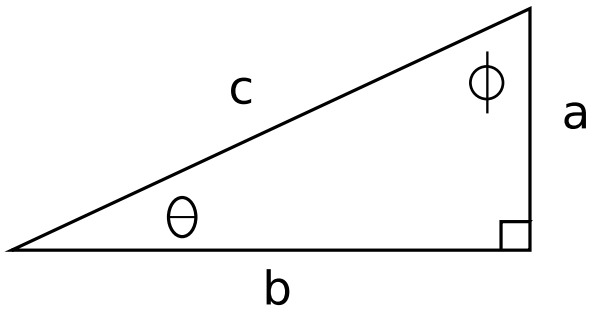
Name: _____

Trig Review Problems



Right triangle review:

Given:		**Find:**
1) $\theta = \frac{\pi}{4}$	$c = 4$	$a, b, \tan\phi$
2) $\phi = \frac{\pi}{3}$	$a = 3$	$b, c, \sin\theta, \sec\theta$
3) $a = 5$	$b = 6$	$c, \sin\theta, \tan\phi$
4) $a = x$	$b = 1$	$c, \sin\theta, \tan\phi$
5) $a = 2$	$c = 2\sqrt{3}$	$b, \cos\phi, \tan\theta$
6) $c = x$	$a = 1$	$b, \sin\theta, \sin\phi, \tan\phi$
7) $b = y$	$c = 2$	$a, \sin\phi, \cos\theta, \tan\phi$

Inverse Trig Functions:

1) $\sin^{-1}\dfrac{\sqrt{3}}{2}$

2) $\cos^{-1}\left(-\dfrac{1}{2}\right)$

3) $\tan\left(\sin^{-1}\dfrac{1}{2}\right)$

4) $\sin^{-1}\left(\sin\dfrac{5\pi}{6}\right)$

5) $\sin^{-1}(1)-\cos^{-1}\left(-\dfrac{1}{2}\right)$

6) $\cos^{-1}(\sin^{-1}0)$

7) $\tan^{-1}\sqrt{3}$

8) $\cot^{-1}(-1)$

Trig Equations:
Most of these problems reduce to evaluating an inverse trig function for a particular value which you know how to calculate, so they are somewhat repetitive.

1) $\tan x + 1 = 0$

2) $2\sin x - 1 = 0$

3) $\sqrt{3}\sin x - 2 = 0$

4) $\cot(x+1) - \sqrt{3} = 0$

5) $4\sin^2 t - 1 = 0$

6) $2\tan x - 2\cot x + 3 = 0$

7) $2\cos^2 x - 1 = 0$

8) $\sin^2 y + 2\sin y = 0$

9) $\sqrt{3}\cos x + \sin x = 0$

10) $2\sin^2 x + \sin x - 1 = 0$

11) $3\tan^2 x - 1 = 0$

12) $\sin^2 y = \sqrt{3}\sin y \cos y$