

Precalculus

Name: _____

Chapter 4 Test #2 Review

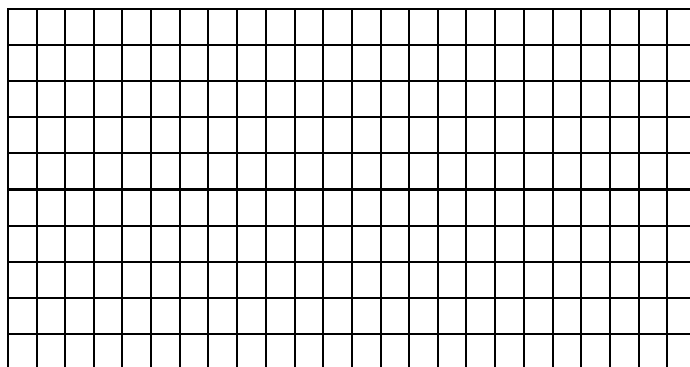
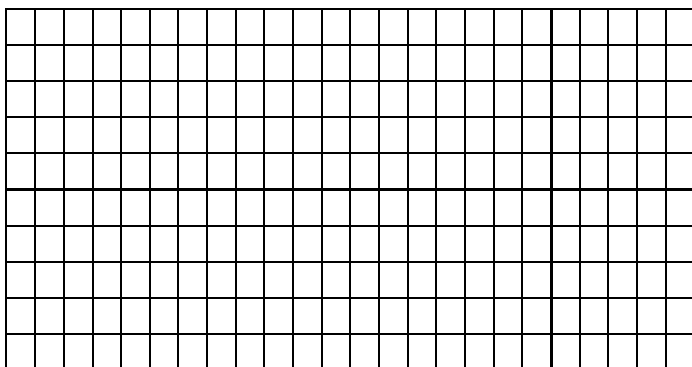
Date: _____ Hour: _____

Show all work for full credit.

Sketch each graph over a two period interval. State the domain and range of each function. Label asymptotes as necessary.

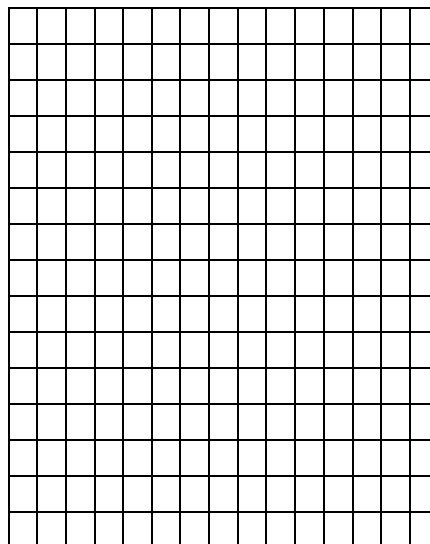
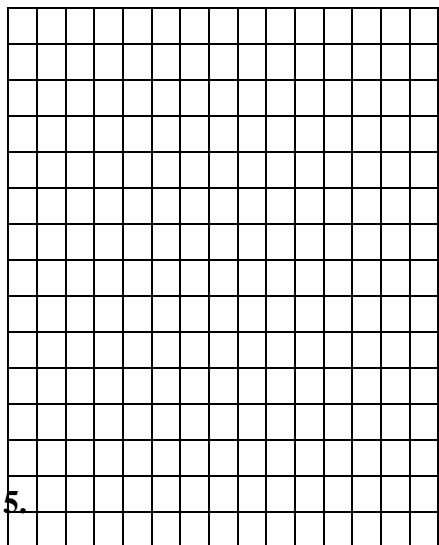
1. $y = \frac{1}{2} \cos x + 3$

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

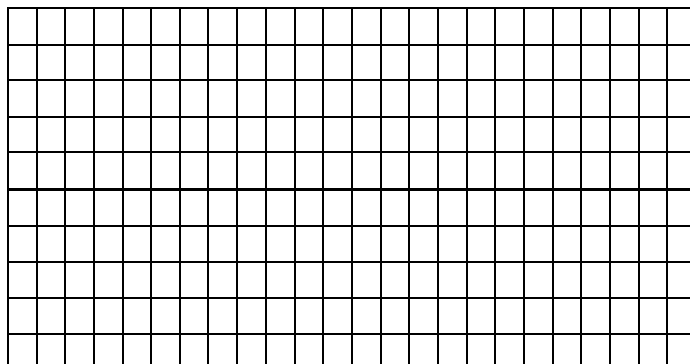


3. $y = -3 \tan 2x$

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

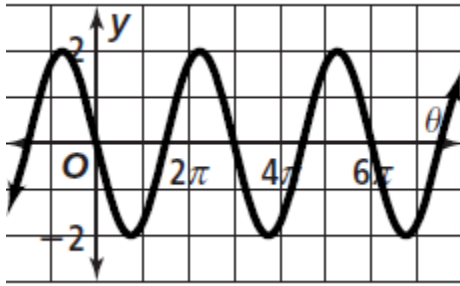


5. $y = -1 + \csc x$

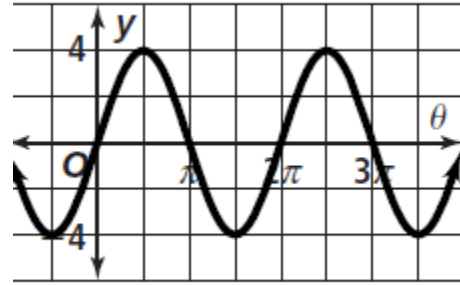


Find the amplitude and period of each sine curve. Then write an equation for the function.

6.



7.



Write an equation for each translation.

8. The sine function translated 2 units down and reflected.

9. The cosine function translated π units to the left with period 4π .

10. The cosine function with amplitude 4 and period $\frac{\pi}{2}$.

Find the amplitude and period for each function. Describe any phase shift and vertical shift in the graph.

11. $y = 2 + 3 \cos x$

12. $y = -2\sin(x + \frac{\pi}{2})$

13. $y = 1 + \cos 2x$

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

15. $y = \cos(\frac{1}{2}x) - 3$

16. $y = 1 + 5\sin(4x + 2\pi)$

For a review of lessons 4.7 and 4.8 complete the following exercises:

pages 365-366 #105-117 odd, 123-127 odd, 139-141 all and page 367 # 19