5.4 Trigonometry short version

Name_____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

The point P(x, y) on the unit circle that corresponds to a real number t is given. Find the values of the indicated trigonometric function at t.

1) $\left(\frac{2}{5}, -\frac{\sqrt{21}}{5}\right)$ Find cos t. 1) _____

2) $\left(\frac{5}{7}, -\frac{2\sqrt{6}}{7}\right)$ Find csc t. 2) _____

3) $\left(-\frac{\sqrt{39}}{8}, \frac{5}{8}\right)$ Find cot t. 3) _____

Use the unit circle to find the value of the trigonometric function.

4) $\sec\frac{\pi}{6}$ 4) _____

5) $\sin\frac{\pi}{3}$ 5) _____

6) $\tan\frac{2\pi}{3}$ 6) _____

7) $\cos\frac{3\pi}{2}$ 7) _____

Solve the problem.

8) What is the domain of the sine function? 8) _____

9) What is the range of the cosine function? 9) _____

Use even and odd properties of the trigonometric functions to find the exact value of the expression.

10) $\sin\left(-\frac{\pi}{4}\right)$ 10) _____

11) $\cos(-\pi)$ 11) _____

12) $\cot\left(-\frac{\pi}{2}\right)$ 12) _____

13) $\csc\left(-\frac{\pi}{6}\right)$ 13) _____

14) $\sec\left(-\frac{\pi}{6}\right)$ 14) _____

Use periodic properties of the trigonometric functions to find the exact value of the expression.

15) $\sin\frac{11\pi}{3}$ 15) _____

16) $\cot\frac{21\pi}{4}$ 16) _____

17) $\tan 21\pi$ 17) _____

Answer Key
Testname: TRIGONOMETRY 5.4 SHORT VERSION

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

2) $-\frac{7\sqrt{6}}{12}$

3) $-\frac{\sqrt{39}}{5}$

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

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

6) $-\sqrt{3}$

7) 0

8) all real numbers

9) all real numbers from –1 to 1, inclusive

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

11) –1

12) 0

13) –2

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

15) $-\frac{\sqrt{3}}{2}$

16) 1

17) 0