

## 9-4 Circular Functions

Name: \_\_\_\_\_

Time Start: \_\_\_\_\_ Finish: \_\_\_\_\_ Total Time = \_\_\_\_\_

Find the values of the sine and cosine functions of an angle in standard position with measure  $\theta$  if the point with the given coordinates lies on its terminal side.

1. Coordinates (3, 4)       $\sin \theta =$  \_\_\_\_\_       $\cos \theta =$  \_\_\_\_\_
2. Coordinates (4, 3)       $\sin \theta =$  \_\_\_\_\_       $\cos \theta =$  \_\_\_\_\_
3. Coordinates (6, 8)       $\sin \theta =$  \_\_\_\_\_       $\cos \theta =$  \_\_\_\_\_
4. Coordinates (9, 12)       $\sin \theta =$  \_\_\_\_\_       $\cos \theta =$  \_\_\_\_\_

5. Find  $\sin \theta$  when  $\cos \theta = \frac{12}{13}$  and the terminal side of  $\theta$  is in the 1<sup>st</sup> quadrant.

6. Find  $\sin \theta$  when  $\cos \theta = \frac{3}{5}$  and the terminal side of  $\theta$  is in the 1<sup>st</sup> quadrant.

7. Find  $\sin \theta$  when  $\cos \theta = \frac{5}{13}$  and the terminal side of  $\theta$  is in the 1<sup>st</sup> quadrant.

8. If the  $\sin \theta = \frac{3}{4}$ , what is the  $\csc \theta$ ? \_\_\_\_\_

9. If the  $\cos \theta = \frac{3}{10}$ , what is the  $\sec \theta$ ? \_\_\_\_\_

10. If the  $\tan \theta = \frac{4}{5}$ , what is the  $\cot \theta$ ? \_\_\_\_\_

## SAT Questions

- \_\_\_\_\_ 11. Three consecutive integers are listed in increasing order. If their sum is 102, what is the second integer in the list?
- A. 28
  - B. 29
  - C. 33
  - D. 34
  - E. 35
- \_\_\_\_\_ 12. If  $n$  is a two-digit number that can be expressed as the product of two consecutive even integers, what is one possible value of  $n$ ?
- \_\_\_\_\_ 13. If  $(x - 2)^2 = 25$ , and  $x < 0$ , what is the value of  $x$ ?