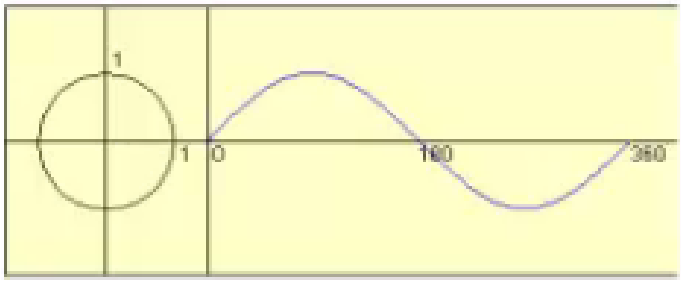
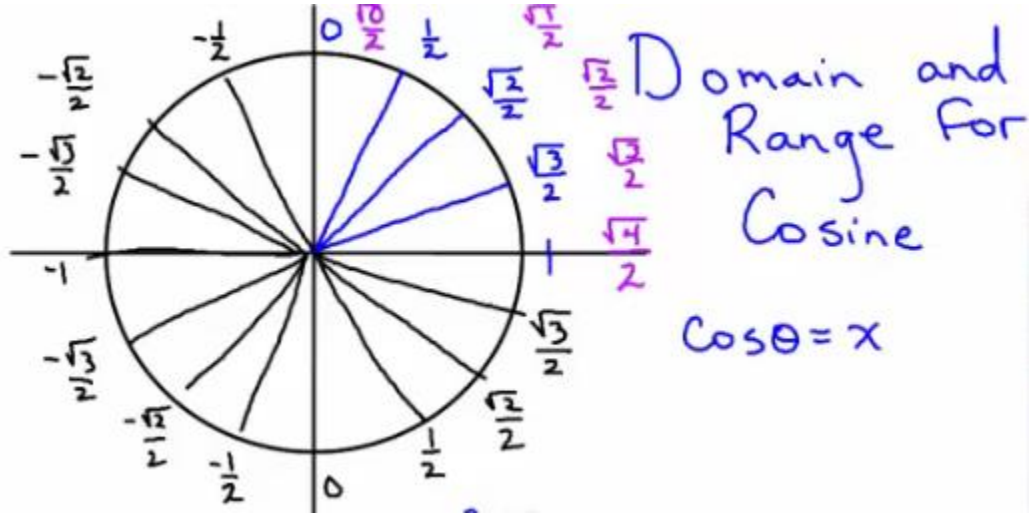
Math 140 – Pre-Calculus Name_____
Section 4.5 Video Worksheet

Graphs of Cosine and Sine

The graph of $y = \sin x$





$y = \sin x$

$y = \cos x$

$\sin x = \cos\left(x - \frac{\pi}{2} \right)$

$y = \frac{9}{5}\cos\left(\frac{\pi}{4} x \right) + 1$

Graphs of Phase Shifts

$y = A\sin\left(Bx + C \right) + D$

$y = A\cos\left(Bx + C \right) + D$

$$y = A\csc\left(Bx + C\right) + D$$

$$y = A\sec\left(Bx + C\right) + D$$

$$y = A\tan\left(Bx + C\right) + D$$

$$y = A\cot\left(Bx + C\right) + D$$

$$y = A\sin\left(wx - \phi\right) + B$$

The following data represent the average monthly temperatures (in °F) for a city in Alaska.

January, 1	25.0	April, 4	40.5	July, 7	56.2	October, 10	43.0
February, 2	28.6	May, 5	47.2	August, 8	55.2	November, 11	32.2
March, 3	32.9	June, 6	53.8	September, 9	50.2	December, 12	27.9