Pre-Calculus Worksheet
#3B Cosecant and secant

Name: Key

$y = \frac{1}{2}\sec 3\left(x - \frac{\pi}{2}\right) - 5$

Per: ____

I. Fill in the chart for each function. DO NOT GRAPH. And FACTOR first when needed!

1. $y = -5\csc(2x) + 2$

Amplitude:	5
Flip?	yes
Vertical Shift:	2
Period:	$b=2 \quad P=\pi$
Phase Shift:	0

2. $y = \frac{1}{2}\sec\left(3x - \frac{\pi}{2}\right) - 5$

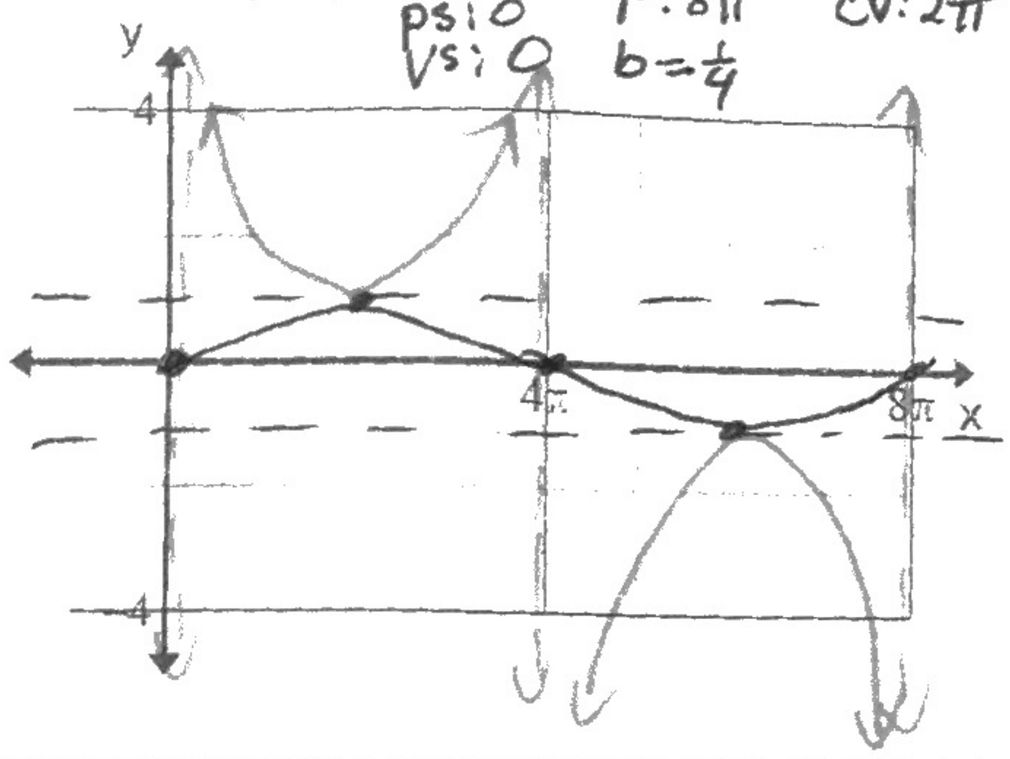
Amplitude:	$\frac{1}{2}$
Flip?	no
Vertical Shift:	
Period:	
Phase Shift:	

3. $y = -\frac{1}{5}\csc(4x + \pi)$

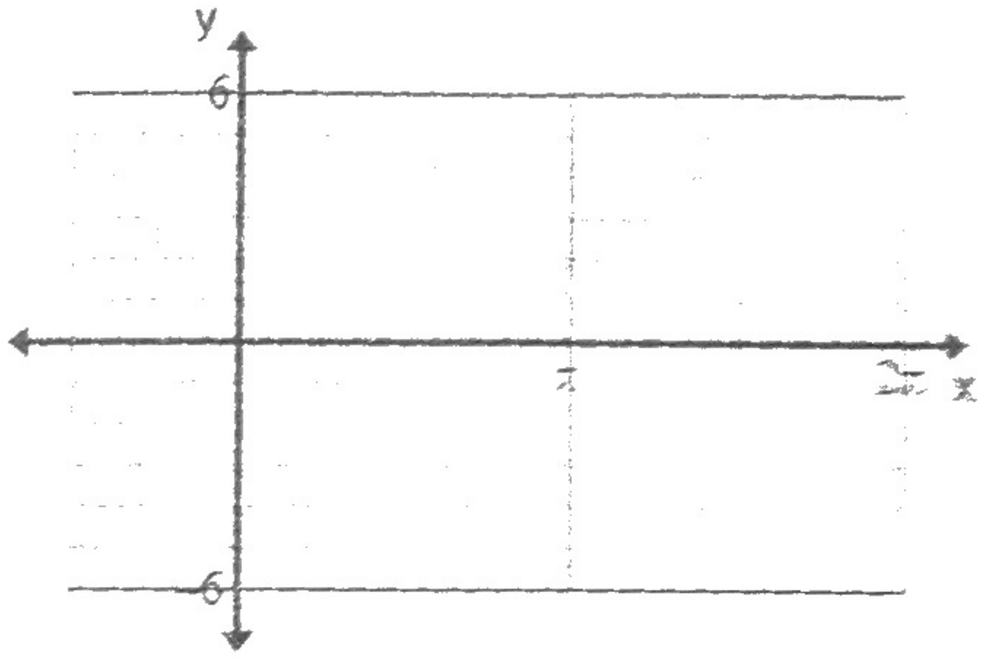
Amplitude:	
Flip?	
Vertical Shift:	
Period:	
Phase Shift:	

II. Graph each function, over one period, showing the vertical asymptotes.

4. $y = \csc\left(\frac{1}{4}x\right)$ F: NO a: 1 PS: 0 VS: 0 Think sin P: 8π CV: 2π $b = \frac{1}{4}$

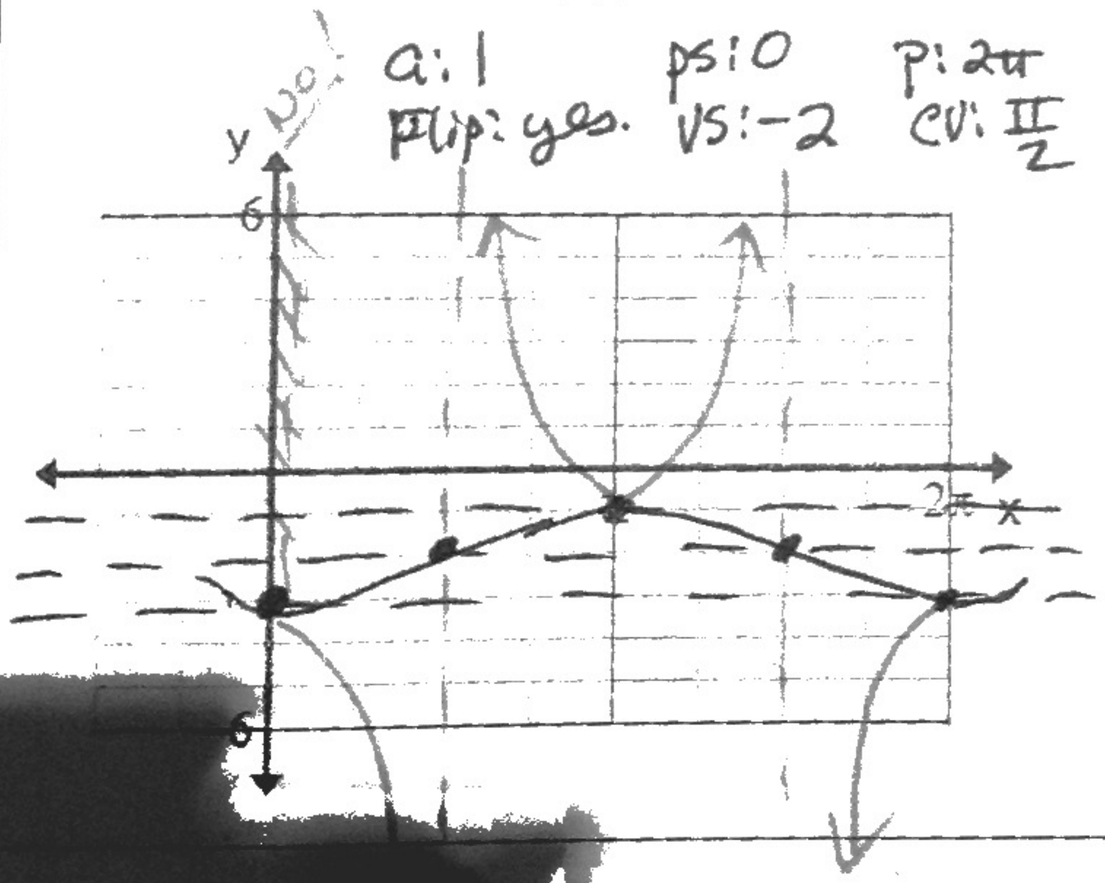


5. $y = \sec(2x) + 3$

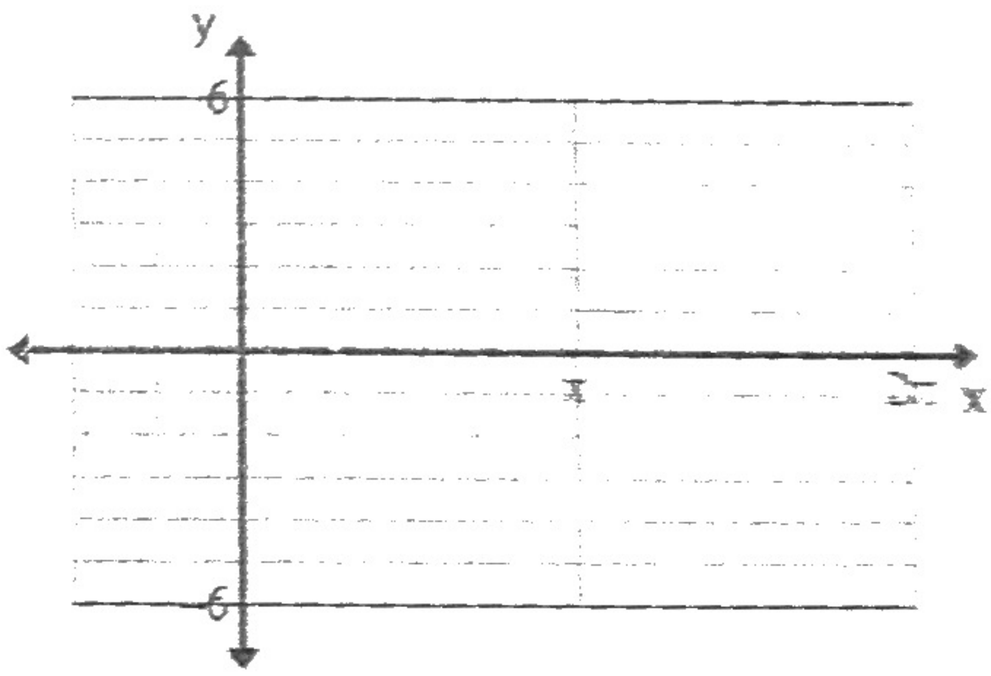


6. $y = -\sec x - 2$ Think cos

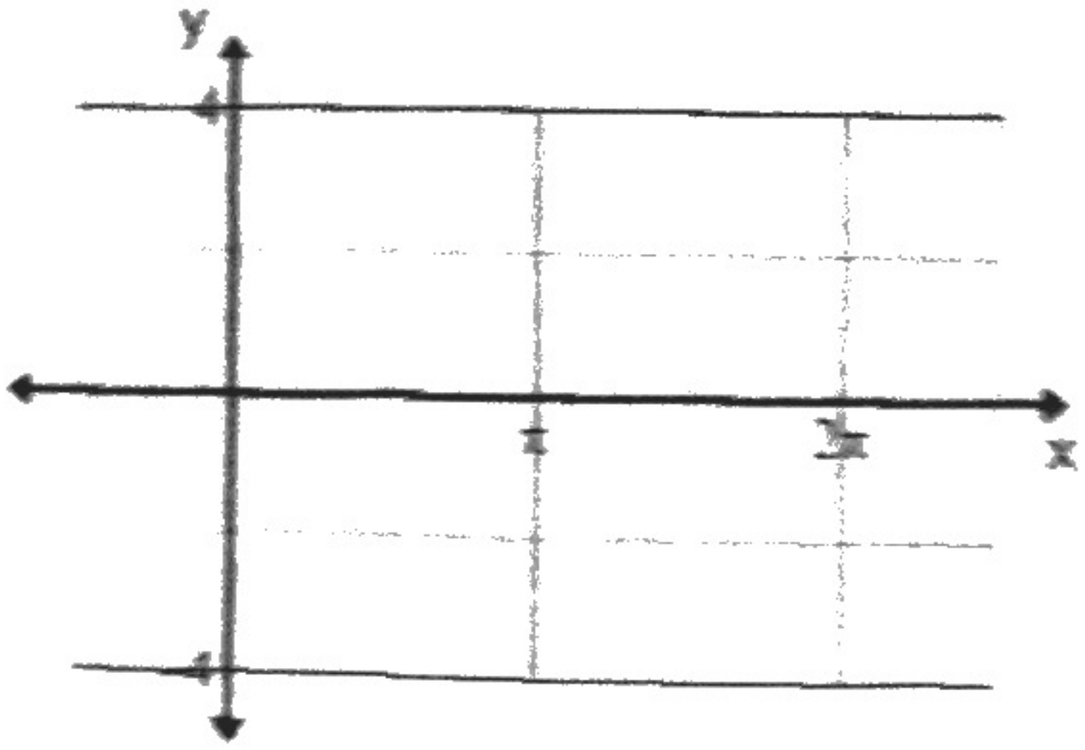
a: 1 PS: 0 P: 2π
Flip: yes. VS: -2 CV: $\frac{\pi}{2}$



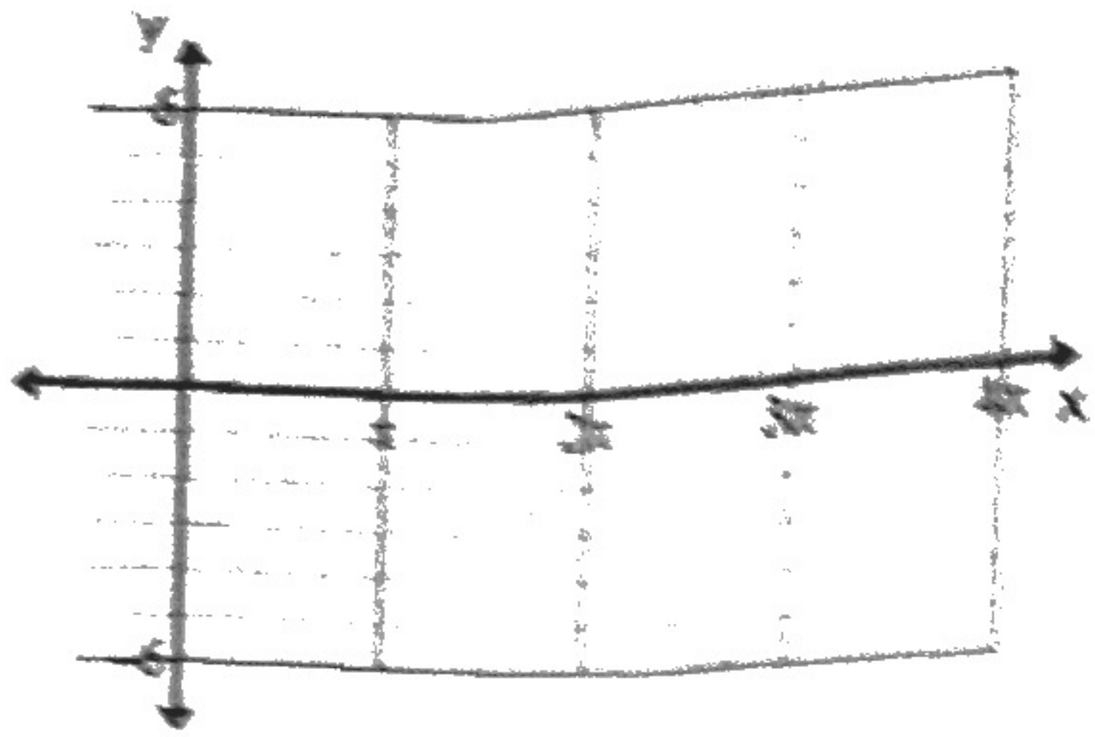
7. $y = 3\csc x + 1$



8. $y=\frac{1}{2}\csc\left(x-\frac{\pi}{4}\right)$

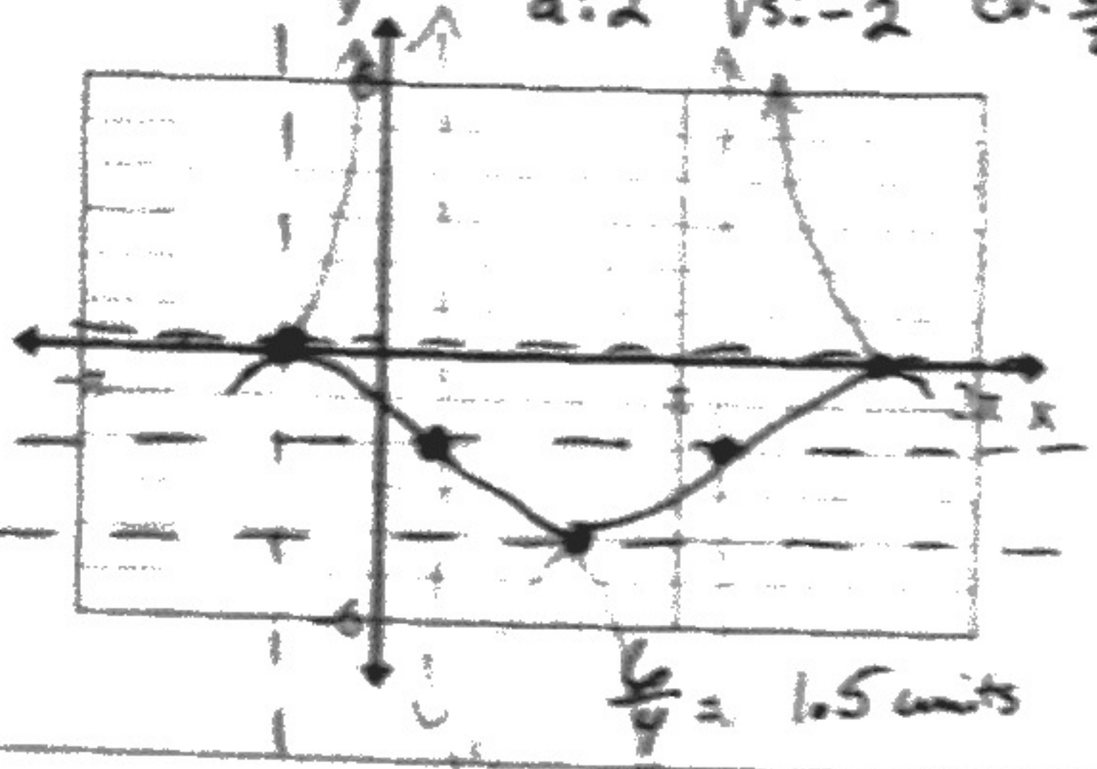


9. $y=4\sec(x-\pi)$



10. $y=2\sec\left(x+\frac{\pi}{3}\right)-2$ THINK COS

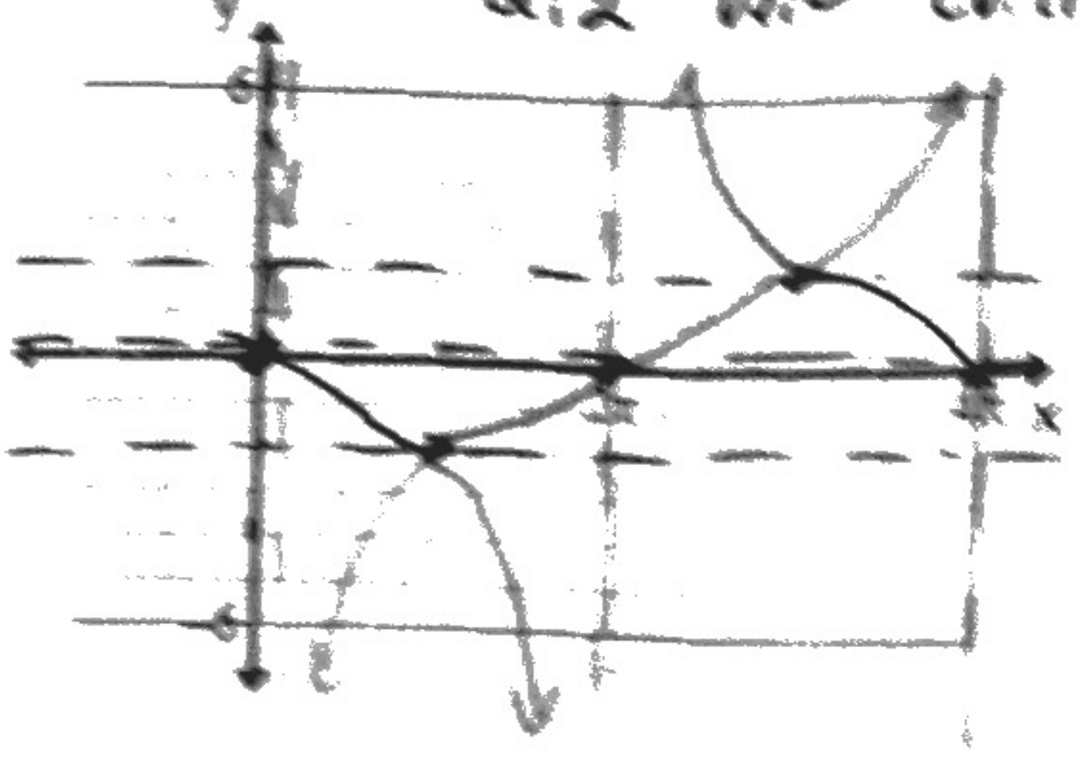
FIND PS: $-\frac{\pi}{3}$ P: 2π
a: 2 VS: -2 CU: $\frac{\pi}{2}$



$\frac{\pi}{4}$ = 1.5 units

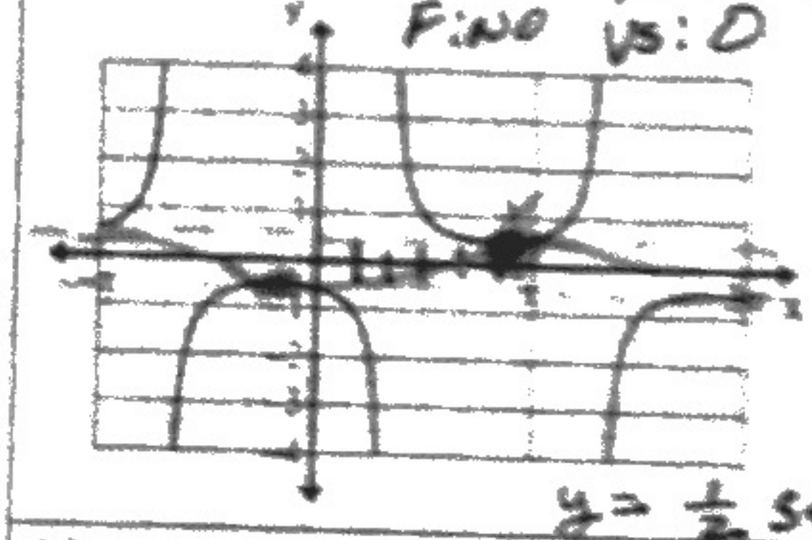
11. $y=-2\csc\left(\frac{1}{2}x\right)$ THINK SIN

F: NO PS: 0 P: 4π
a: 2 VS: 0 CU: π



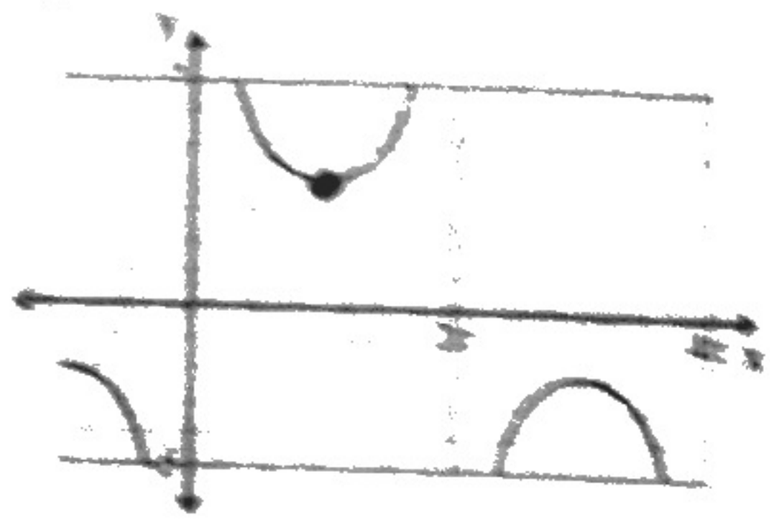
III. Write the equation for each function.

12. a: $\frac{1}{2}$ PS: $\frac{5\pi}{6}$ P: π
F: NO VS: 0 b: 2

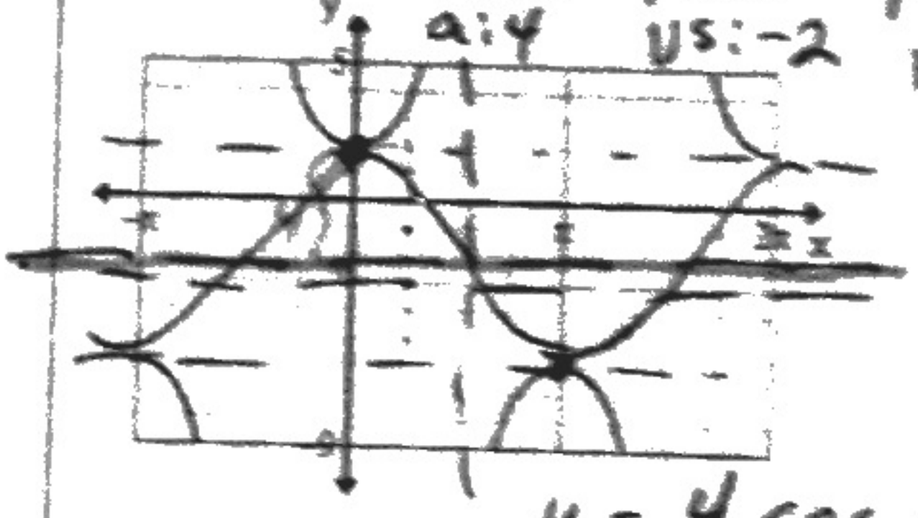


$y=\frac{1}{2}\sec 2\left(\theta-\frac{5\pi}{6}\right)$

13.



14. F: NO PS: 0 P: 2π
a: 4 VS: -2 b: 1



$y=4\sec x-2$

15.