PreCalculus

NAME_____

Review 5.4-5.6

PERIOD_____ DATE_____
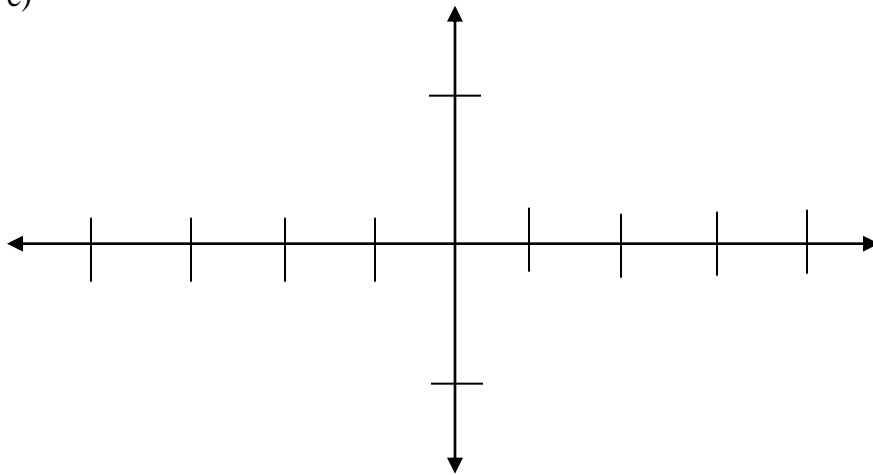
NO CALCULATOR!!!

For the following find <u>ONE PERIOD</u>:

a) amplitude   b) period   c) phase shift   d) vertical shift   e) sketch the graph   f) domain   g) range.

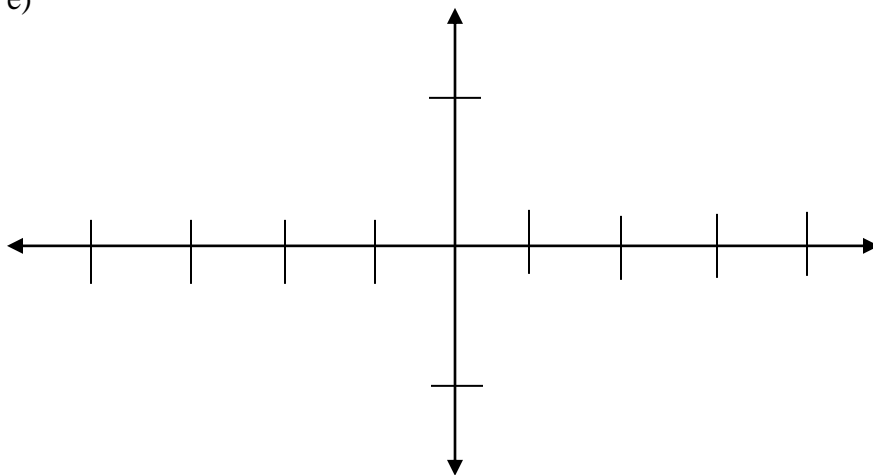1) $y = 2\sec 2\theta$ a)_____   b)_____   c)_____   d)_____

    e)

                f)_____

                g)_____

2) $y = -2\sin(4\theta - \pi) - 1$ a)_____   b)_____   c)_____   d)_____

    e)

                f)_____
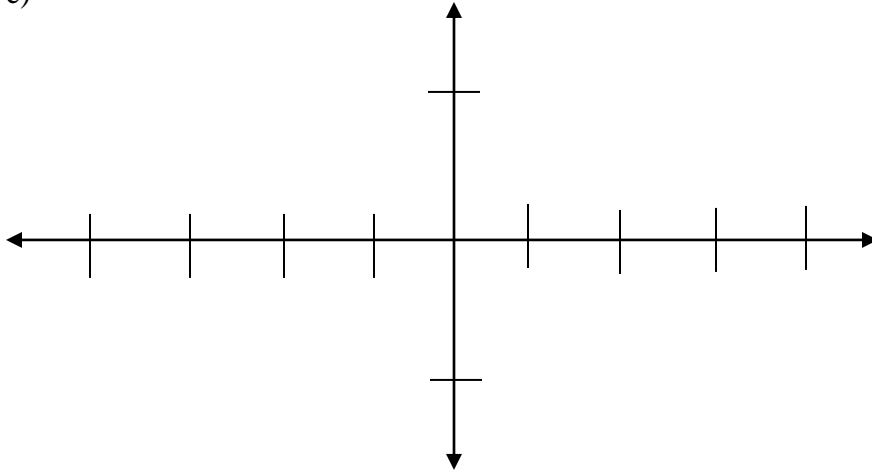
                g)_____

For the following find the:
a) amplitude   b) period   c) phase shift   d) vertical shift   e) sketch the graph   f) domain   g) range.

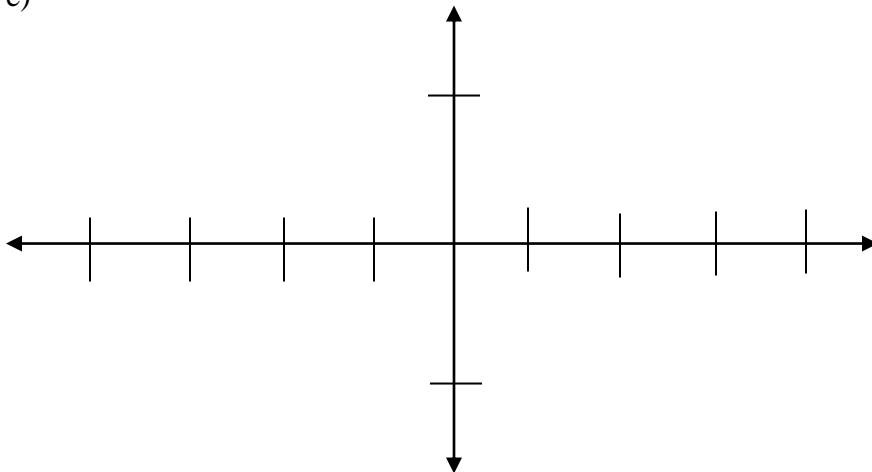3) $y = 4\tan\left(\theta + \dfrac{\pi}{4}\right) + 1$ a)_____   b)_____   c)_____   d)_____

e)

f)_____

g)_____

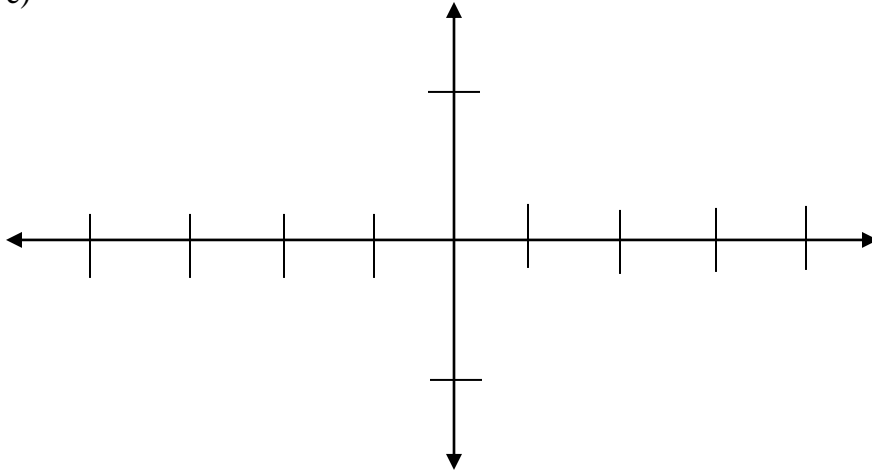4) $y = \csc(2\theta - \pi)$ a)_____   b)_____   c)_____   d)_____

e)

f)_____

g)_____

For the following find the:
a) amplitude   b) period   c) phase shift   d) vertical shift   e) sketch the graph   f) domain   g) range.

5) $y = -2\cos\left(\dfrac{\theta}{4} - \dfrac{\pi}{2}\right) - 1$ a)_____   b)_____   c)_____   d)_____
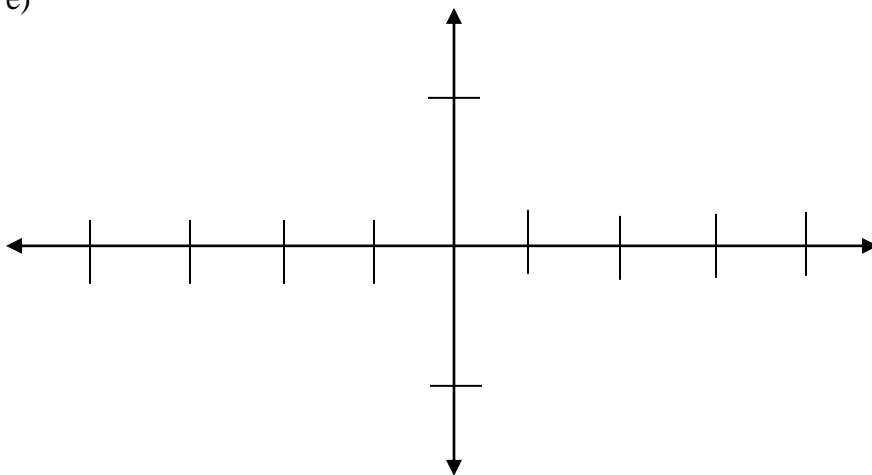
e)

f)_____

g)_____

6) $y = -3\cot\left(\theta - \dfrac{\pi}{2}\right)$ a)_____   b)_____   c)_____   d)_____

e)

f)_____

g)_____

Simplify the following expressions in radians.

7. $\arcsin\left(\dfrac{1}{2}\right)$

8. $\cos^{-1}\left(-\dfrac{\sqrt{2}}{2}\right)$

9. $\arctan\left(\sqrt{3}\right)$

10. $\tan^{-1}(-1)$

11. $\arccos(0)$

12. $\sin^{-1}\left(-\dfrac{\sqrt{3}}{2}\right)$

Simplify the following expressions.

13. $\sin^{-1}\left(\sin\dfrac{7\pi}{6}\right)$

14. $\arccos\left(\cos\dfrac{5\pi}{4}\right)$

15. $\tan^{-1}\left(\tan\dfrac{2\pi}{3}\right)$

16. $\sec\left(\arcsin\dfrac{\sqrt{2}}{2}\right)$

17. $\tan\left(\cos^{-1}\left(-\dfrac{\sqrt{3}}{2}\right)\right)$

18. $\cos(\arctan 0)$

Simplify the following – use triangles if needed.

19. $\sec\left(\sin^{-1}\dfrac{x}{5}\right)$

20. $\cot\left(\arccos\left(-\dfrac{5}{13}\right)\right)$

21. $\sin\left(\tan\left(-\dfrac{2}{5}\right)\right)$

22. $\cot\left(\sin^{-1}(x-1)\right)$