI play



# ONE DAY

GAME MUSIC COMPOSER

GAME MUSIC BACKGROUND 10-20 MINUTES

SHORT BREAK 10 MINUTES

CONCEPTS | FORM AND STRUCTURE 10-15 MINUTES

DEVELOPING SKILLS PRACTICE 50 MINUTES

SHORT BREAK 10 MINUTES

MEETING WITH DEVELOPER 15 MINUTES

PROJECT PLANNING MEETING WITH INSTRUCTOR 10-15 MINUTES

PRACTICE EXERCISE IN SKILLS WITH SLIGHT VARIATIONS 30  
MINUTES

REVIEW CONCEPTS | HOMEWORK 10-20 MINUTES

# Get Comfortable with Github

Github setup!

<https://github.com/junior-devleague/GameProductionProgram>

Brackets - Code Editor

iTerm3 - Terminal

Not Ready for Game Development until Sonic-PI mechanics are down

Tempo, Rhythm, Notes, Chords and Melody in units and forms

Pick out patterns from your favourites game music



Upload your 5 songs last week in Week1 Folder

Get connected with everybody in your group and your dev partner

Pick another 5 songs this week and upload it in Week2 Folder



# Basic MIDI Chart

The numbers refer to note at different octave range and pitch

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

12 pitches

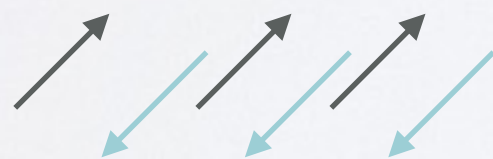
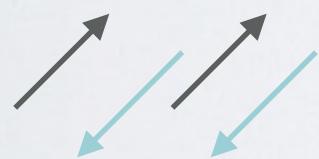
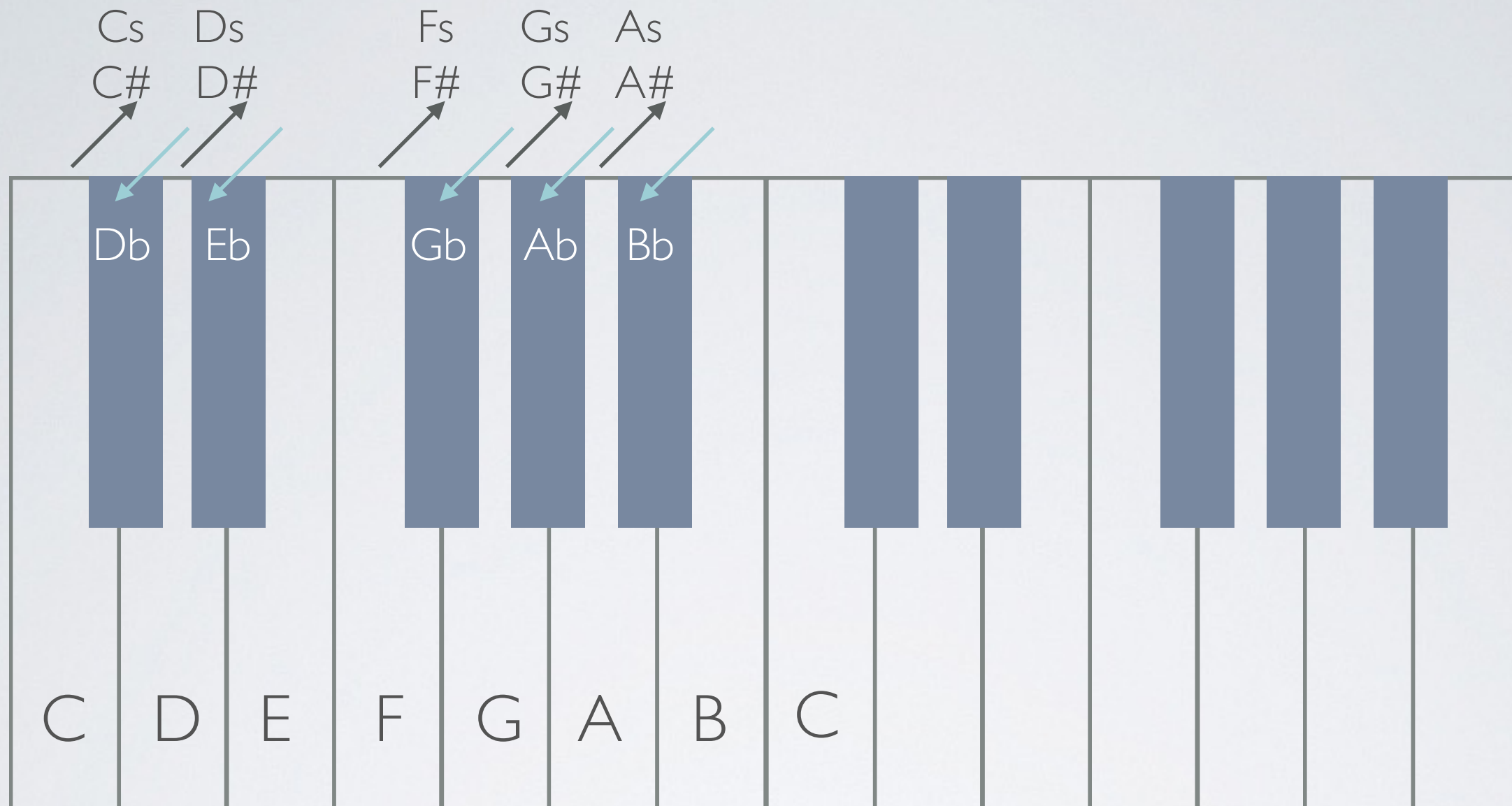
These are the numbers translated in Sonic PI when you type pitches

HARMONY

# WHAT IS AN INTERVAL?

- The differences in a minimum of two pitches.



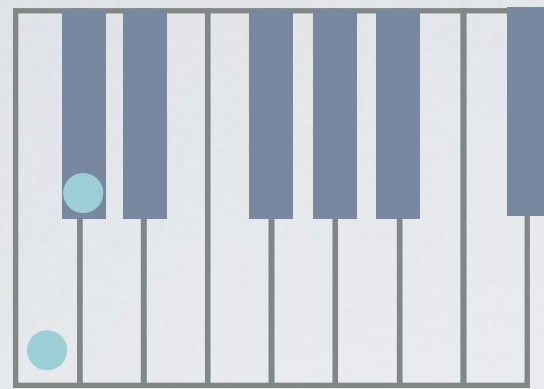


Semitones | half steps

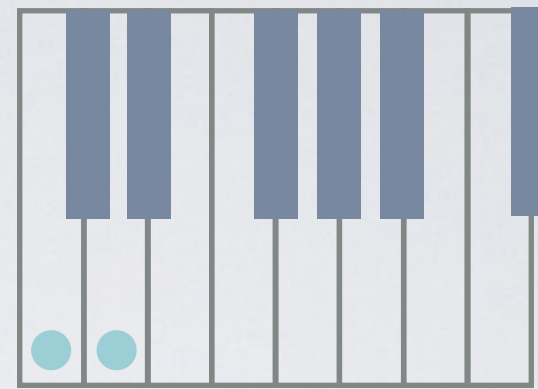
Identify a whole step



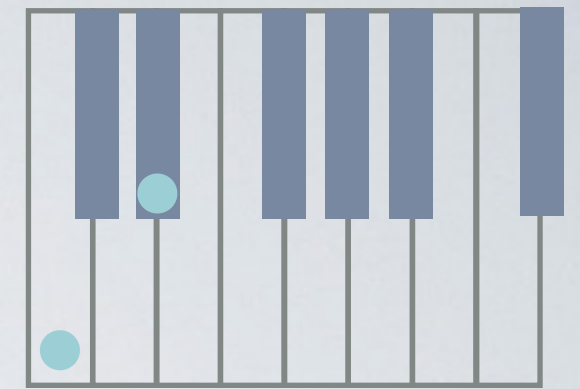
prime/unison



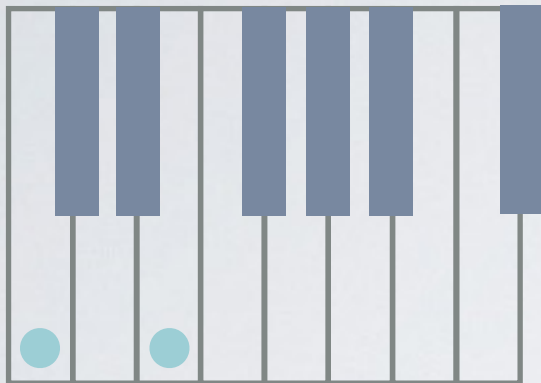
minor second



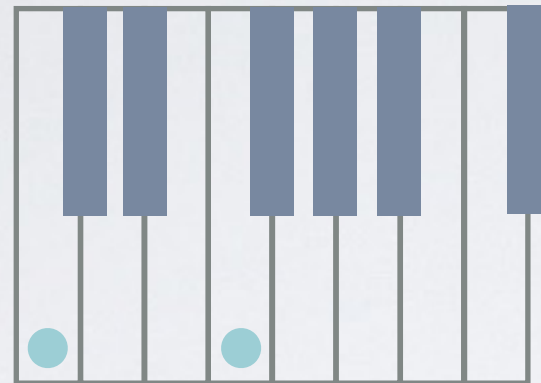
major second



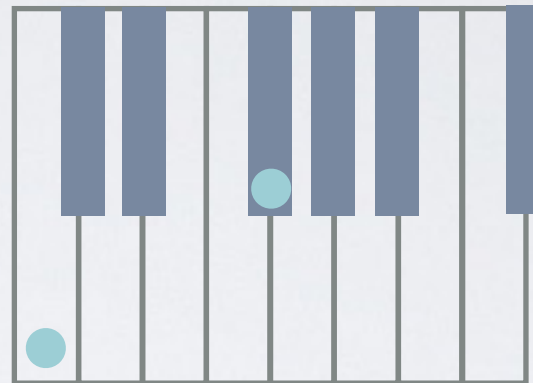
minor third



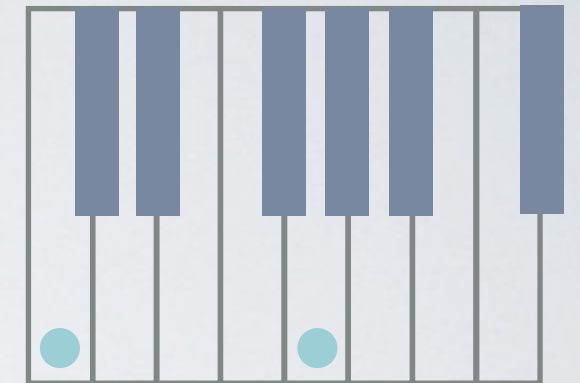
major third



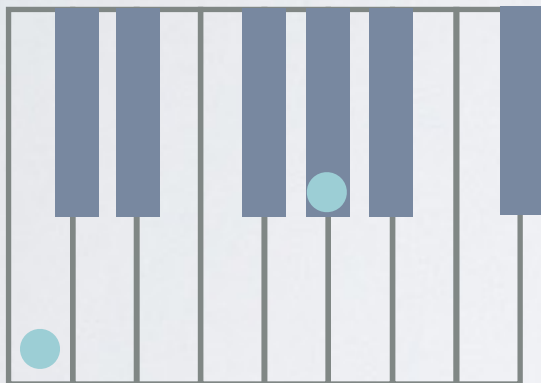
perfect fourth



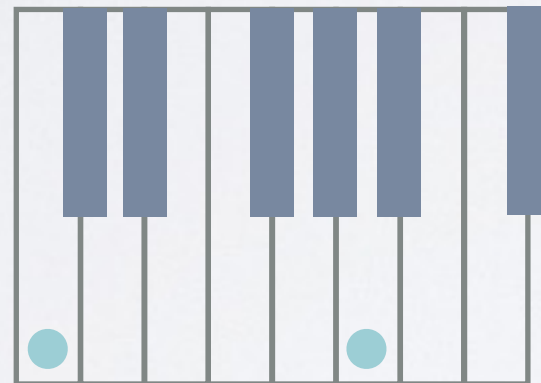
augmented fourth



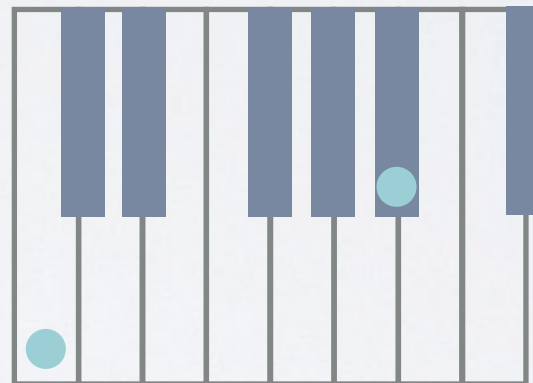
perfect fifth



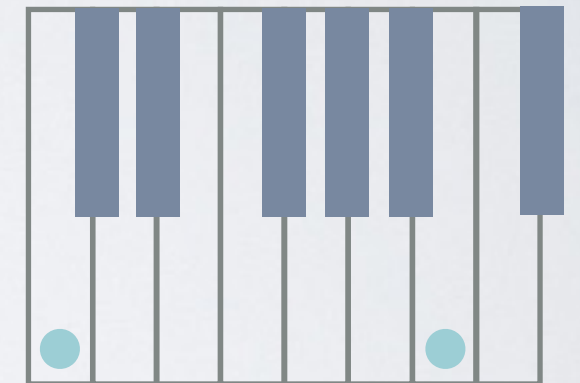
minor sixth



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

1. Unison

2. Octave

3. Perfect fifth

4. Perfect fourth

5. Major third

6. Minor sixth

7. Minor third

8. Major sixth

1. Major second

mild dissonance

2. Minor seventh

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3. Minor second

severe dissonance

4. Major Seventh

5. Augmented fourth

Perfect to imperfect consonance

# Exercise | Sequence

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

- Chordal Values
- Simple intervals | intervals that span 8 scale steps and under
  - prime/unison, second, third, fourth, fifth, sixth, seventh and octave
- Compound intervals | intervals that span more than 8 steps
  - ninth (compound second), tenth (compound third)  
...



Consonant (Peaceful)

Major (Bright)

Minor (Dark)

Dissonant (Tense)



**Table 2.1** Perceived Correlation between Emotions and Interval Harmonies

Interval	Notes	Emotion
Unison	C/C	Pleasing, peace
Octave	C/C	Pleasing, peace
Perfect fifth	C/G	Joy, triumph, courage
Perfect fourth	C/F	Excitement, contentment
Major third	C/E	Harmony, peace, joy
Minor sixth	C/Ab	Harshness, meanness, confusion
Minor third	C/Eb	Sadness, sorrow, annoyance, gloominess
Major sixth	C/A	Sweet, enjoyable, pleasing
Major second	C/D	Sadness, strangeness, tension
Minor seventh	C/Bb	Sadness, dismay, sorrow
Minor second	C/Db	Harshness, sinister, confusion, shock
Major seventh	C/B	Surprise, suspicion
Augmented fourth	C/F#	Suspense, shock, sorrow

Alex Carlin, Music Producer

The Interval. Harmony for Computer Musicians

# INTERACTIVE MUSIC

- Improvisational Construction: Variation and Form
- Real-Time Composition and Arranging
- Performance-Based Dynamics and Tempo Changes
- Experimental Composition Techniques
- Instrumental Design and User Interactive Performance

## Questions

In your five songs per week, identify the harmonic intervals in four measures.

Code that into Sonic-PI and upload into your week2/ name/ in Github

“@aisis” if you have any questions