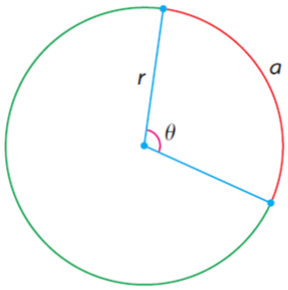
Test Review for Chapter 6

1/ Radians



a = arc length
r = radius
θ = angle measure

$$\theta = \frac{a}{r}$$

The conversion factor:

$$\pi\, rad = 180^0$$

Radians into degrees: multiply by $\frac{180}{\pi}$

Degrees into radians: multiply by $\frac{\pi}{180}$

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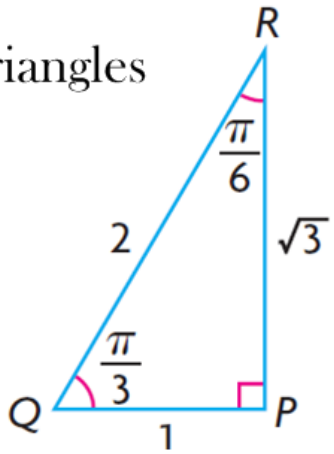
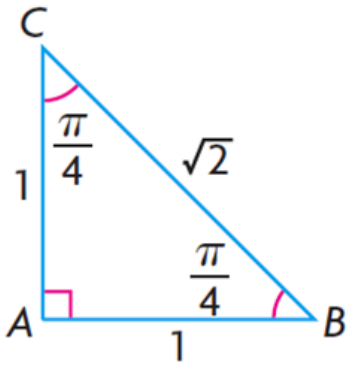
2/ CAST rule in radians

Special Triangles





EX:

$$\sin\theta = \frac{1}{\sqrt{2}}$$

$$\sec\frac{5\pi}{6} =$$

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3/ Graphing primary and reciprocal functions with transformations in radians.

$$f(x) = a\sin(k(x-d)) + c$$

$|a|$ = the vertical stretch/compression factor

$|a|$ = amplitude

$\left|\frac{1}{k}\right|$ = the horizontal stretch/compression factor

$\frac{2\pi}{|k|}$ = period

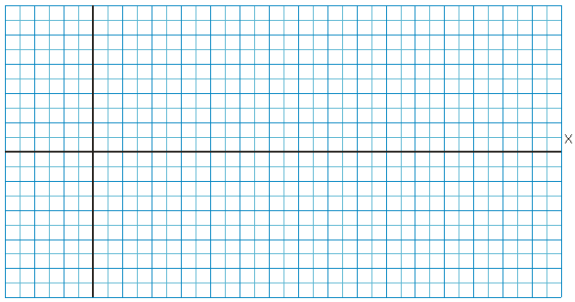
d = horizontal translation (phase shift)

c = vertical translation

$y=c$ the equation of the axis

Ex:

$y = 2\sec(0.5(x+\frac{\pi}{3})+1$



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4/ Word problems involving trigonometry and radians.

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5/ Rates of change for trig functions

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Practice

p376 - all that you need!

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