# Warm-Up

## March 15, 2017

Graph the trig function:

$y = 3\sin(4x - 180°) - 2$

$a=3 \quad b=4 \quad C=180° \quad d=-2$

amplitude = 3

period = 90

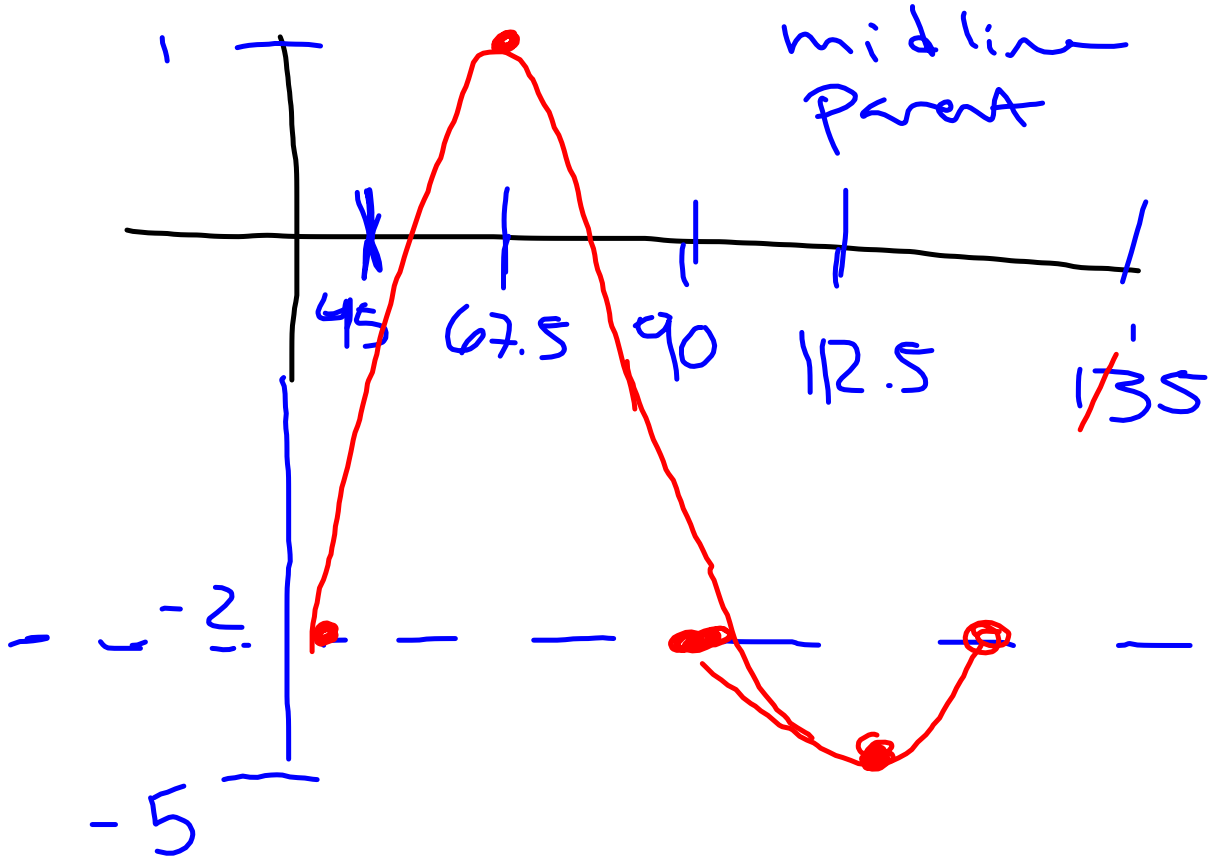
interval = 22.5

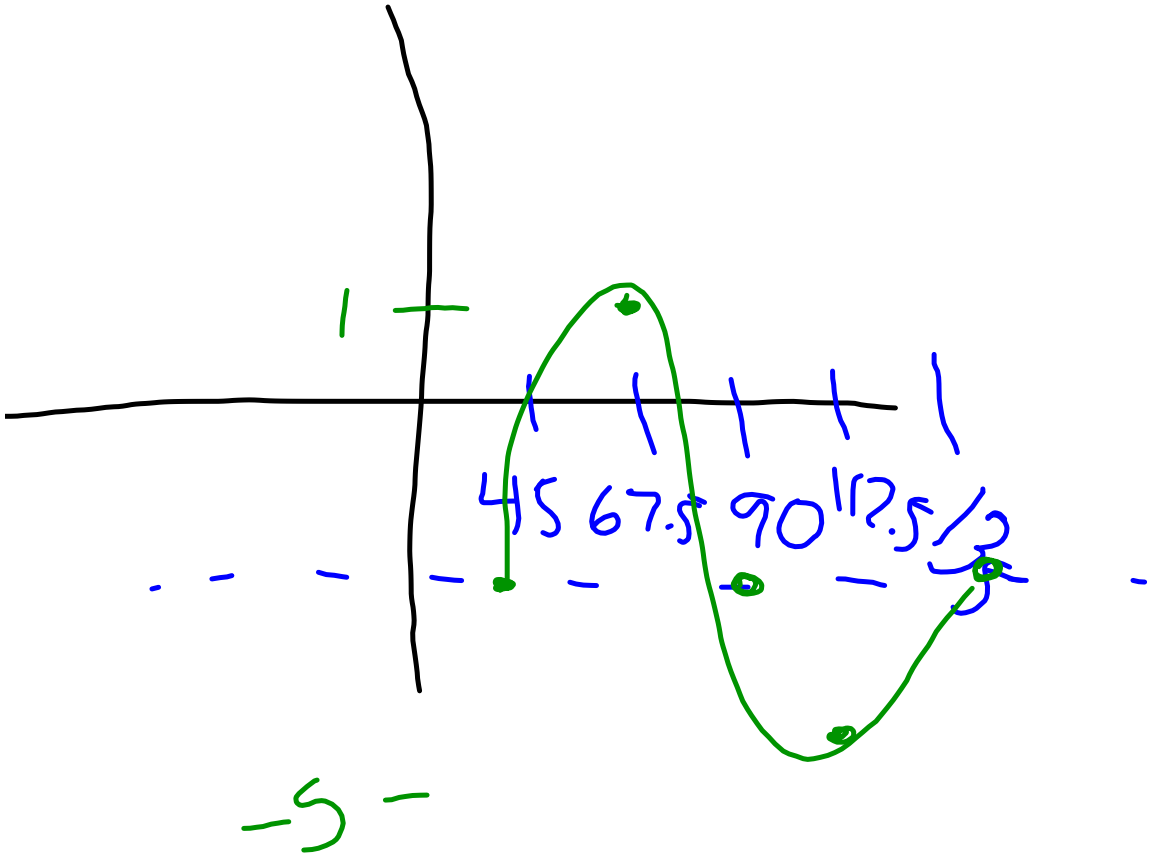
PS - 45

VT - -2 (down)

PS

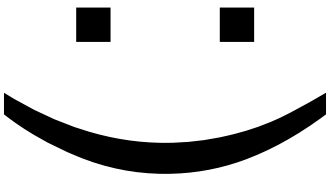
Interval
midline
Para






max : d + amp

min : d - amp



Graph.

$y = 5\cos(2x + 90°) + 1$

$a = 5 \quad b = 2 \quad c = -90 \quad d = 1$

amp = 5 per = 180°

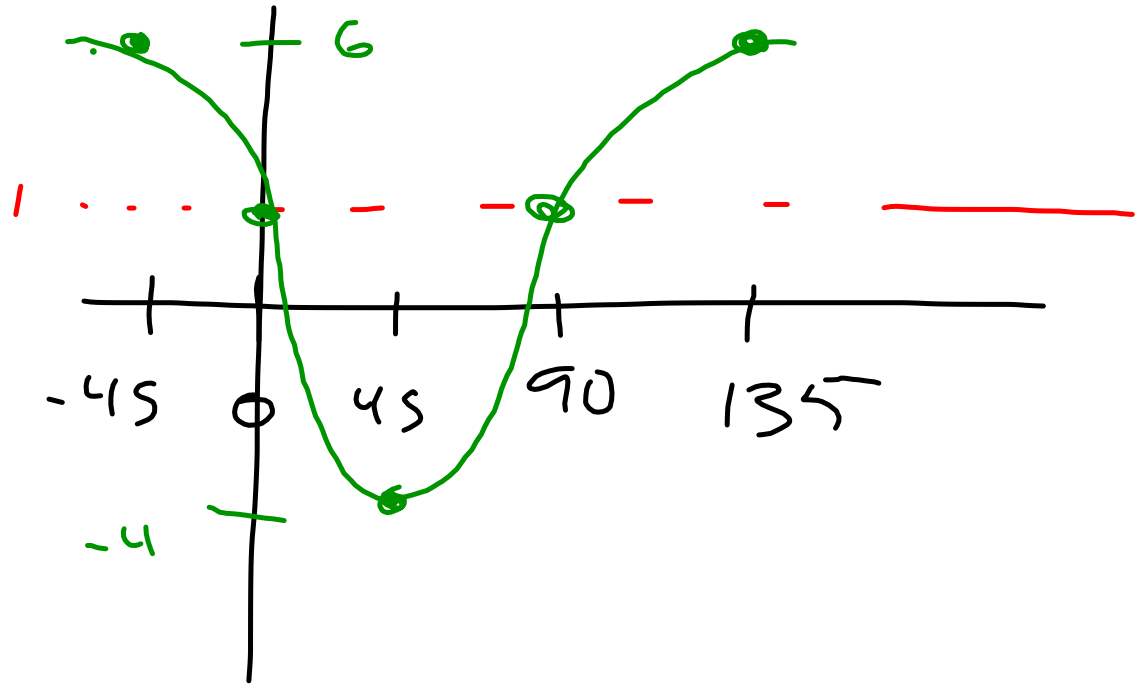
Int = 45°

$PS = -\frac{90}{2} = -45$ L

VS = 1 ↑

$Int = \frac{Per}{4} = \frac{180}{4}$

$= 45°$


6
1
-45
0
45
90
135
-4

csc sec

**Graphing Sine and Cosine**

1. Find a, b, c, and d.
2. Find amplitude and period.
3. Divide period by 4. (interval)
4. Find the PS (starting point) and VS (midline)
5. Graph

Asymptote at midline

smile at max

frown at min

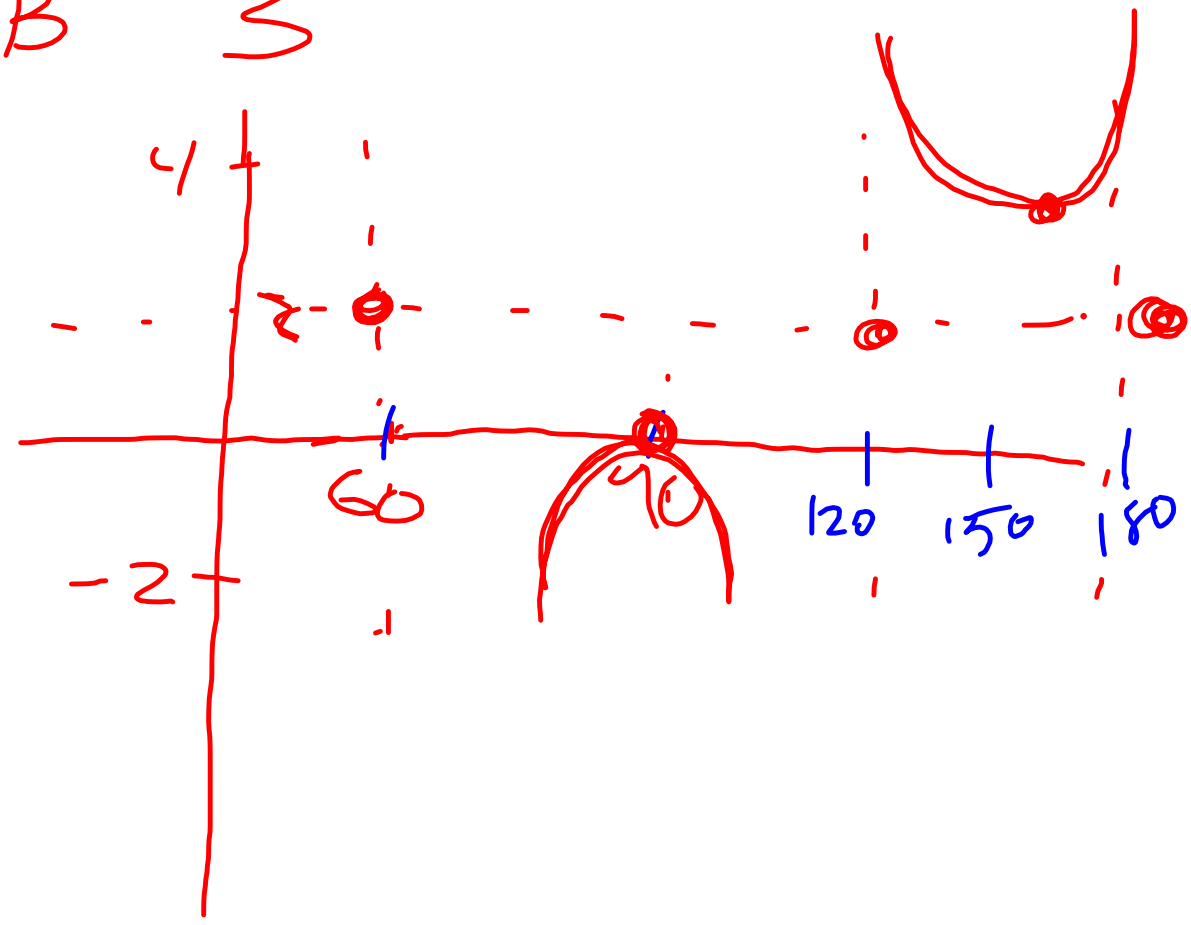
$$y = -2\csc(3x - 180^\circ) + 2$$

$A = -2 \quad B = 3 \quad C = 180 \quad D = 2$

Amp: 2 per: $\frac{360}{3} = \frac{120}{4} = 30$

int: 30

$\frac{C}{B} = \frac{180}{3} = 60$ VS: 2



$y = -4\sec(2x + 90^\circ) + 1$

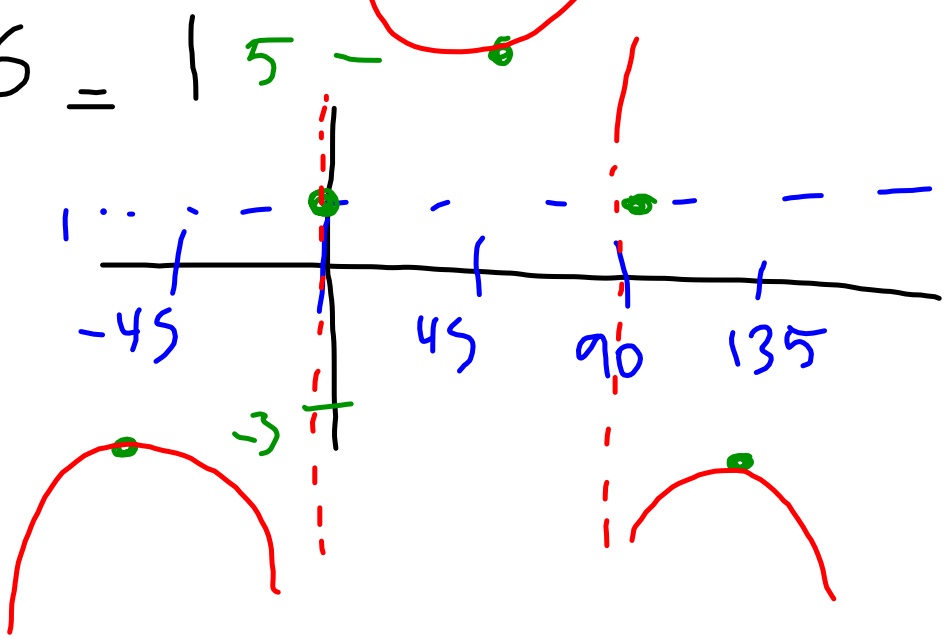
$a = -4 \quad b = 2 \quad c = -90 \quad d = 1$

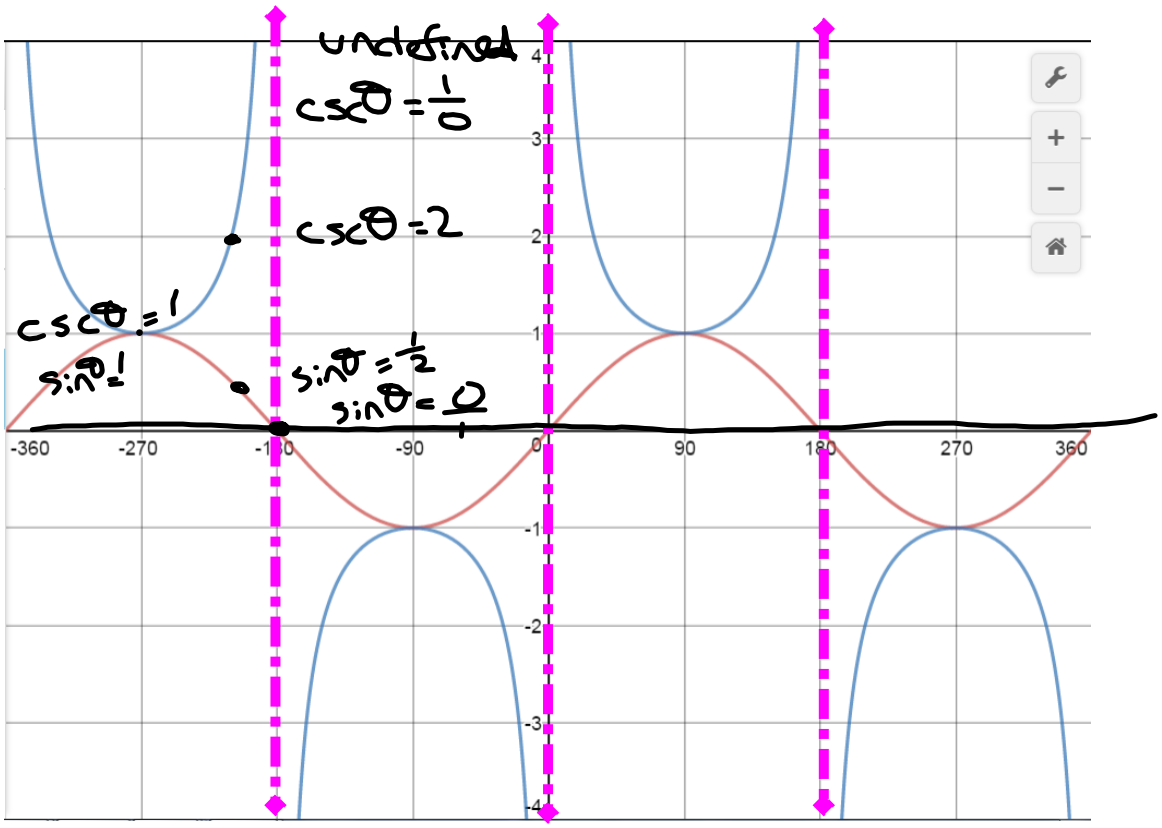
"amp = 4 $\quad per = \frac{360}{2} = 180$

$Int = \frac{Per}{4} = \frac{180}{4} = 45$

$PS = \frac{c}{b} = \frac{-90}{2} = -45$

$VS = 1$






$\sin\theta = 0$

$\csc\theta = \frac{1}{0}$

$$y = 2\csc(2x - 180^\circ) - 3$$

## Guess Who

1. Choose a partner.

2. One partner will choose a function from the  set.

3. The other partner must ask yes or no questions to eliminate the other functions until you are confident you know your partner's function.

4. Switch roles

Ticket out the door:

1. Graph.

$$y = 2\csc(x - 180°) + 2$$

2. Explain how the graphs of secant and cosecant relate to the graphs of sine and cosine.