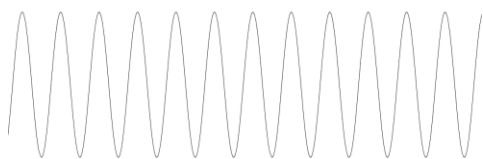


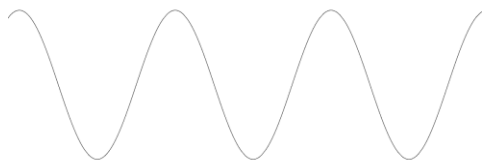
Jade



Drew on GC

$$h(t) = 3.75\pi + 4.5$$

60 rotations in 60 seconds - unbelievable



$$h(t) = 3.75 \sin \frac{\pi}{15}(t - 7.5) + 4.25$$

Drew on GC

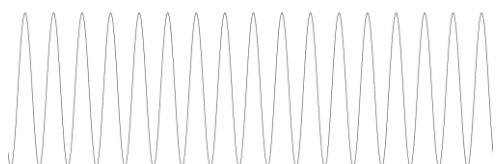
Looks good



$$h(t) = 4 \frac{\pi}{15}(t - 7.5) + 4.25$$

Drew on GC

-period not correct



$$h(t) = 4 \cos \frac{\pi}{30}(t - 15) + 4.25$$

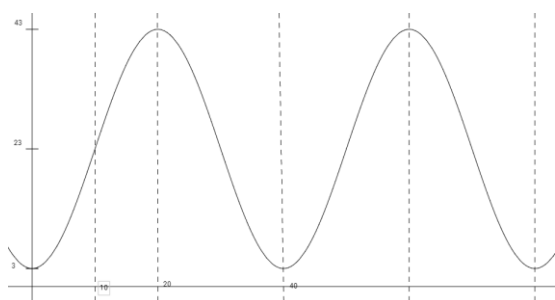
Drew on GC

60 rotations - unbelievable

So $\Rightarrow h(t) = 3.75 \sin \frac{\pi}{15}(t - 7.5) + 4.25$ is the correct equation.

1

Manu:



$$\frac{2\pi}{40}$$

$$h(t) = 20 \sin \frac{\pi}{20}(t - 10) + 23$$

2

Jade:

$$3.75 \sin \frac{\pi}{15}(t - 7.5) + 4.25 \geq 5$$

$$8.461 \leq t \leq 21.5385$$

$$38.461 \leq t \leq 51.5385$$

Manu:

$$5 \leq 20 \sin \frac{\pi}{20}(t - 10) + 23 \leq 20 \text{ going up}$$

$$2.87 \leq t \leq 9.04$$

$$42.87 \leq t \leq 49.04$$

$$82.87 \leq t \leq 89.04$$

3