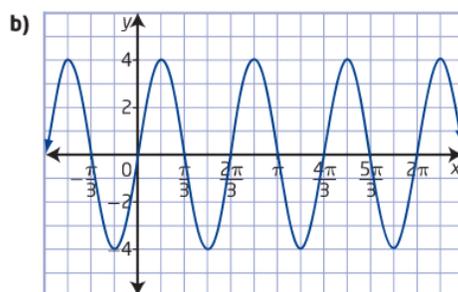
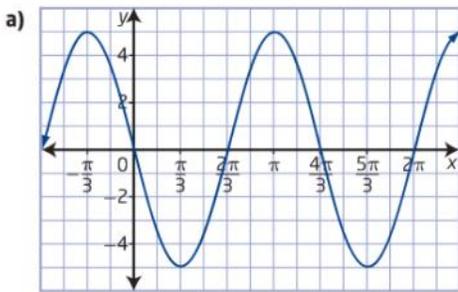
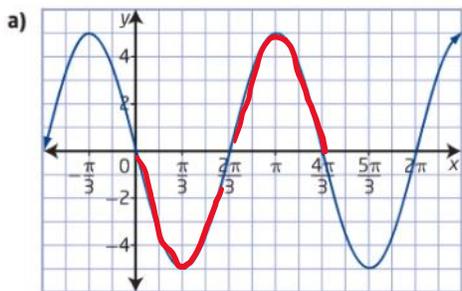


14. Sounds heard by the human ear are vibrations created by different air pressures. Musical sounds are regular or periodic vibrations. Pure tones will produce single sine waves on an oscilloscope. Determine the amplitude and period of each single sine wave shown.



$y = a \cdot \sin bx = \text{general form}$



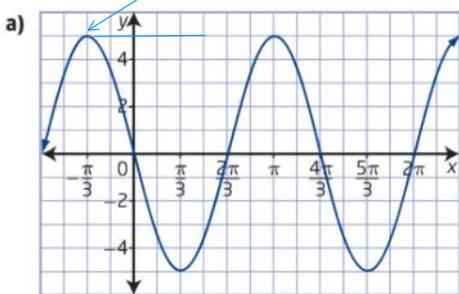
period [start, end]

0 $\frac{4\pi}{3}$

$$\text{Period} = \frac{\text{original per}}{b} = \frac{2\pi}{\frac{3}{2}} = \frac{4\pi}{3}$$

Period = $\frac{4\pi}{3}$

$y = 5 \Rightarrow$ this is the amplitude



$a = 5$ the amplitude

← central axis

Read the amplitude (i.e. a) from the graph.

14. a) Amplitude is 5; period is $\frac{4\pi}{3}$.

b) Amplitude is 4; Period is $\frac{2\pi}{3}$.

