Warm up

II. State the exact value(s).

4. $\sec\frac{\pi}{6}$	5. $\cot\frac{3\pi}{4}$	6. $\cos\frac{7\pi}{2}$	7. $\csc\frac{-7\pi}{6}$
8. $csc\frac{5\pi}{4}$	9. $\tan\frac{11\pi}{6}$	10. $cos\frac{7\pi}{3}$	11. $sin-\frac{\pi}{4}$

III. Find the value(s) of θ such that $0 \le \theta \le 2\pi$. (Use Radians)

12. $\sin\theta = -\frac{\sqrt{3}}{2}$	13. $\cos\theta = 0$	14. $\sec\theta = \frac{-2\sqrt{3}}{3}$	15. $\tan\theta = -1$
16. $\csc\theta = 2$	17. $\sin\theta = -\frac{\sqrt{2}}{2}$	18. $\cot\theta = \sqrt{3}$	19. $\cos\theta = \frac{-1}{2}$

Warm up (Answers)

II. State the exact value(s).

4. $\sec\frac{\pi}{6}$ $\frac{2\sqrt{3}}{3}$	5. $\cot\frac{3\pi}{4}$ -1	6. $\cos\frac{7\pi}{2}$ 0	7. $\csc\frac{-7\pi}{6}$ 2
8. $csc\frac{5\pi}{4}$ $-\sqrt{2}$	9. $\tan\frac{11\pi}{6}$ $-\frac{\sqrt{3}}{3}$	10. $cos\frac{7\pi}{3}$ $\frac{1}{2}$	11. $sin-\frac{\pi}{4}$ $-\frac{\sqrt{2}}{2}$

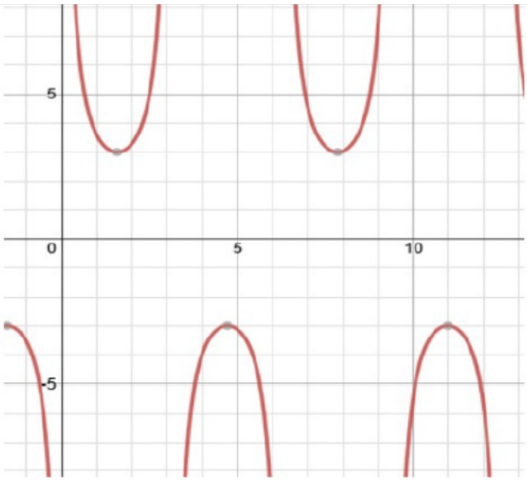
III. Find the value(s) of θ such that $0 \le \theta \le 2\pi$. (Use Radians)

12. $\sin\theta = -\frac{\sqrt{3}}{2}$ $\frac{4\pi}{3}, \frac{5\pi}{3}$	13. $\cos\theta = 0$ $\frac{\pi}{2}, \frac{3\pi}{2}$	14. $\sec\theta = \frac{-2\sqrt{3}}{3}$ $\frac{5\pi}{6}, \frac{7\pi}{6}$	15. $\tan\theta = -1$ $\frac{3\pi}{4}, \frac{7\pi}{4}$
16. $\csc\theta = 2$ $\frac{\pi}{6}, \frac{5\pi}{6}$	17. $\sin\theta = -\frac{\sqrt{2}}{2}$ $\frac{5\pi}{4}, \frac{7\pi}{4}$	18. $\cot\theta = \sqrt{3}$ $\frac{\pi}{6}, \frac{7\pi}{6}$	19. $\cos\theta = \frac{-1}{2}$ $\frac{2\pi}{3}, \frac{4\pi}{3}$

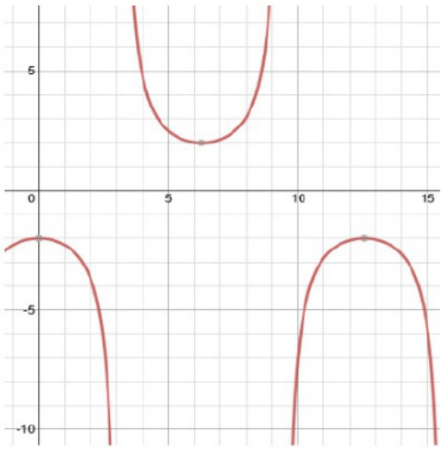
Homework

23. $y = 3 \csc x$

23. Starting with $y = \csc x$, vertically stretch by 3.



26. Starting with $y = \sec x$, horizontally stretch by 2, vertically stretch by 2, and reflect across x-axis.



26. $y = -2 \sec \frac{1}{2}x$

Practice:

1) $y = 4\csc(\theta/2 + \pi) - 1$

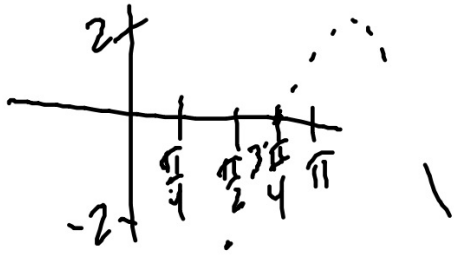
4 AMP – 4π
PER. 4π
P.S. -2π
V.S. ↓1

2) $y = -2\sec(2\theta - \pi)$ (COS)

2π π
P.S. π/2
V.S. REFLECT

3) $y = -3\csc(2\pi\theta + 3\pi/4) + 2$

$x = \frac{3\pi}{4} + \frac{\pi}{2}n$



Graph

$f(x) = \tan(\theta)$

$\frac{\pi}{b}$

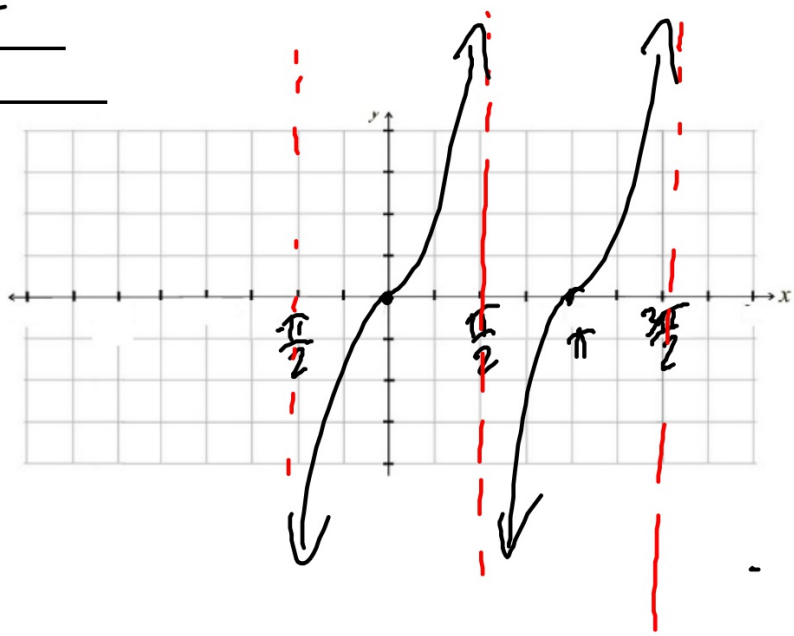
period: π

phase shift: –

reflection: –

vertical shift: –

Asymptotes: _____



8. Graph

$\frac{\pi}{b}$

$f(x) = \cot(\theta)$

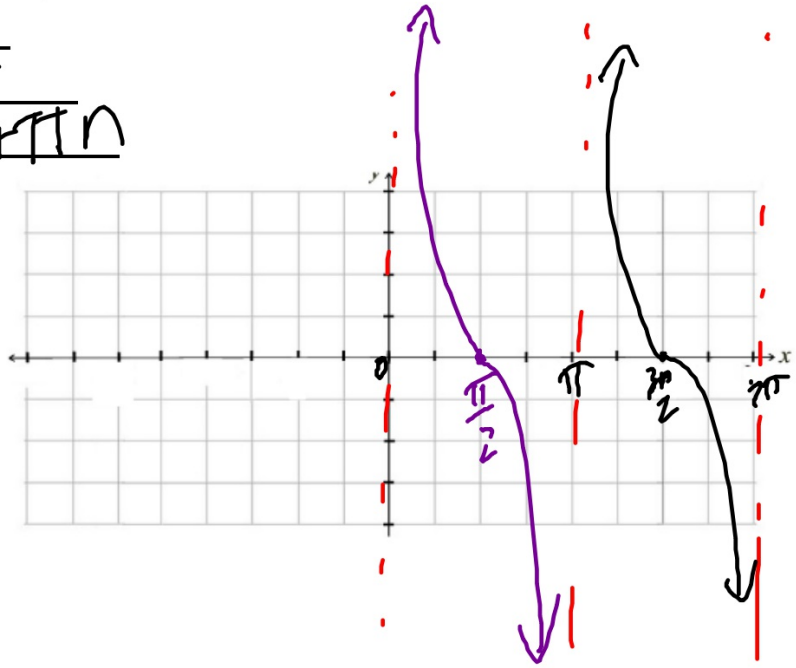
period: π

phase shift: —

reflection: —

vertical shift: —

Asymptotes: $x = 0 + \pi n$



$y = 2 \tan(2\theta) + 1$

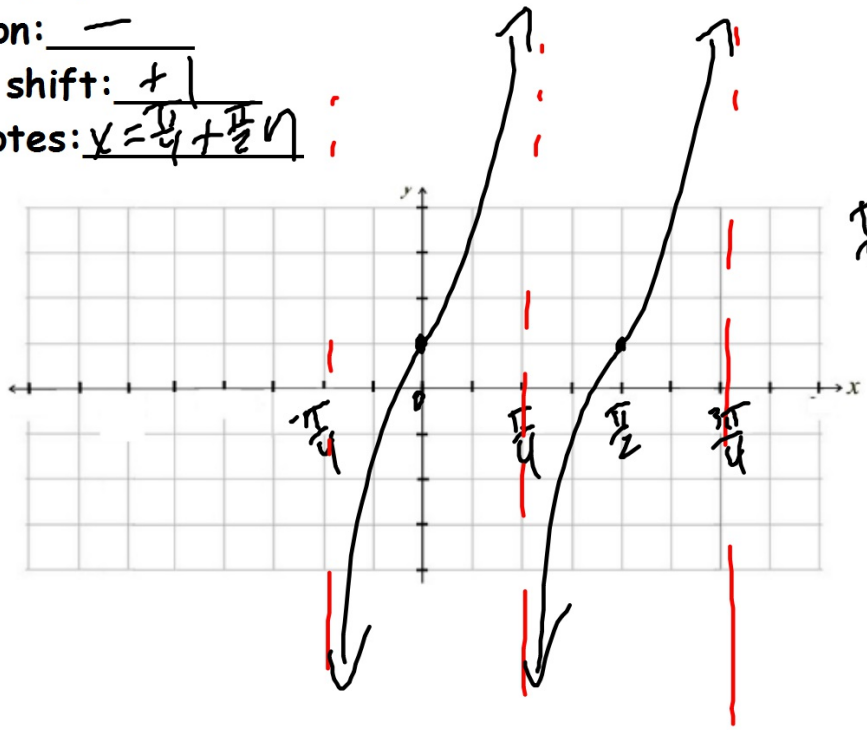
period: $\pi/2$

phase shift: —

reflection: —

vertical shift: $+1$

Asymptotes: $x = \frac{\pi}{4} + \frac{\pi}{2}n$



$\frac{\pi}{4} + \frac{\pi}{2}$

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

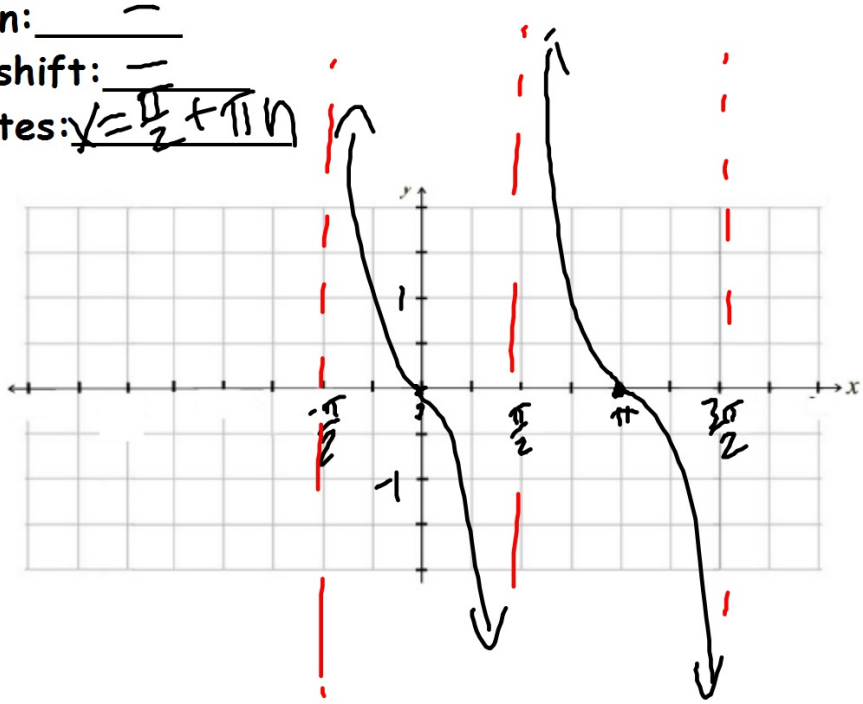
period: π

phase shift: $\pi/2$

reflection: —

vertical shift: —

Asymptotes: $x = \frac{\pi}{2} + \pi n$



$y = -3 \tan(2\theta - \pi/2) - 1$

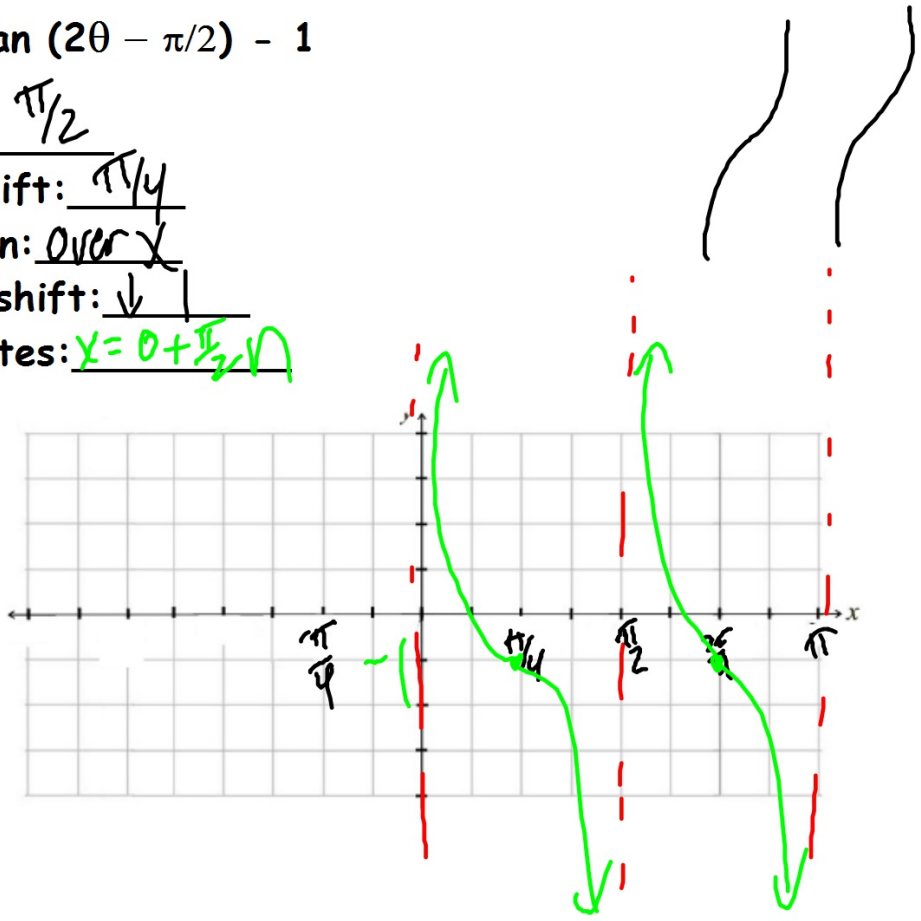
period: $\pi/2$

phase shift: $\pi/4$

reflection: over x

vertical shift: ↓ 1

Asymptotes: $x = 0 + \frac{\pi}{2}n$



$y = -\cot(\theta - \pi/4)$

period:_____
phase shift:_____
reflection:_____
vertical shift:_____
Asymptotes:_____