

## Unit 3 (4.6a) Horizontal Transformations Skills Quiz Practice (in degrees)

\*Be able to graph the parent functions of  $\sin \theta$  and  $\cos \theta$

\*Be able to graph horizontal dilations and translations.

\*Be able to write both a sine and a cosine curve equation from a graph.

\*Be able to write an equation from given information.

**Describe the transformations then graph.**

1.  $y = \cos(\theta + 70^\circ)$

2.  $y = \sin 9\theta$

3.  $y = \sin 6(\theta - 50^\circ)$

4.  $y = -\cos\left[\frac{1}{8}(\theta + 30^\circ)\right]$

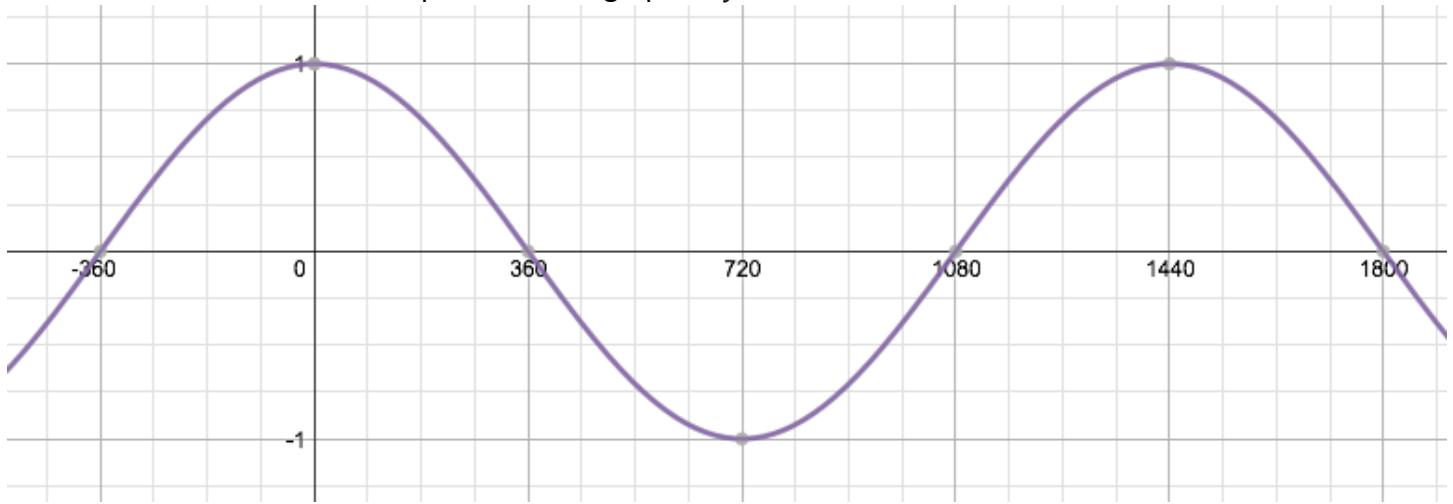
5. Write the equation of a sine curve with the following transformations:

- Horizontal dilation (h.d.) of  $\frac{1}{7}$
- Horizontal translation (h.t.) of left  $25^\circ$

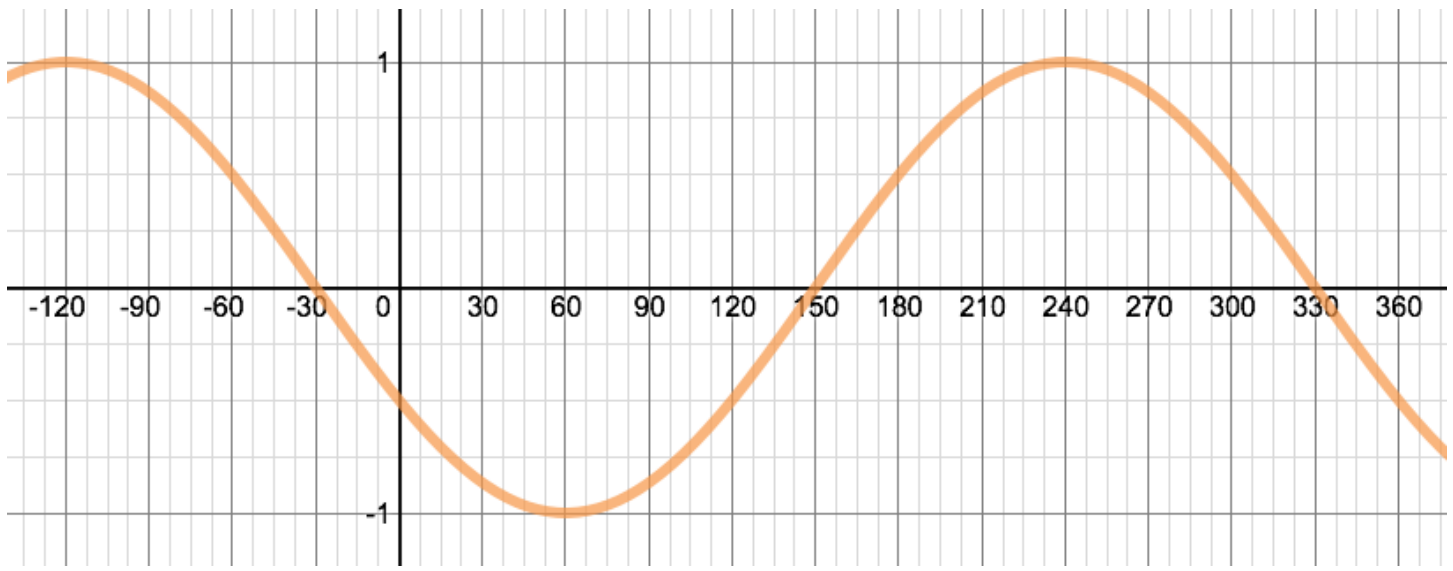
6. Write the equation of a cosine curve with the following transformations:

- Period of at  $3600^\circ$
- Phase shift of  $26^\circ$

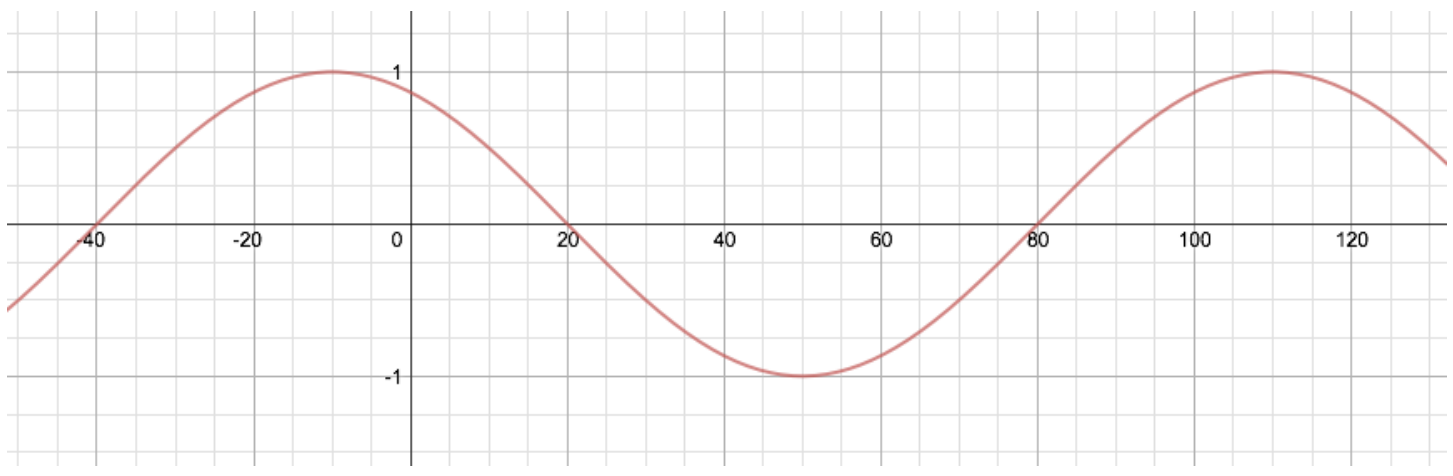
7. Write a SINE AND COSINE equation of the graph.  $y =$  \_\_\_\_\_



8. Write a SINE AND COSINE equation of the graph.  $y =$  \_\_\_\_\_



9. Write a SINE AND COSINE equation of the graph.  $y =$  \_\_\_\_\_



### Unit 3 Review for Horizontal Transformations Quiz (in radians)

Graph.

1.  $y = \sin 6\left(x - \frac{\pi}{2}\right)$

2.  $y = \cos \frac{1}{2}\left(x + \frac{\pi}{4}\right)$

3.  $y = \sin 5x$

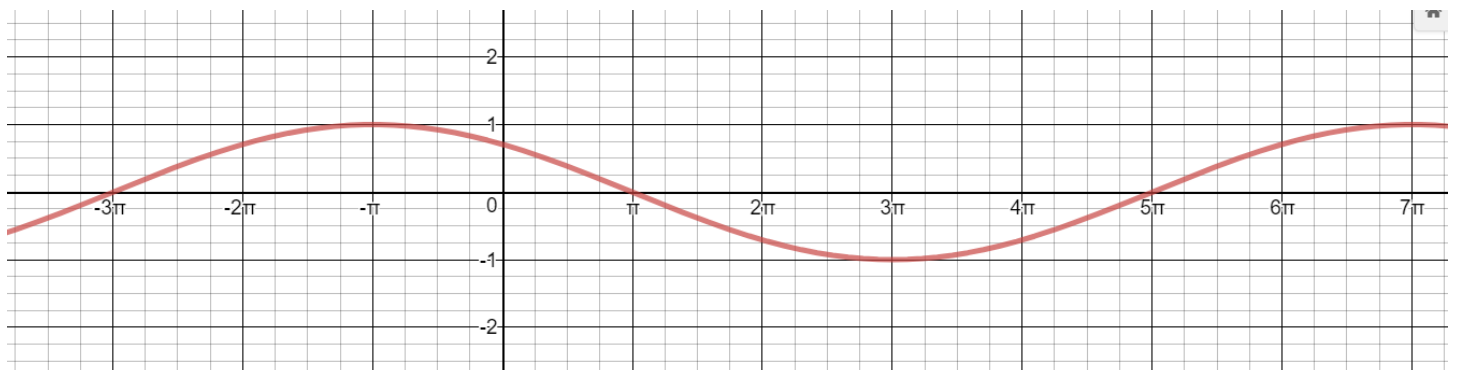
4.  $y = \cos(x + \pi)$

5.  $y = \cos 2\left(x - \frac{\pi}{3}\right)$

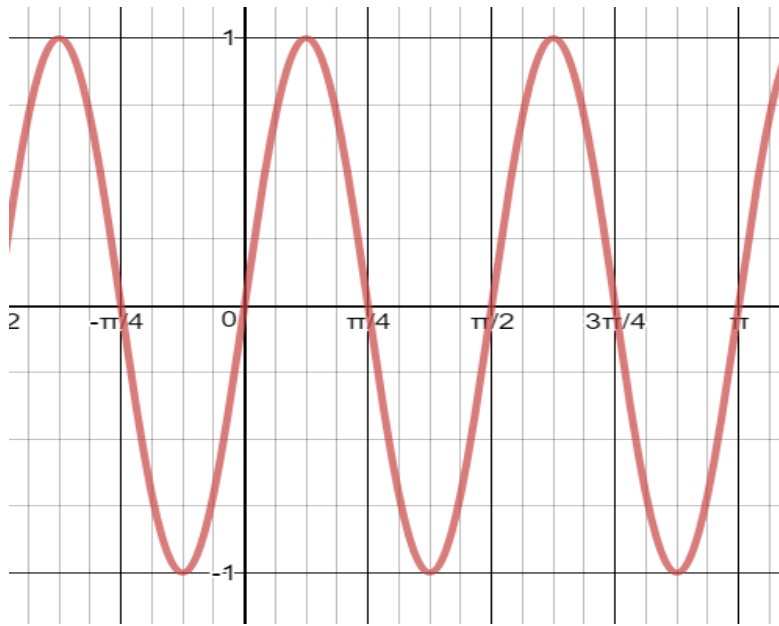
6.  $y = \sin \frac{1}{3}\left(x + \frac{\pi}{6}\right)$

Write **2 equations** given the graphs.

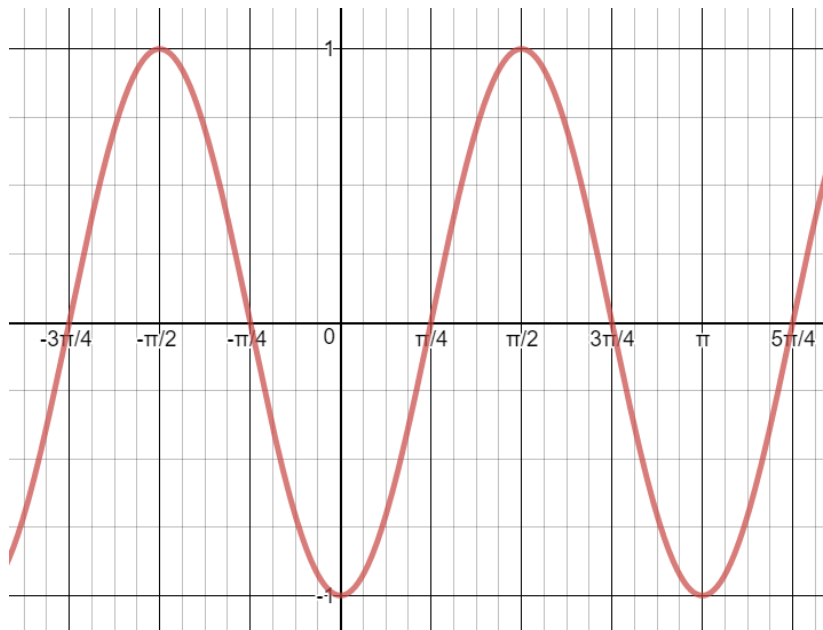
7.



8.



9.



10.

