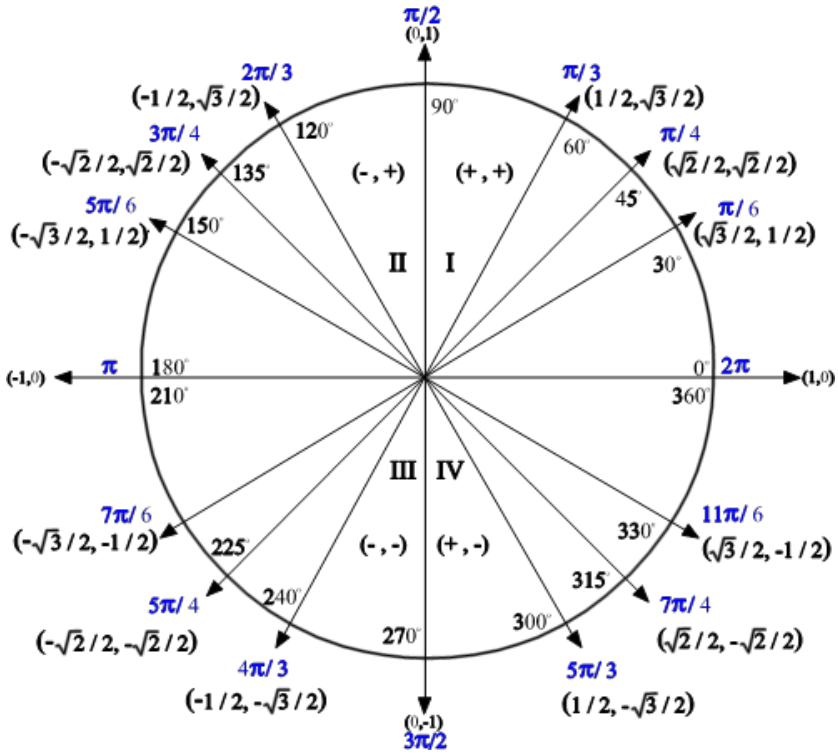

π/2
(0,1)
2π/3
(-1/2,√3/2)
π/3
(1/2,√3/2)
90°
120°
60°
3π/4
(-√2/2,√2/2)
π/4
(√2/2,√2/2)
135°
45°
(-,+)
(+,+)
5π/6
(-√3/2,1/2)
π/6
(√3/2,1/2)
150°
30°
II
I
π
180°
0°
2π
(-1,0)
(1,0)
210°
360°
III
IV
7π/6
(-√3/2,-1/2)
11π/6
(√3/2,-1/2)
225°
330°
(-,-)
(+,-)
315
5π/4
(-√2/2,-√2/2)
7π/4
(√2/2,-√2/2)
240°
300°
270°
4π/3
(-1/2,-√3/2)
5π/3
(1/2,-√3/2)
(0,-1)
3π/2

Let's Review:

- Simplifying Radicals
- Pythagoras Theorem
- Basic Trigonometric Properties

Radical Review

Simplify

$\sqrt{12}$

$\sqrt{2\cdot 2\cdot 3}$

$2\sqrt{3}$

$5\sqrt{27}$

$5\sqrt{3\cdot 3\cdot 3}$

$15\sqrt{3}$

$5\sqrt{8}+4\sqrt{18}$

$5\sqrt{2\cdot 2\cdot 2}+4\sqrt{2\cdot 3\cdot 3}$

$10\sqrt{2}+12\sqrt{2}$

$22\sqrt{2}$

Rationalizing the Denominator

$$\frac{5}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$$

$$\frac{5\sqrt{2}}{2}$$

$$\frac{8\sqrt{2}}{6\sqrt{8}} \cdot \frac{\sqrt{8}}{\sqrt{8}}$$

$$\frac{8\sqrt{16}}{6\sqrt{64}} \rightarrow \frac{32}{48} \rightarrow \frac{2}{3}$$

Think Conjugates!

$$\frac{(8-\sqrt{2})(2+\sqrt{5})}{(2-\sqrt{5})(2+\sqrt{5})}$$

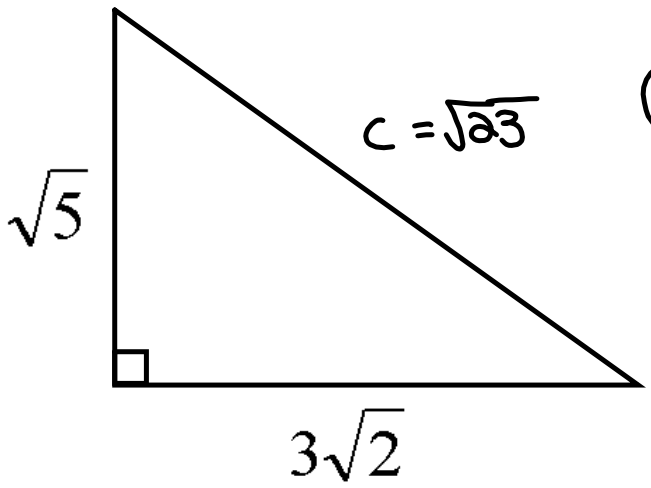
$$\frac{16+8\sqrt{5}-2\sqrt{2}-\sqrt{10}}{4+2\sqrt{5}-2\sqrt{5}-5}$$

$$\frac{16+8\sqrt{5}-2\sqrt{2}-\sqrt{10}}{-1}$$

$$\sqrt{10}+2\sqrt{2}-8\sqrt{5}-16$$

Think Pythagorean Theorem!

Determine the length of the idicated side!



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

$(\sqrt{5})^2 + (3\sqrt{2})^2 = c^2$

$\sqrt{25} + 9\sqrt{4} = c^2$

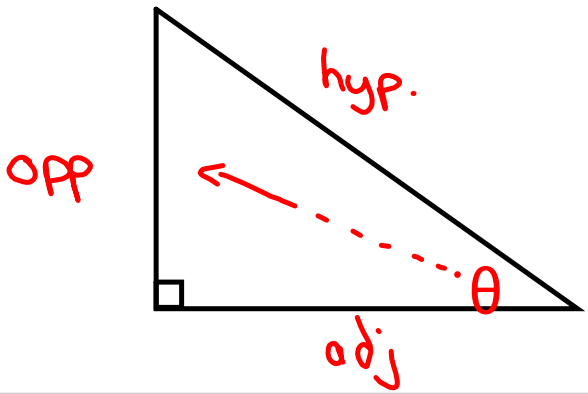
$5 + 9(2) = c^2$

$5 + 18 = c^2$

$23 = c^2$

$\sqrt{23} = c$

Trigonometric Ratios



$\sin\theta = \frac{o}{h}$	$\cos\theta = \frac{a}{h}$	$\tan\theta = \frac{o}{a}$
$\csc\theta = \frac{h}{o}$	$\sec\theta = \frac{h}{a}$	$\cot\theta = \frac{a}{o}$

Reciprocal Ratios:
- cosecant is the reciprocal of sine
- secant " " " " cosine
- cotangent " " " " tangent

Primary Ratios

Homework

Attachments

Trig&3SpaceCourseOutline.doc