Section 4.3 Right Triangle Trigonometry

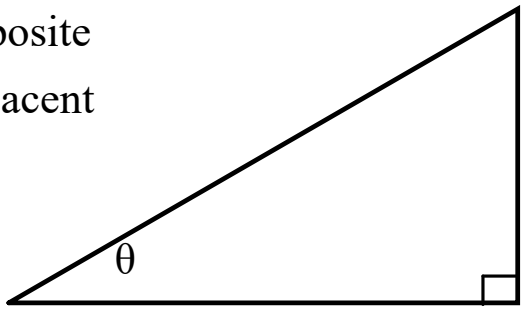
Quick Review: Label triangles & Pythagorean Theorem

$$a^2 + b^2 = c^2$$

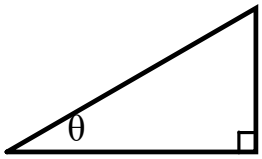
Hypotenuse

Opposite

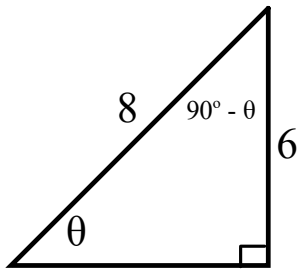
Adjacent



Six Trig functions



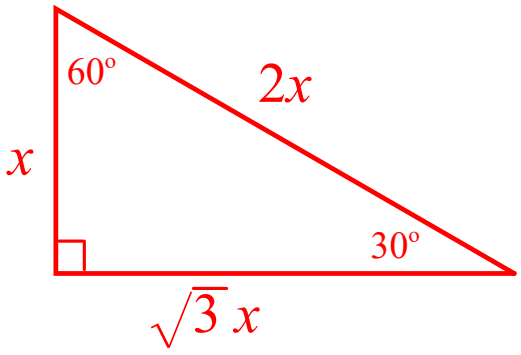
Find the value of all six trig functions

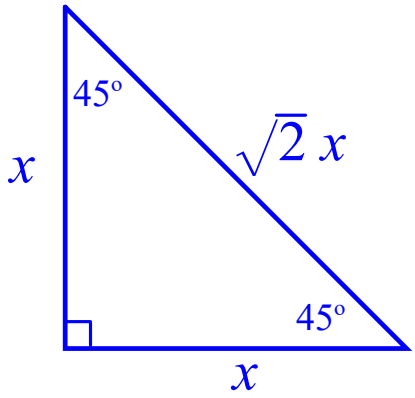


Assume that θ is an acute angle in a right triangle satisfying the given conditions. Find the remaining trig functions.

$$\csc\theta = \frac{12}{5}$$

Special right triangles





Find each value of θ in degrees ($0° < \theta < 90°$) and radians ($0 < \theta < \pi/2$) without using a calculator.

a) $\cos\theta = \sqrt{2}/2$ b) $\tan\theta = 1$ c) $\csc\theta = \sqrt{2}$

Use the given function value(s) to find the exact value of each indicated trigonometric function.

$\sin 30^\circ = \frac{1}{2}$ and $\tan 30^\circ = \sqrt{3}/3$

a) $\csc 30^\circ$

b) $\cot 60^\circ$

Use the given function value(s) to find the exact value of each indicated trigonometric function.

$\sec \theta = 5$

a) $\cos \theta$

b) $\cot \theta$

c) $\cot(90^\circ - \theta)$

d) $\sin \theta$

Evaluate without using a calculator.

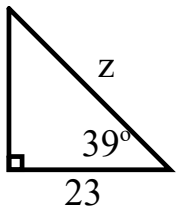
$\sec\left(\frac{\pi}{3}\right)$ $\cos\left(\frac{\pi}{6}\right)$

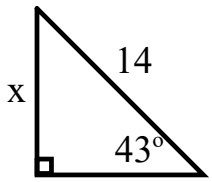
$\sin\frac{\pi}{4}$

How do you find cotθ, cscθ, secθ on the calculator?

csc 19° sec 1.24

Solve for the variable shown.





Section 4.3 Pg. 284-287

Problems: #7, 13, 15, 21, 23-28, 31, 33, 37, 39, 53, 55, 58, 66, 67, 82