Math 1330
Homework 19 (5.3b)

Problem 5.3.8 refers to problem 8 in Chapter 5, Section 3 of the online text. Record your answers to all the problems in the EMCF titled "**Homework 19**."

1. Problem 5.3.8 – use the following list rather than the one in the text

   A. Shift right ½ unit
   B. Shrink (compress) horizontally
   C. Shrink (compress) vertically
   D. Shift up ½ unit
   E. None of the above

2. Problem 5.3.12 – use the following list rather than the one in the text

   A. Shrink (compress) horizontally, then shift down 4
   B. Stretch horizontally, then shift down 4
   C. Shrink (compress) horizontally, then shift left 4
   D. Stretch horizontally, then shift right 4
   E. None of the above

3. Problem 5.3.14 – use the following list rather than the one in the text

   A. Reflect about the y-axis, then shift up 2
   B. Reflect about the x-axis, then shift up 2
   C. None of the above

4. Problem 5.3.26: Find the period of the function.

   A. $\frac{\pi}{2}$ B. π C. 2π D. 4π E. $\frac{\pi}{4}$

5. Problem 5.3.26: Which of these is an asymptote of the graph? (Note restrictions.)

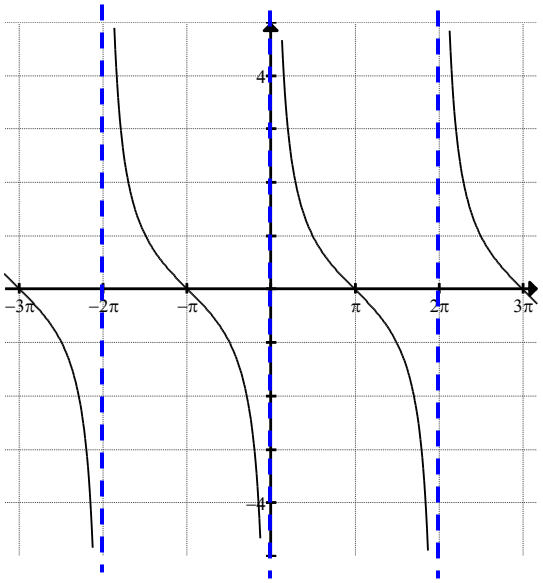
   A. $x=\frac{\pi}{3}$ B. $x=\frac{\pi}{4}$ C. $x=\frac{\pi}{6}$ D. $x=\frac{\pi}{2}$ E. $x=-\frac{\pi}{2}$

6. Problem 5.3.32 a

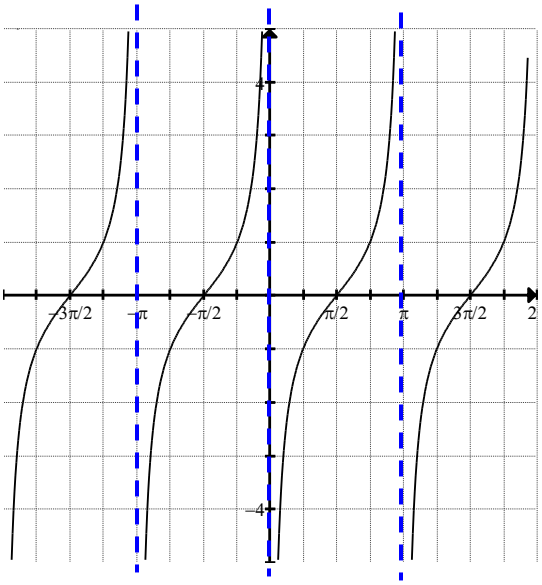
A. $\frac{\pi}{4}$ B. 2π C. 4π D. $\frac{\pi}{2}$ E. π

7. Problem 5.3.32: Which is the graph of the function?

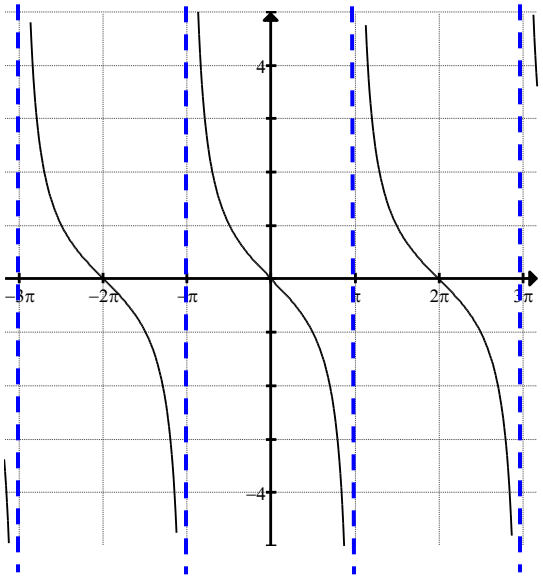
A.



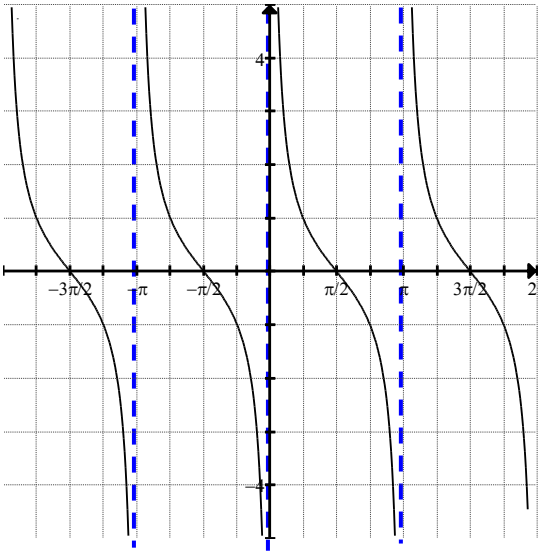
B.



C.



D.

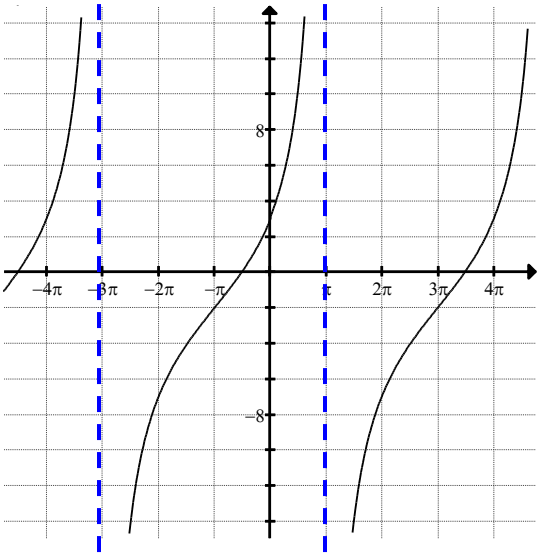


8. Problem 5.3.34 a

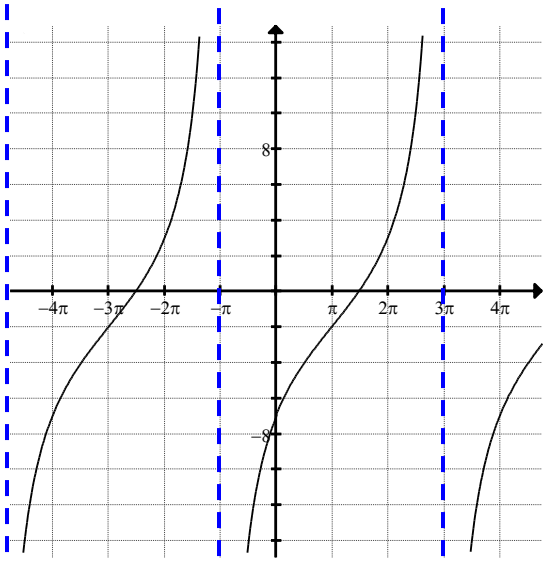
A. $\frac{\pi}{2}$ B. 2π C. $\frac{\pi}{4}$ D. 4π E. π

9. Problem 5.3.34: Which is the graph of the function? Pay attention to the scale of the graph.

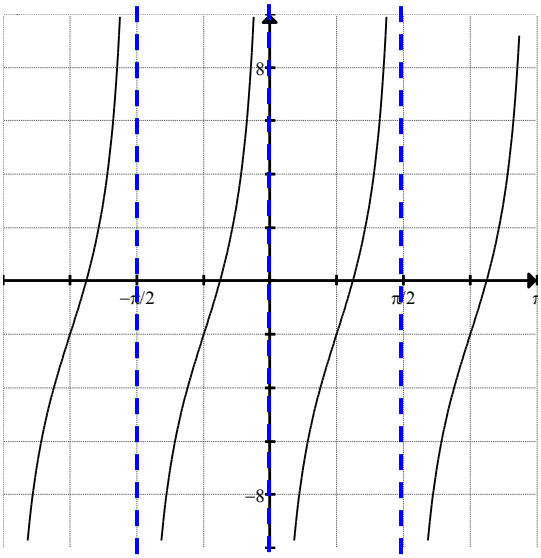
A.



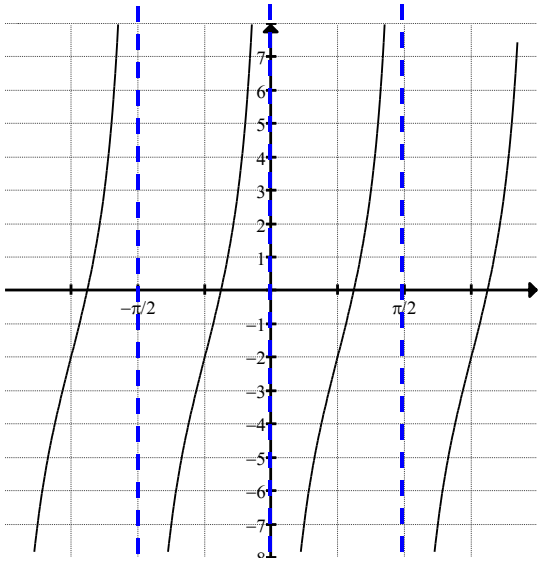
B.



C.



D.



10. Problem 5.3.60: Write an equation of the function that is graphed.

A. $f(x) = 2\tan\left(x + \frac{\pi}{2}\right) - 4$

B. $f(x) = -2\tan(x) - 4$

C. $f(x) = 2\cot(x) - 4$

D. $f(x) = 2\cot\left(x - \frac{\pi}{2}\right) - 4$

E. None of the above

11. Problem 5.3.62: Write an equation of the function that is graphed.

A. $f(x) = 4\tan\left(3\left(x + \frac{\pi}{12}\right)\right) + 2$

B. $f(x) = 2\tan\left(3\left(x + \frac{\pi}{12}\right)\right) + 4$

C. $f(x) = 4\tan\left(3\left(x - \frac{\pi}{12}\right)\right) + 2$

D. $f(x) = 2\tan\left(3\left(x - \frac{\pi}{12}\right)\right) + 4$

E. None of the above

12. The domain of $f(x) = \tan x$ is the set of all real numbers except odd multiples of $\frac{\pi}{2}$.

A. True B. False

13. The range of $f(x) = \tan x$ is the set of all real numbers.

A. True B. False

14. The graphs of $y = \tan x$, $y = \cot x$, $y = \sec x$, and $y = \csc x$ each have infinitely many vertical asymptotes.

A. True B. False

15. For what numbers x, $-2\pi \le x \le 2\pi$, does the graph of y = cot x have vertical asymptotes?

A. $-2\pi, -\pi, \pi, 2\pi$

B. $-2\pi, 0, 2\pi$

C. $\frac{-3\pi}{2}, \frac{-\pi}{2}, \frac{\pi}{2}, \frac{3\pi}{2}$

D. $-\pi, 0, \pi$

E. $-2\pi, -\pi, 0, \pi, 2\pi$