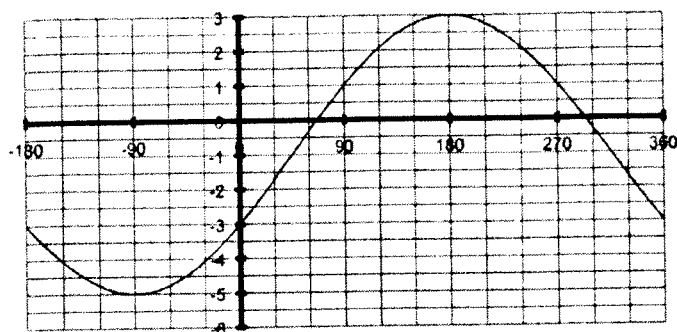
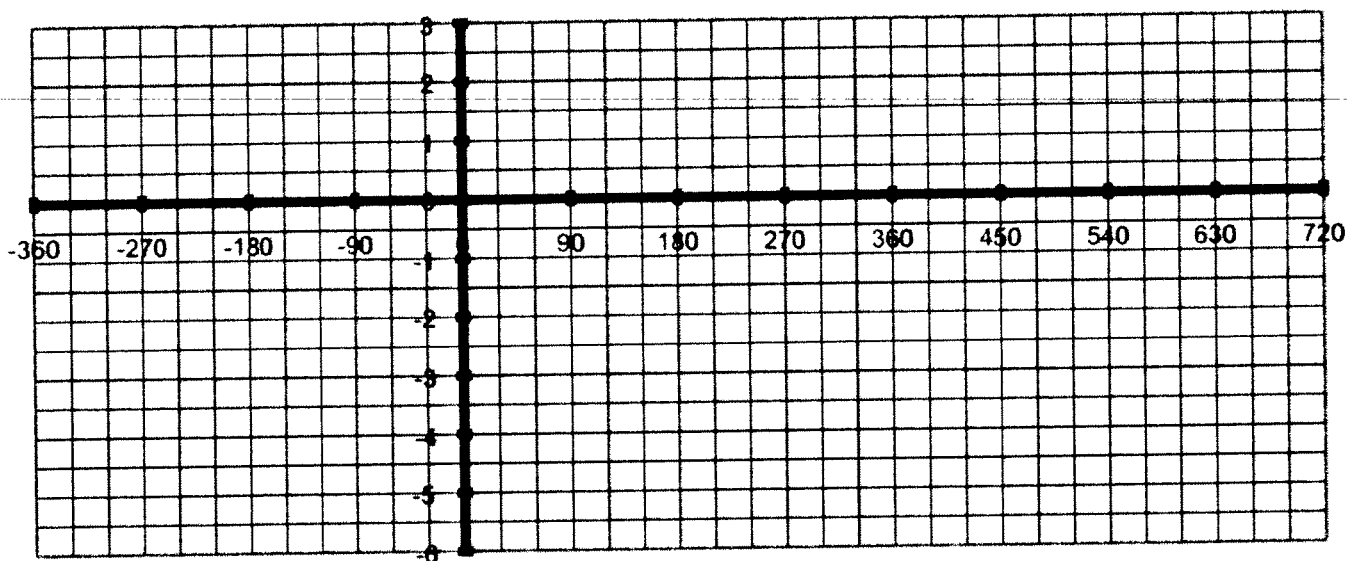


We can use graphs and equations to model sinusoidal functions with multiple transformations.

Ex. Write an equation to model the following sinusoidal function.

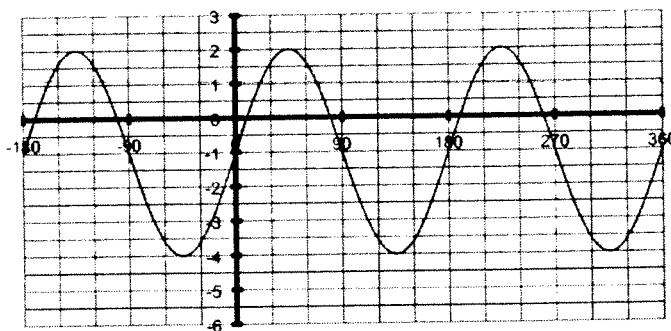
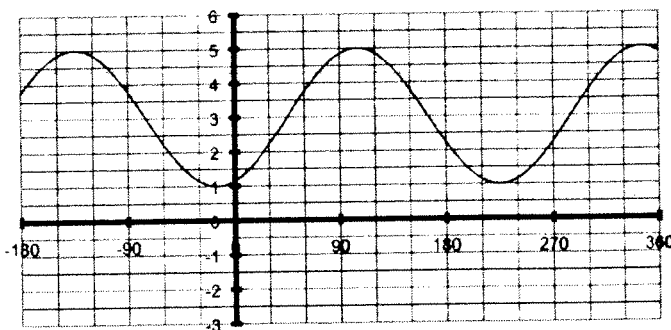


Ex. Create a graph to represent the sinusoidal function $y = 2\sin\frac{3}{4}(x - 60^\circ) - 3$. Label its properties.

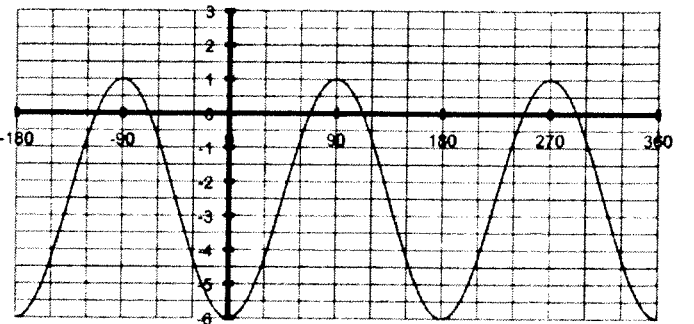
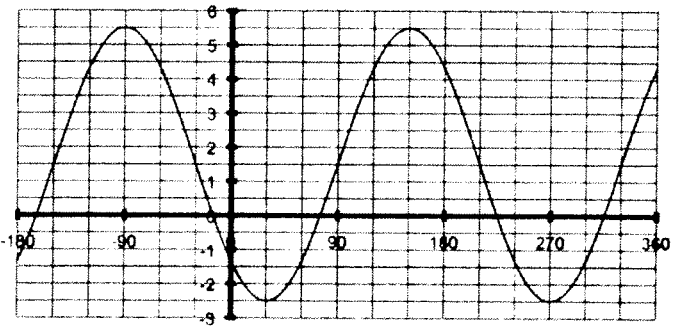
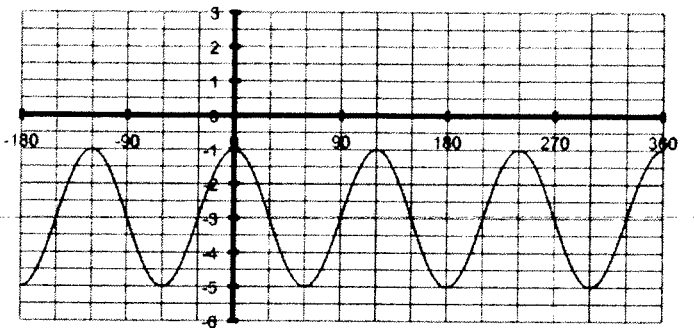
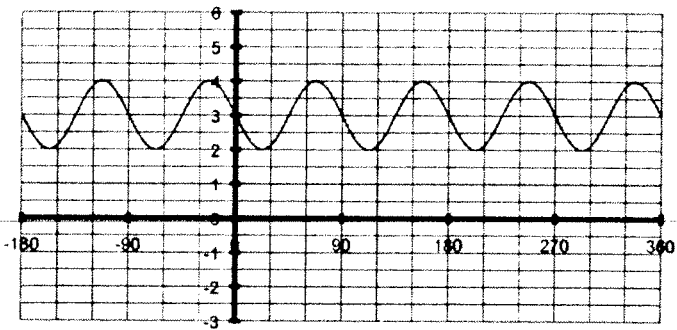
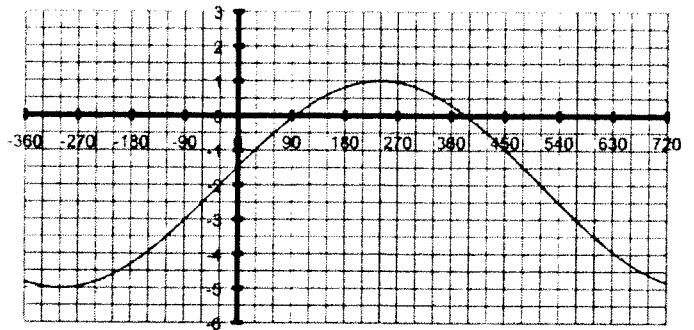
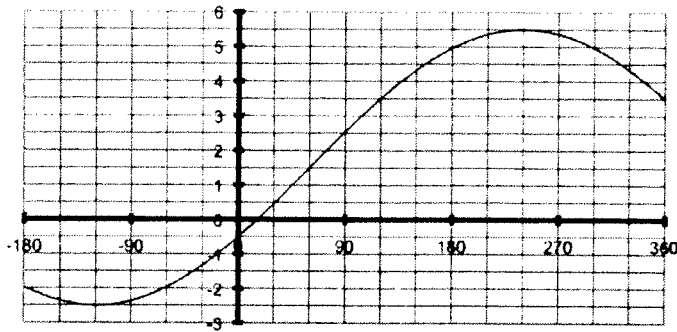


Homework:

1. Determine equations to model each of the following sinusoidal functions.



2. Determine equations to model each of the following sinusoidal functions.



3. Create graphs to represent the following sinusoidal functions. Label the amplitude and period of each.

a) $y = -\sin 4(x + 60^\circ) + 2$

b) $y = 4 \sin \frac{1}{3}(x + 90^\circ)$

c) $y = 2 \cos 3(x - 30^\circ) - 1$

d) $y = -\cos(2x + 60^\circ) + 5$