Name _____

HW 7-4

1. If $\tan\theta = 2.4$, find $\cot\theta$.

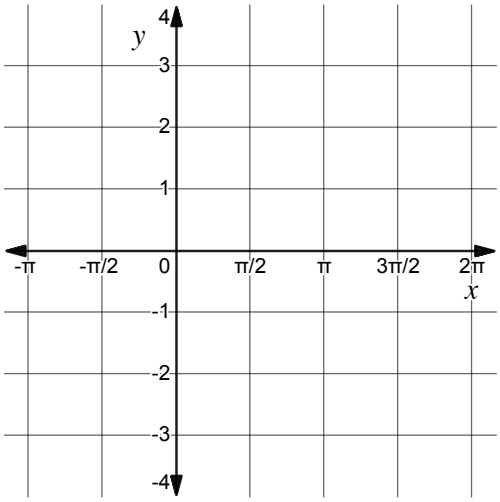
2. Identify all subinterval(s) of $[0, 2\pi]$ on which $\csc\theta < 0$.

3. Complete the table to indicate for which angles from 0 to 2π each of the six trig ratios are undefined.

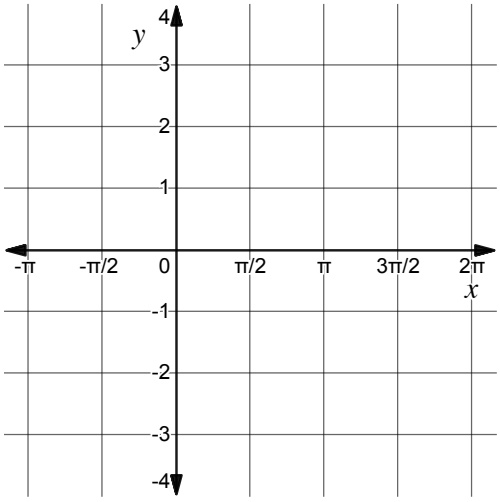
	Is undefined when $\theta =$
$\sin\theta$	N/A
$\cos\theta$	
$\tan\theta$	
$\csc\theta$	
$\sec\theta$	
$\cot\theta$	

MATH MEDIC

4. Graph $y = -\csc x$.



5. Graph $y = 2\sec x$.



6. Explain why the range of $y = \sec\theta$ is $(-\infty, -1] \cup [1, \infty)$.

7. The graph of $y = \cot(bx)$ has vertical asymptotes $x = 0, x = 6\pi, x = 12\pi, x = 18\pi, \ldots$ Find the value of b.

8. Determine the range of $f(x) = 2 + 5\sec x$.

9. Suppose the following functions are graphed in the $xy-$ coordinate plane. Which graph has x -intercepts?

A) $y = \sin x + 3$

B) $y = \csc x + 3$

C) $y = 3\sec x$

D) $y = \frac{1}{3}\csc x$

10. Let $f(\theta) = \tan\theta$ and $g(\theta) = \cot\theta$. Which of the following statements is true?

A) If $f(\theta) = 0, g(\theta) = 0$.

B) If $f(\theta) > 0, g(\theta) < 0$.

C) $f(\theta) = g(\theta)$ when $\theta = \frac{\pi}{2}$

D) $f(\theta) \cdot g(\theta) > 0$ for all θ in the domain of f and g.

11. Write an equation for the graph shown.