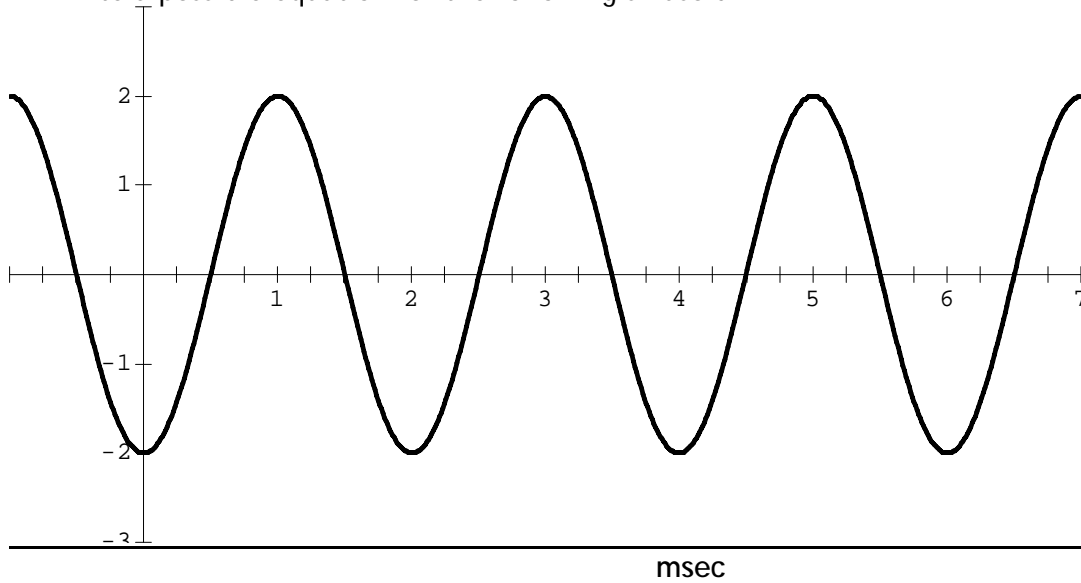


1. Write a possible equation for the following sinusoid



2. What does MIDI stand for?

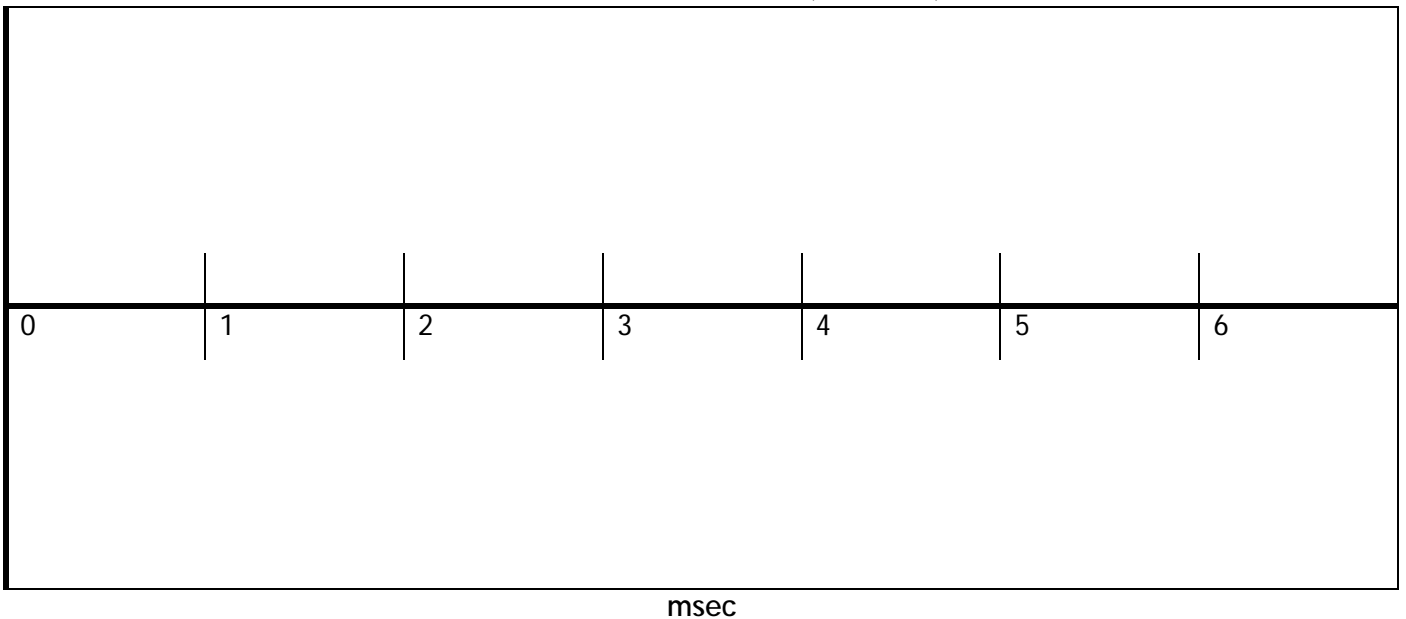
3. Write a pseudo midi file for the following sequence of notes:

Each crotchet ♩ (quarter note) is 0.25 sec long. The

minim ♪ (half note) is 0.5 sec long.

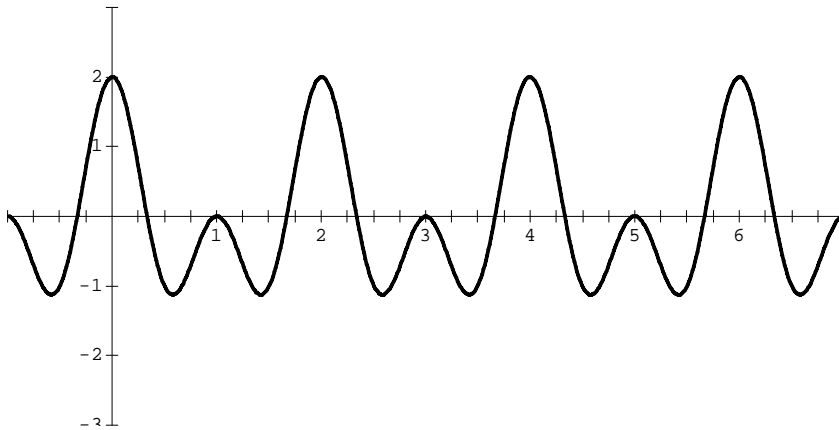
Timestamp	Note	Event
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4. Plot the sine signal on a graph over a 7ms. $s(t) = 10 \sin(2\pi 1000t)$

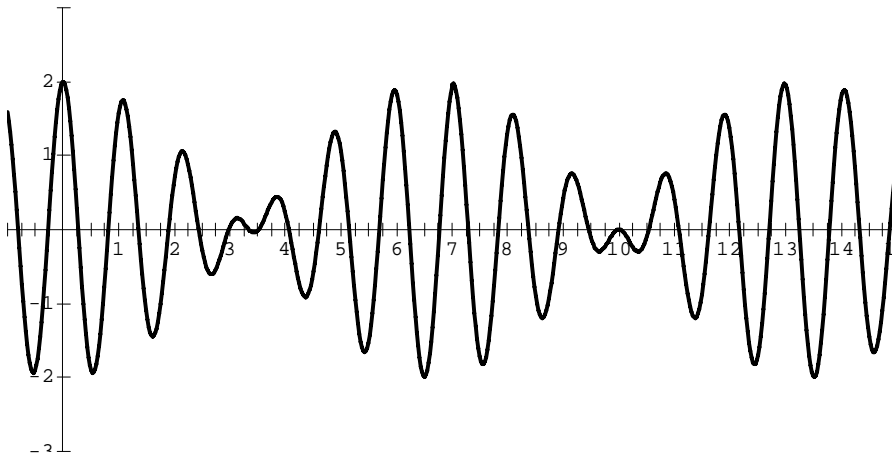


5. Between the two chords: 523.25Hz & 587.33Hz vs. 220.00Hz & 174.61Hz, which one would sound "better"? Explain.
6. The following graphs represents a sum of 2 sinusoids. What can you conclude about the two frequencies?

a)

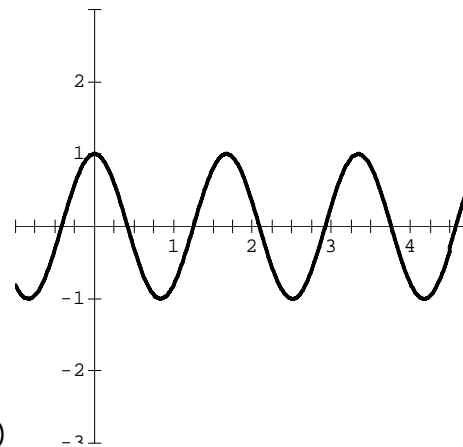
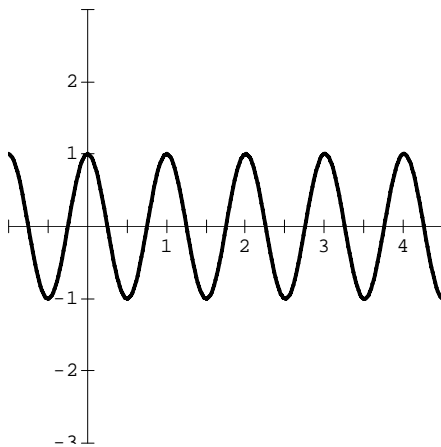


b)



7. Which one of the two graphs could represent someone's voice when speaking "eeeeee" into the microphone?

8. Which tuning fork has the higher pitch? Explain.



a)

or

b)

9. If a note is 850Hz, what is the frequency of the note one octave below it?

10. If $f(x) = x + 1$ $g(x) = x^2 + 3x$ $h(x) = x^2 - 2$, find $f(x) - g(x)$ and $f(2) + h(2)$