

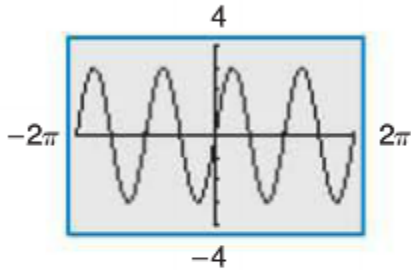
**DUE: A-Day Monday 02/29/16, B-day Tuesday 03/01/16**

**Pre-Calculus: Lesson 4.5 Graphs of Sine and Cosine Functions p.299, #11-20 all**

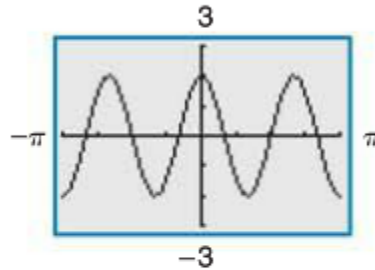
Please complete the assignment using the "tri-fold" method (You may use [www.calcchat.com](http://www.calcchat.com) to check your work):

**Finding the Period and Amplitude** In Exercises 11–20, find the period and amplitude.

11.  $y = 3 \sin 2x$



12.  $y = 2 \cos 3x$



13.  $y = \frac{5}{2} \cos \frac{x}{2}$

14.  $y = -3 \sin \frac{x}{3}$

15.  $y = \frac{2}{3} \sin \pi x$

16.  $y = \frac{3}{2} \cos \frac{\pi x}{2}$

17.  $y = -2 \sin x$

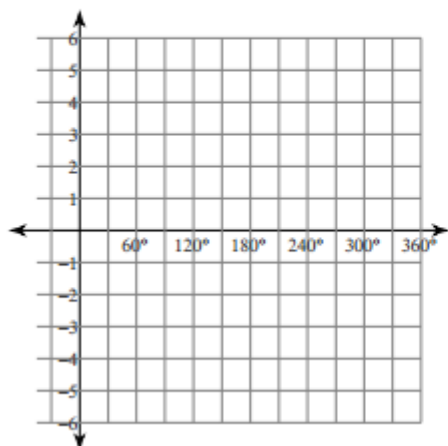
18.  $y = -\cos \frac{2x}{5}$

19.  $y = \frac{1}{4} \cos \frac{2x}{3}$

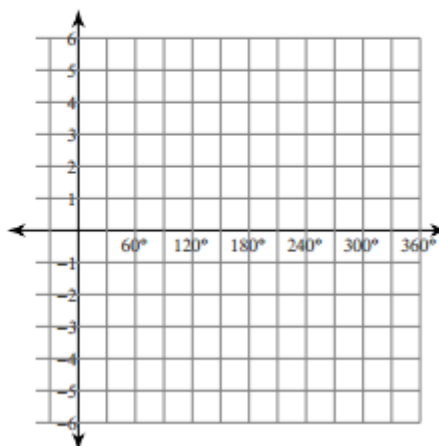
20.  $y = \frac{5}{2} \cos \frac{x}{4}$

Using degrees, find the amplitude and period of each function. Then graph.

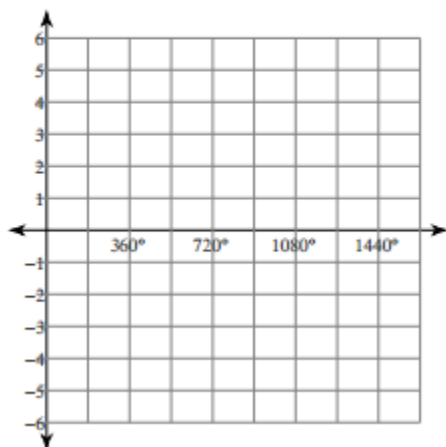
1)  $y = \sin 3\theta$



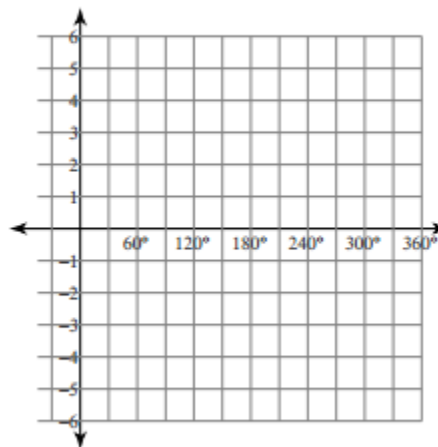
2)  $y = 4\cos 3\theta$



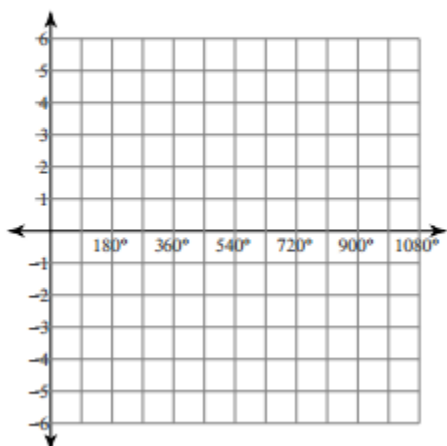
3)  $y = 2\sin \frac{\theta}{3}$



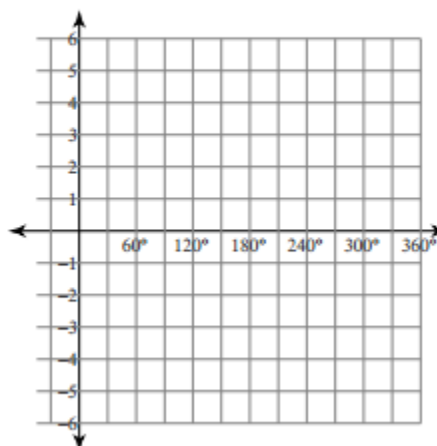
4)  $y = \tan 2\theta$



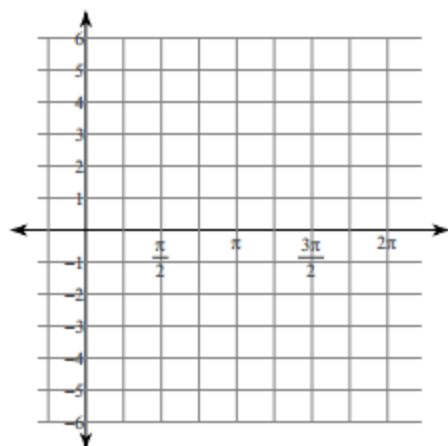
5)  $y = 3\cos \frac{\theta}{2}$



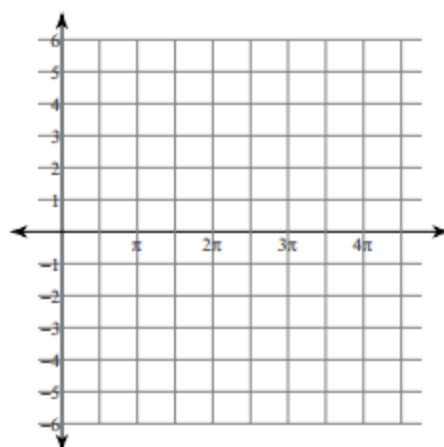
6)  $y = \frac{1}{2}\tan \theta$



7)  $y = \sin 3\theta$



8)  $y = \frac{1}{2} \tan \frac{\theta}{3}$



10)  $y = 2\cos 4\theta$

