Math III

Name_____

Unit 6 Final Review

Date_____ Period____

State the quadrant in which the terminal side of each angle lies.

1) $-\frac{5\pi}{6}$

2) 282°

Convert each degree measure into radians and each radian measure into degrees.

3) $-\frac{13\pi}{12}$

4) -300°

Find the exact value of each trigonometric function.

5) $\cos -\frac{2\pi}{3}$

6) $\csc \frac{2\pi}{3}$

7) $\sin \frac{3\pi}{2}$

8) $\cos \pi$

9) $\cos -\frac{\pi}{6}$

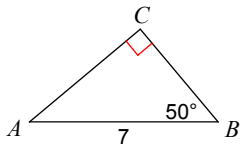
10) $\sin \frac{\pi}{4}$

11) $\cot -\frac{\pi}{4}$

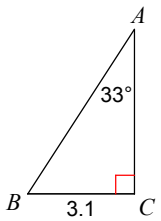
12) sec 90°

Solve each triangle. Round answers to the nearest tenth.

13)

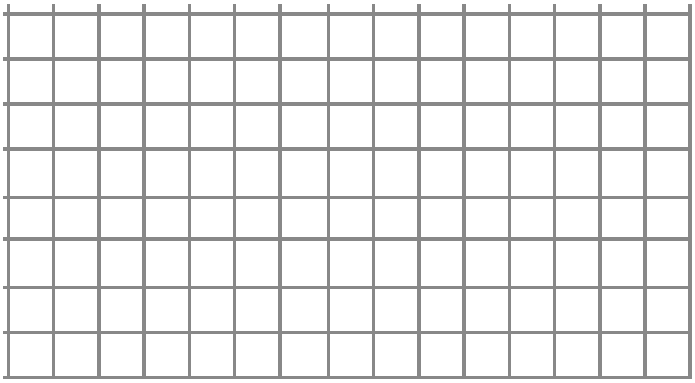


14)



Graph each function. State the domain, range, period, amplitude, and midline.

15) $y = 2\sin 3\theta$



Domain:

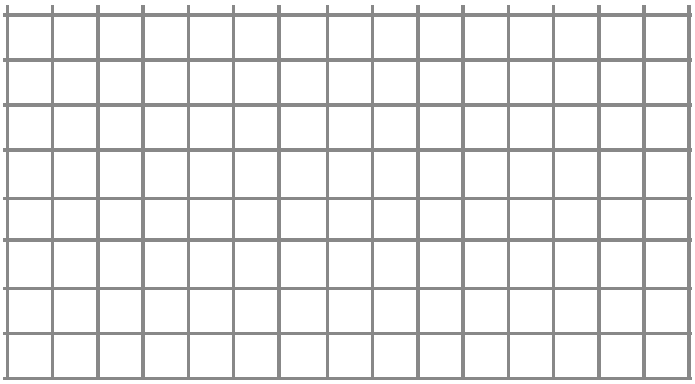
Range:

Period:

Amplitude:

Midline:

16) $y = 2\cos\left(\theta + \frac{\pi}{2}\right) - 2$



Domain:

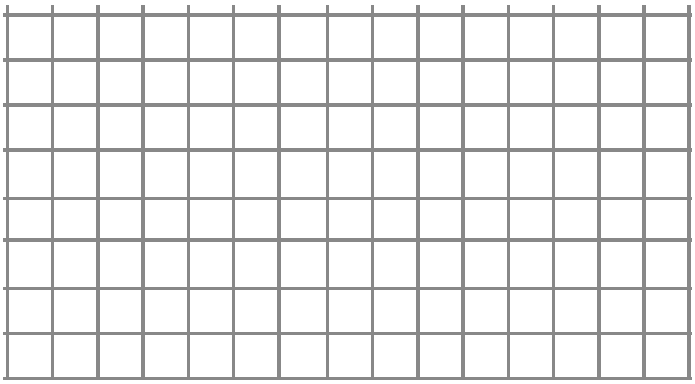
Range:

Period:

Amplitude:

Midline:

17) $y = \tan\left(\theta + \frac{\pi}{6}\right) + 1$



Domain:

Range:

Period:

Amplitude:

Midline:

18) If (-3,5) is on the terminal side of θ, evaluate $\sin\theta$.

Answers to Unit 6 Final Review

1) III

2) IV

3) -195°

4) $-\frac{5\pi}{3}$

5) $-\frac{1}{2}$

6) $\frac{2\sqrt{3}}{3}$

7) -1

8) -1

9) $\frac{\sqrt{3}}{2}$

10) $\frac{\sqrt{2}}{2}$

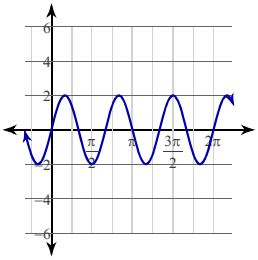
11) -1

12) Undefined

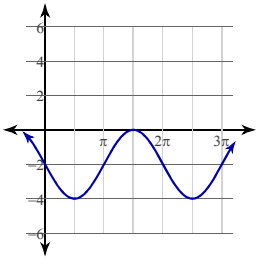
13) $m\angle A = 40°,\ b = 5.4,\ a = 4.5$

14) $m\angle B = 57°,\ b = 4.8,\ c = 5.7$

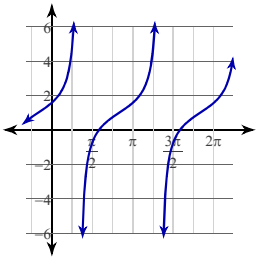
15)



16)



17)



18) $\frac{5\sqrt{34}}{34}$