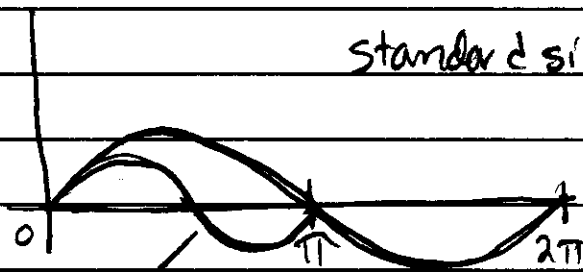


Trig 6.6 Additional Trig Graphs

$y = \sin x$

x	y
0	0
30°	1/2
45°	$\frac{\sqrt{2}}{2}$
60°	$\frac{\sqrt{3}}{2}$
90°	1

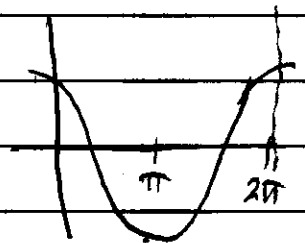
Standard sine $a=b=1$ $c=0$



$y = \sin 2x$
 $a=1$ $b=2$ $c=0$
 $T = \frac{2\pi}{|b|} = \frac{2\pi}{2} = \pi$

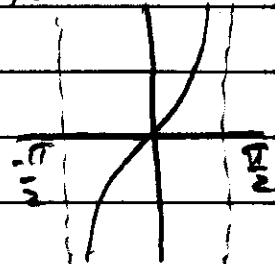
$y = \sin x$
 $a=1$ $b=1$ $c=0$ $T = \frac{2\pi}{1} = 2\pi$

Standard cosine $a=b=1$ $c=0$ $y = \cos x$



Standard tangent $a=b=1$ $c=0$ $y = \tan x$

$T = \frac{\pi}{|b|} = \pi$



EX. $y = 4 \tan(-x - \frac{\pi}{2})$, find Amp, Period, Phase, Interval & asymptotes

Sol. $a=4$ $b=-1$ $c=-\frac{\pi}{2}$

Amplitude $= a = 4$

Period $= T = \frac{\pi}{|b|} = \frac{\pi}{|-1|} = \pi$

Phase $= P = -\frac{c}{b} = -\frac{-\frac{\pi}{2}}{-1} = -\frac{\pi}{2}$

Interval $-\frac{\pi}{2} < bx + c < \frac{\pi}{2}$

$-\frac{\pi}{2} < -x - \frac{\pi}{2} < \frac{\pi}{2}$

$0 < -x < \pi$

$0 > x > -\pi$

$-\pi < x < 0$ $(-\pi, 0)$

Vertical asymptotes $x_1 = -\pi$, $x_2 = 0$

