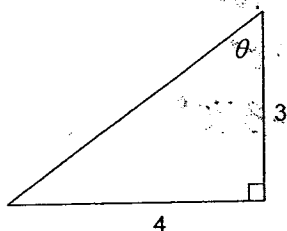


Name _____ Period _____

Math III Chapter 6 Review

1. Evaluate the six trigonometric functions of θ .



a. $\sin \theta =$

b. $\cos \theta =$

c. $\tan \theta =$

d. $\csc \theta =$

e. $\sec \theta =$

f. $\cot \theta =$

2. Given that $\sin \theta = \frac{5}{6}$ sketch a right triangle that has θ as one of its acute angles. Then find the values of the remaining five trigonometric functions. Give exact answers—*no decimals*.

a. (sketch)

b. $\csc \theta =$

c. $\cos \theta =$

d. $\tan \theta =$

e. $\sec \theta =$

f. $\cot \theta =$

3. A tree casts a 48.3 foot shadow when the angle of elevation of the sun is 53.4° . How tall is the tree?

Identify a *positive* and a *negative* angle that are coterminal with the given angle.

4. 192° (Answers must be in degrees.)

5. 380° (Answers must be in degrees.)

Convert to radians. Give an exact answer—*no decimals!*

6. -50°

7. 135°

Convert to degrees.

8. $\frac{\pi}{9}$

9. $\frac{14\pi}{15}$

Evaluate without a calculator. *No decimal answers!!*

7. $\cos \frac{7\pi}{6}$

8. $\sec \frac{\pi}{3}$

9. $\tan \frac{7\pi}{4}$

10. $\csc 45^\circ$

11. $\cot 240^\circ$

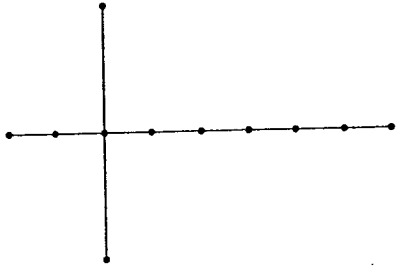
12. $\sin (-210^\circ)$

13. A dump truck has a 12 foot bed. When tilted at its maximum angle it creates an angle of 36° . What is the maximum height the bed reaches above its original position?

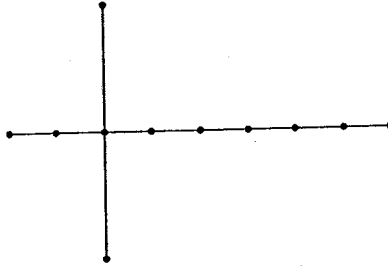
Name _____ Period _____

Graph one period of the given trigonometric function.

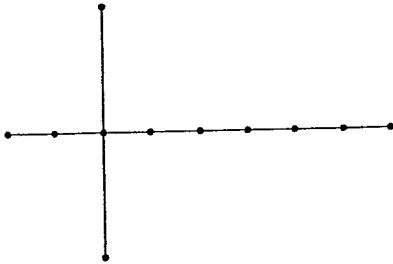
20. $y = 2\cos x$



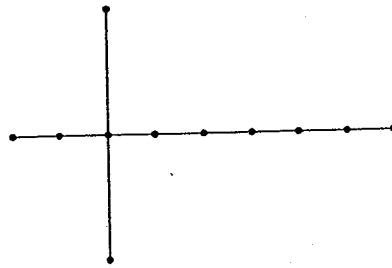
21. $y = \sin 2x$



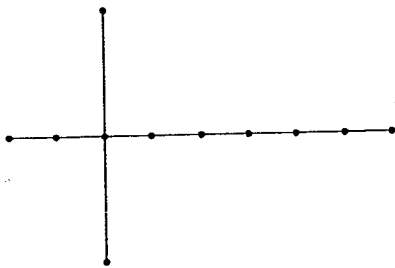
22. $y = 3\sin \frac{\pi}{2}x$



23. $y = 2\cos(x) + 1$



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



25. $y = -\cos \frac{1}{2}x - 2$

