

MHF 4UI

Trigonometric Functions

Day 1 - Trigonometry Reviewskis



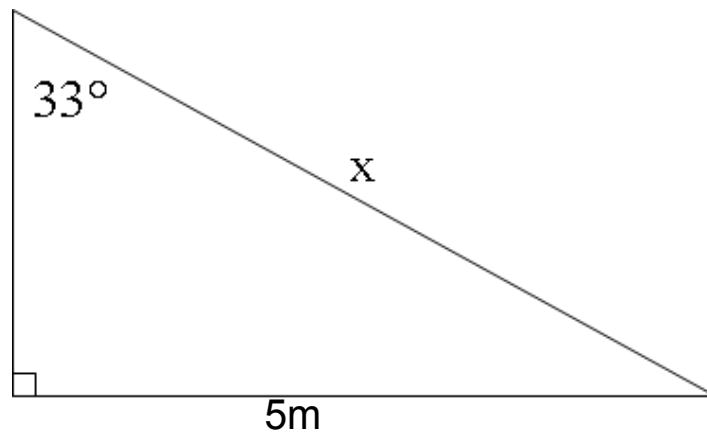
Primary Trig Ratios

$$\sin \theta = \frac{opp}{hyp} \qquad \cos \theta = \frac{adj}{hyp} \qquad \tan \theta = \frac{opp}{adj}$$

Reciprocal Trig Ratios:

$$\begin{aligned} \csc \theta &= \frac{1}{\sin \theta} \\ &= \frac{hyp}{opp} \end{aligned} \qquad \begin{aligned} \sec \theta &= \frac{1}{\cos \theta} \\ &= \frac{hyp}{adj} \end{aligned} \qquad \begin{aligned} \cot \theta &= \frac{1}{\tan \theta} \\ &= \frac{adj}{opp} \end{aligned}$$

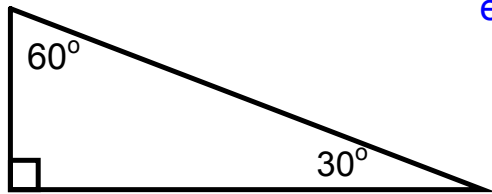
Solve for x:



a) Using sine:

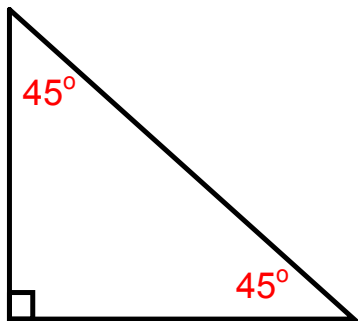
b) Using cosecant:

Special Triangles



e.g. $\tan(30^\circ) =$

$\sin(60^\circ) =$

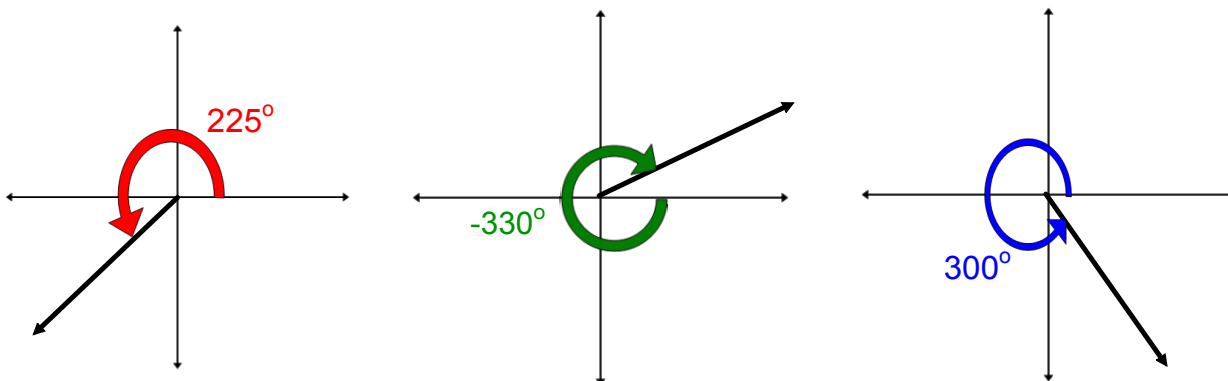


e.g. $\cos(45^\circ) =$

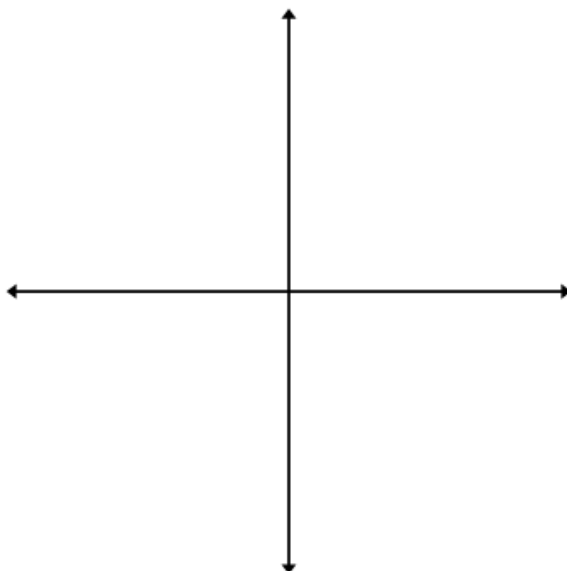
$\csc(45^\circ) =$

Related Acute Angles

Refers to the angle between and terminal arm and the X AXIS

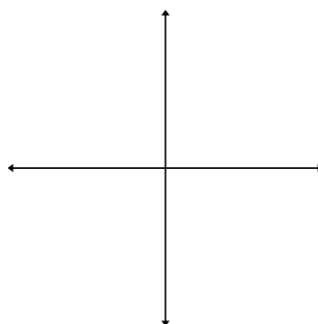


CAST Rule

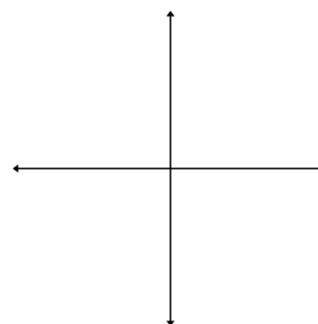


Evaluate each of the following:

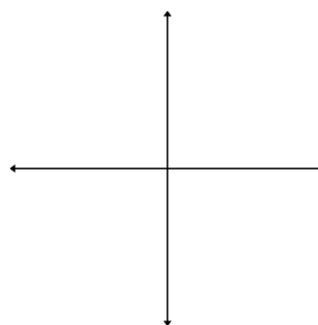
a.) $\sin(225^\circ)$



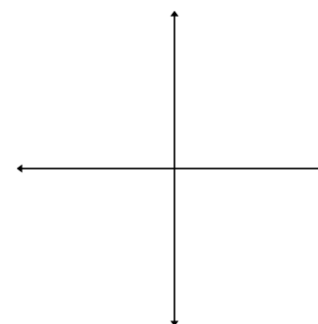
b.) $\cos(-45^\circ)$



c.) $\tan(300^\circ)$



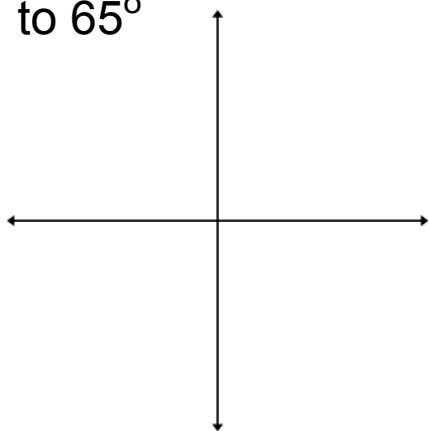
d.) $\cos(150^\circ)$



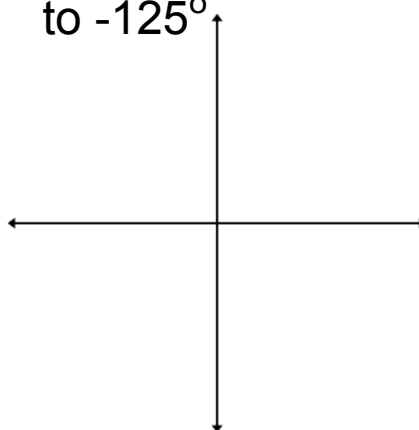
Coterminal Angles

Refers to angles where the terminal arm ends up at the same place

a. Find an angle coterminal to 65°



b. Find an angle coterminal to -125°



Evaluate $\cos(570^\circ)$:

