

Name KEY

Quiz 14.1 - 14.2

Practice

Find the amplitude and the period of the graph of the function.

1. $y = \sin 4x$ amplitude: 1 period $\frac{2\pi}{4} = \frac{\pi}{2}$

2. $y = \frac{1}{2} \cos 3x$ amplitude: $\frac{1}{2}$ period $\frac{2\pi}{3}$

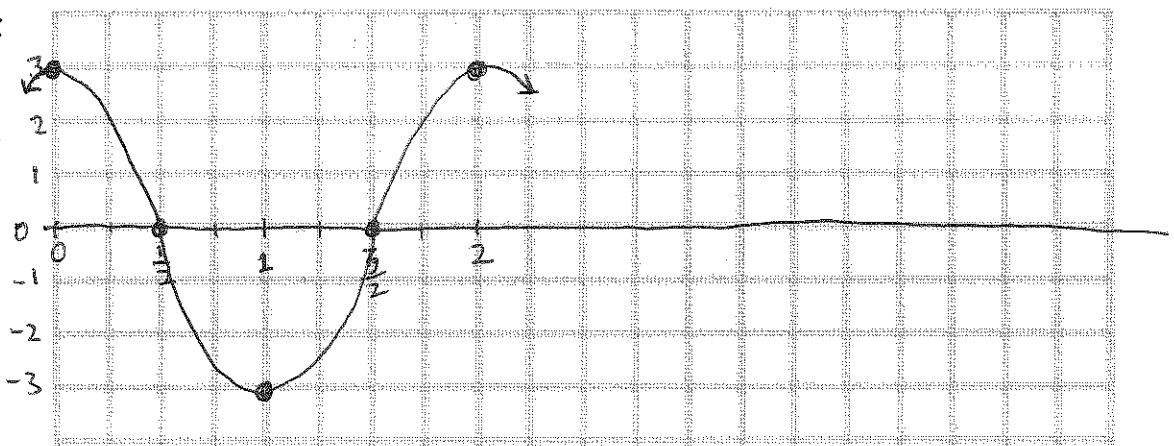
3. $y = 2 \sin 2\pi x$ amplitude: 2 period $\frac{2\pi}{2\pi} = 1$

4. $y = 4 \cos \frac{\pi}{4} x$ amplitude: 4 period $\frac{2\pi}{\frac{\pi}{4}} = 8$

Graph the function: Clearly show the points you plotted to create the graph.

5. $y = 3 \cos \pi x$

Period = $\frac{2\pi}{\pi} = 2$



6. $y = -4 \sin 2x$

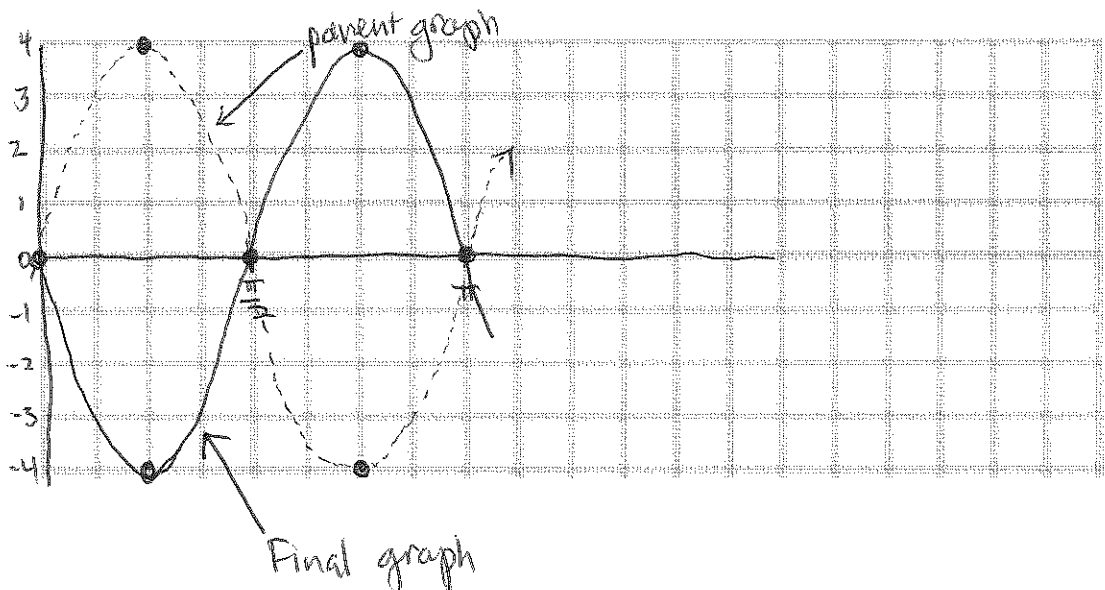
Period = $\frac{2\pi}{2} = \pi$

Parent graph:

$y = 4 \sin 2x$

(dotted curve)

Reflect in the
line $y = 0$.

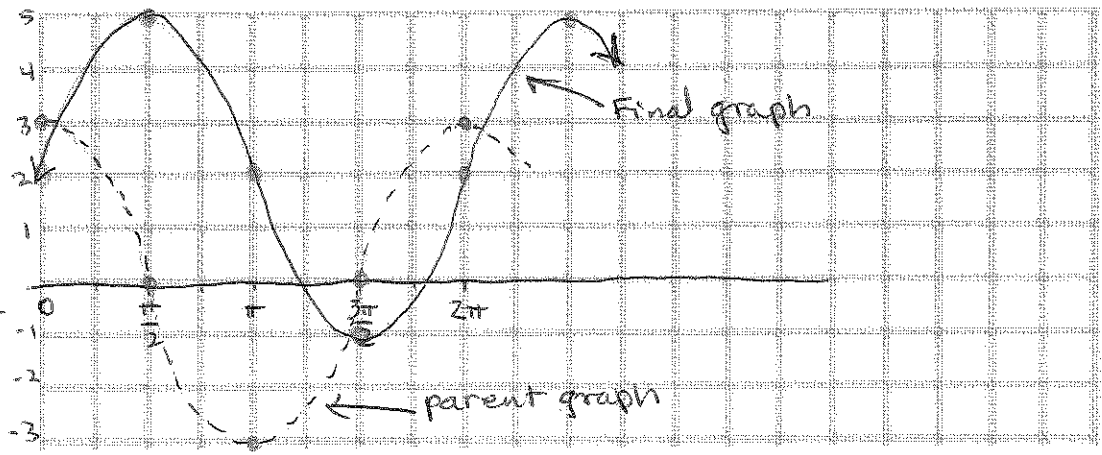


7. $y = 3 \cos(x - \frac{\pi}{2}) + 2$

Period: $\frac{2\pi}{1} = 2\pi$

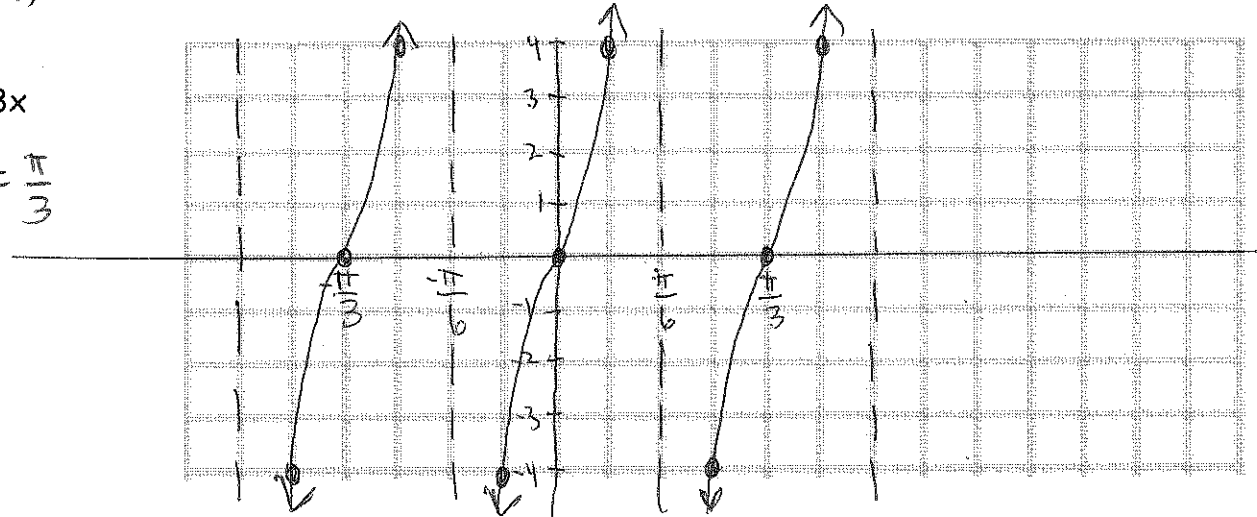
Parent: $y = 3 \cos x$
(dotted)

Translate: $\frac{\pi}{2}$ right
2 up
(Solid)



8. $y = 4 \tan 3x$

Period: $\frac{\pi}{3}$



9. Write an equation of the graph of $y = 4 \sin x$ translated up 5 units and left $\frac{\pi}{2}$ units.

$$y = 4 \sin(x + \frac{\pi}{2}) + 5$$

10. Find the amplitude and the period of the graph of the function.

a) $y = \frac{1}{4} \sin 8x$

amplitude: $\frac{1}{4}$ period: $\frac{2\pi}{8} = \frac{\pi}{4}$

b. $y = 5 \cos \pi x$

amplitude: 5 period: $\frac{2\pi}{\pi} = 2$