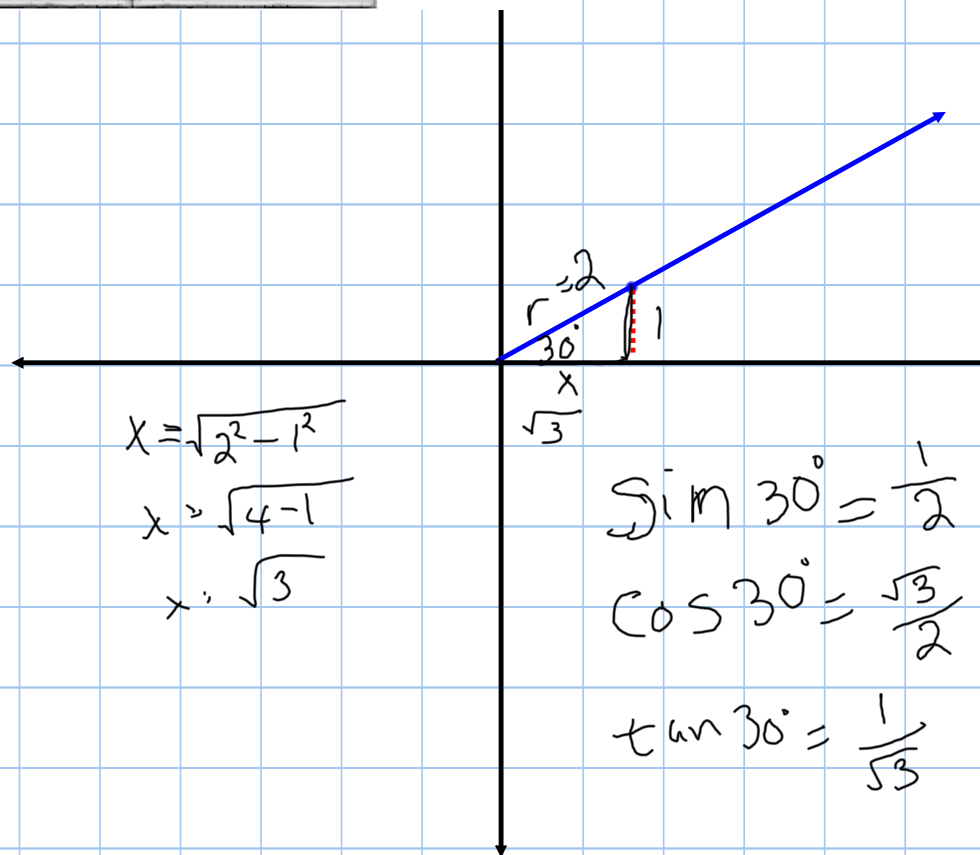
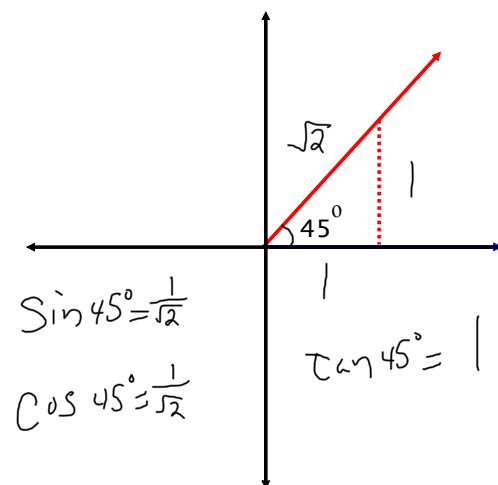
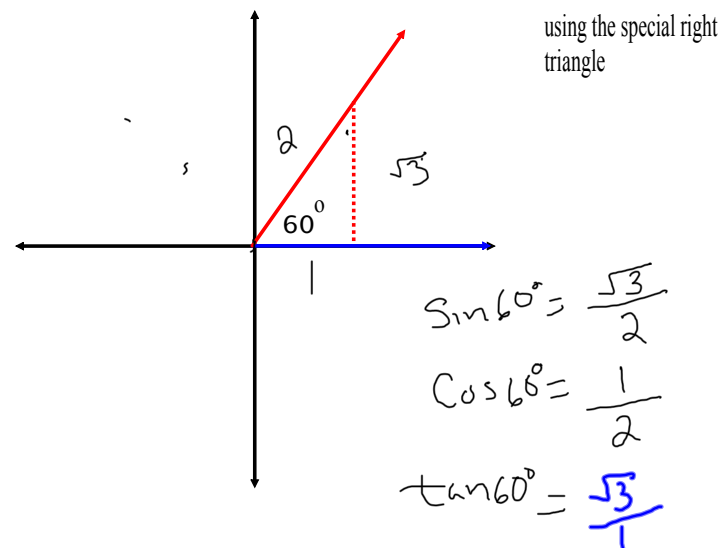


IS

using the special right
triangle



4.3 Values of the Trigonometric Functions



	the exact values			approximate values		
θ	30°	45°	60°	30°	45°	60°
$\sin\theta$	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$.500	.707	.866
$\cos\theta$	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$.866	.707	.500
$\tan\theta$	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$.577	1	1.732

chapter4section3

Using a graphing calculator to find the value of other trig functions

TAN 3 0 ENTER
tan(30
.5773502692

$$\tan 30^\circ = .57735$$

tan 26.2°

TAN 4 5 ENTER
tan(45
1

$$\tan 45^\circ =$$

COS 2 5 . 4 3 ENTER
cos(25.43
.9031105791

$$\cos 25.43^\circ =$$

The inverse trig functions

given the values find the angles

if

$$\sin \theta = n$$

then

$$\sin^{-1} n = \theta$$

arcsin

$$\sin^{-1} n$$

$$\sin^{-1}(.500)$$

$$\cos^{-1}(.707)$$

$$\tan^{-1}(1) = 45^\circ$$

The Reciprocal functions

find the values

$$\sec 23^\circ = \frac{1}{\cos 23^\circ}$$

$$\cot 42^\circ = \frac{1}{\tan 42^\circ}$$

1 ÷ cos 23 ENTER

1/cos(23
1.086360377

$$\sec 23 = (\cos(23))^{-1}$$

(cos 23) ^ (-) 1 ENTER

(cos(23)^-1
1.086360377

$$\csc 76.3^\circ = \frac{1}{\sin 76.3^\circ}$$

$$\csc \theta = 1.245$$

$$\sin \theta = \frac{1}{\csc \theta} = \frac{1}{1.245}$$

$$\sin \theta = \frac{1}{1.245}$$

$$\theta = \sin^{-1}\left(\frac{1}{1.245}\right)$$

$$53.44^\circ$$

find the function of a function

