

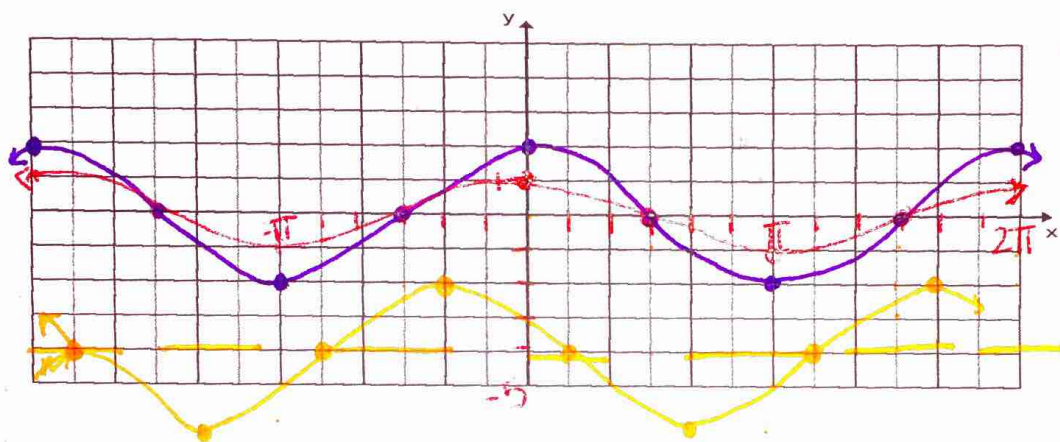
Full Transformations

For the following equations give the amplitude, period, midline and sketch the graph.

1. $y = 2 \cos(\theta + \frac{\pi}{3}) - 4$

$L \frac{\pi}{3}$ $D 4$

$a = 2$

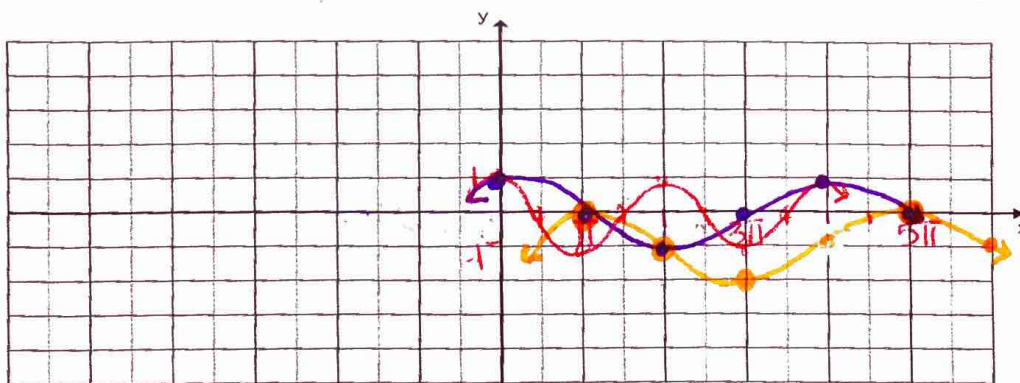


2. $y = \cos(\frac{1}{2}(x - \pi)) - 1$

$b = \frac{1}{2}$ $\frac{2\pi}{\frac{1}{2}} = 4\pi$ period

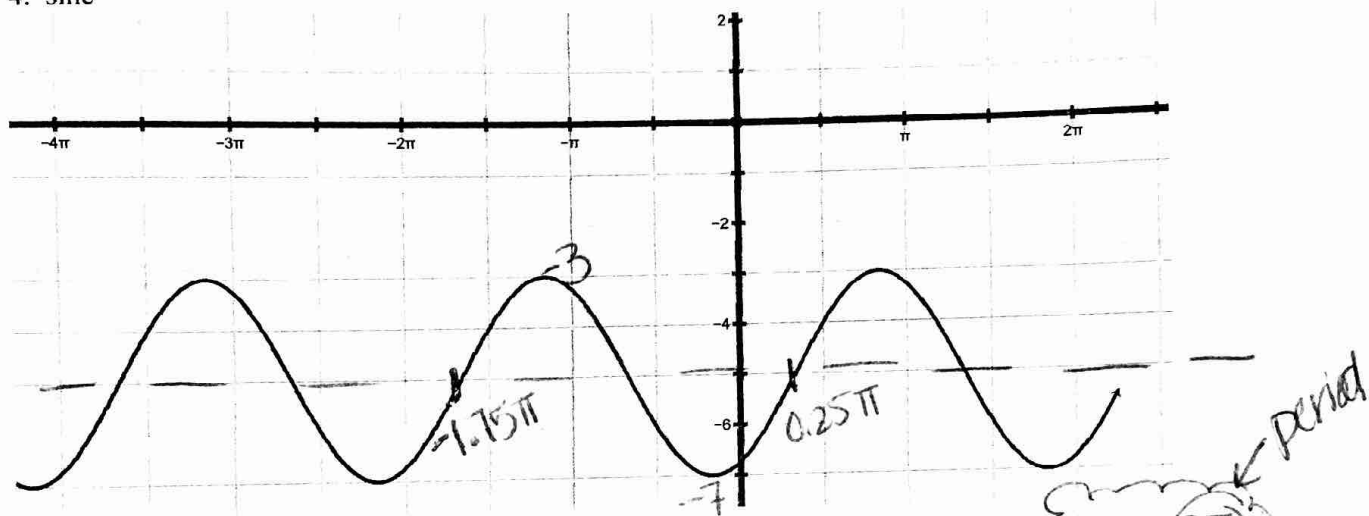
key pts $\frac{4\pi}{4} = \pi$

$D 1$
 $R \pi$



Given the following graphs find the equation.

4. sine



① midline: $y = -5$

③ period $\rightarrow b : 2\pi$
 $b = 1$

$$\frac{2\pi}{b} = \frac{2\pi}{1}$$

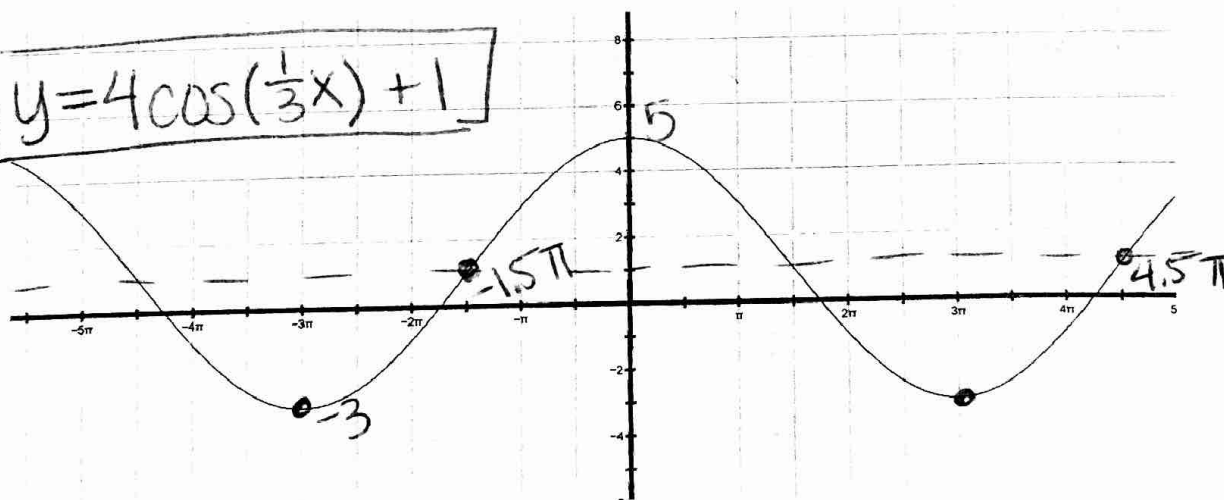
② amp: $a = 2$

④ sine L/R: $R \pi/4$

$$y = 2\sin(x - \pi/4) - 5$$

5. cosine

$$y = 4\cos(\frac{1}{3}x) + 1$$



① midline: $y = 1$

③ period $\rightarrow b : 6\pi$

④ cosine: none

② amp: $a = 4$

$$\frac{2\pi}{b} = \frac{6\pi}{1}$$

$$\frac{2\pi}{6\pi} = \frac{1}{3}$$