

Suppose that θ is in standard position and the given point is on the terminal side of θ . Give the exact value of the indicated trig function for θ .

1) (12, 16); Find $\sin \theta$.

2) (6, 7); Find $\cot \theta$.

Find the indicated function value.

3) $\tan \theta$, given that $\cot \theta = \frac{\sqrt{11}}{6}$

Decide whether the statement is possible or impossible for an angle θ . Explain your answer!

4) $\sin \theta = 1.04$

5) $\sin \theta = 0.8$ and $\csc \theta = -0.8$

Find the value of the trigonometric function.

6) Find $\csc \theta$, given that $\sin \theta = -\frac{2}{3}$ and θ is in quadrant IV.

7) Find $\tan \theta$, given that $\sin \theta = \frac{3}{4}$ and θ is in quadrant II.

Without using a calculator, give the exact trigonometric function value.

8) $\tan 60^\circ$

9) $\csc 45^\circ$

Suppose ABC is a right triangle with sides of lengths a, b, and c and right angle at C. Find the unknown side length using the Pythagorean theorem and then find the value of the indicated trigonometric function of the given angle.

10) Find $\sin A$ when $b = 36$ and $c = 60$

11) Find $\csc A$ when $b = 8$ and $c = 17$

Find the reference angle for the given angle.

12) 239.9°

Give the exact value.

13) $\cos 150^\circ$

14) $\tan 120^\circ$

Find all values of θ , if θ is in the interval $[0, 360^\circ)$ and has the given function value.

15) $\cos \theta = -\frac{\sqrt{3}}{2}$

Solve the right triangle.

16) $a = 2.7$ m, $B = 30.7^\circ$, $C = 90^\circ$

17) $B = 26.6^\circ$, $c = 3.8$ mm, $C = 90^\circ$

Convert the degree measure to radians. Leave answer as a multiple of π .

18) 330°

Find the length of an arc intercepted by a central angle θ in a circle of radius r . Round your answer to 1 decimal place.

19) $r = 31.3$ ft; $\theta = \frac{\pi}{14}$ radians

Find the exact circular function value.

20) $\sin \frac{-2\pi}{3}$