

4.5 Assignment:

Locate the vertical asymptotes, and sketch the graph of each function. (Examples 1–4)

1. $y = 2 \tan x$

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

3. $y = \cot \left(x - \frac{\pi}{6} \right)$

4. $y = -3 \tan \frac{x}{3}$

5. $y = -\frac{1}{4} \cot x$

6. $y = -\tan 3x$

7. $y = -2 \tan (6x - \pi)$

8. $y = \cot \frac{x}{2}$

9. $y = \frac{1}{5} \csc 2x$

10. $y = \csc \left(4x + \frac{7\pi}{6} \right)$

11. $y = \sec (x + \pi)$

12. $y = -2 \csc 3x$

13. $y = 4 \sec \left(x - \frac{3\pi}{4} \right)$

14. $y = \sec \left(\frac{x}{5} + \frac{\pi}{5} \right)$

15. $y = \frac{3}{2} \csc \left(x - \frac{2\pi}{3} \right)$

16. $y = -\sec \frac{x}{8}$