

Test #1 Solutions:

- | | | |
|---------------------|--------------------------|--------------------------------|
| 1. III | 10. 1 | 18. $-\frac{2}{\sqrt{29}}$ |
| 2. IV | 11. 0 | 19. $\frac{1}{\sin 20^\circ}$ |
| 3. 45° | 12. $\frac{2}{\sqrt{3}}$ | 20. $\cos 20^\circ$ |
| 4. 30° | 13. <i>undefined</i> | 21. $-\cos 20^\circ$ |
| 5. 210° | 14. $\frac{1}{\sqrt{3}}$ | 22. $+\frac{1}{\sin 20^\circ}$ |
| 6. -315° | 15. $-\frac{4}{5}$ | 23. 210π cm |
| 7. $\frac{3\pi}{4}$ | 16. $\frac{4}{3}$ | 24. $\frac{5280}{\pi}$ rev/min |
| 8. $\frac{5\pi}{2}$ | 17. $-\frac{2}{5}$ | 25. $\frac{370}{\sqrt{3}}$ ft |

22. $\sec 290^\circ$



$= \sec 70^\circ$

$= \csc 20^\circ$

$= \frac{1}{\sin 20^\circ}$

$y = a f(bx)$

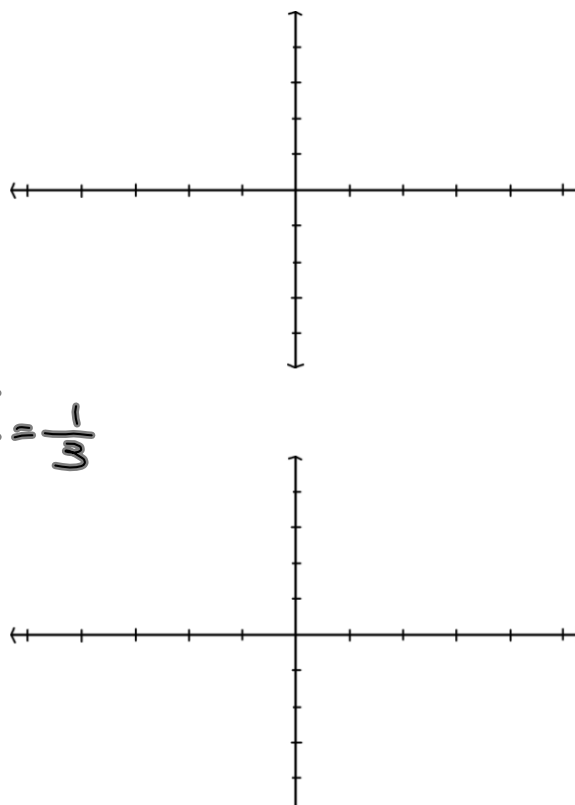
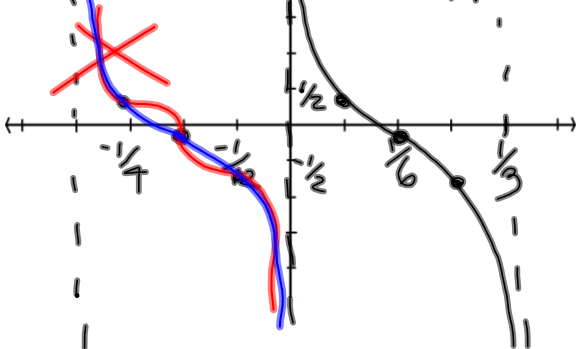
"amp": $|a|$ *tan, cot* *sin, cos, sec, csc*

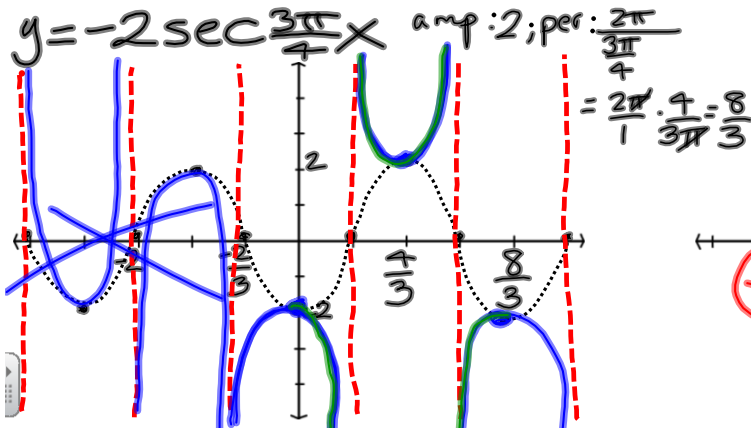
period: $\frac{\pi \text{ or } 2\pi}{|b|}$

$a < 0$ - vertical flip

$y = \frac{1}{2} \cot 3\pi x$ amp: $\frac{1}{2}$ per: $\frac{\pi}{3\pi} = \frac{1}{3}$

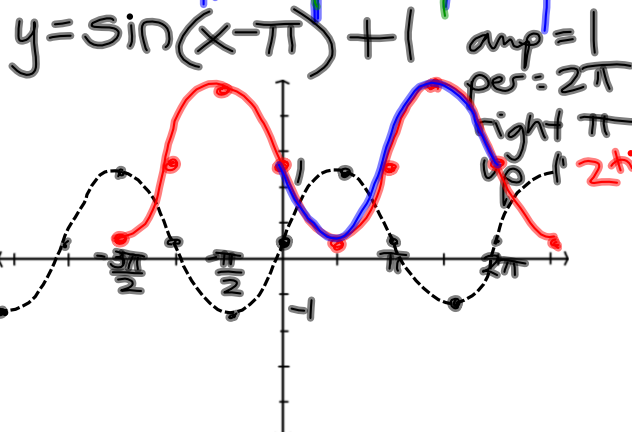
*cot has V.A. @ 0 & period



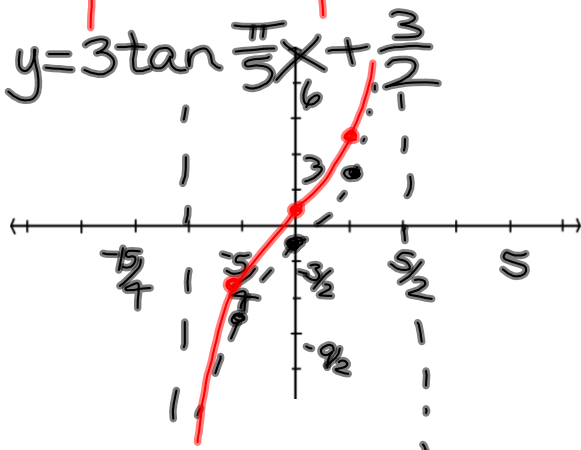
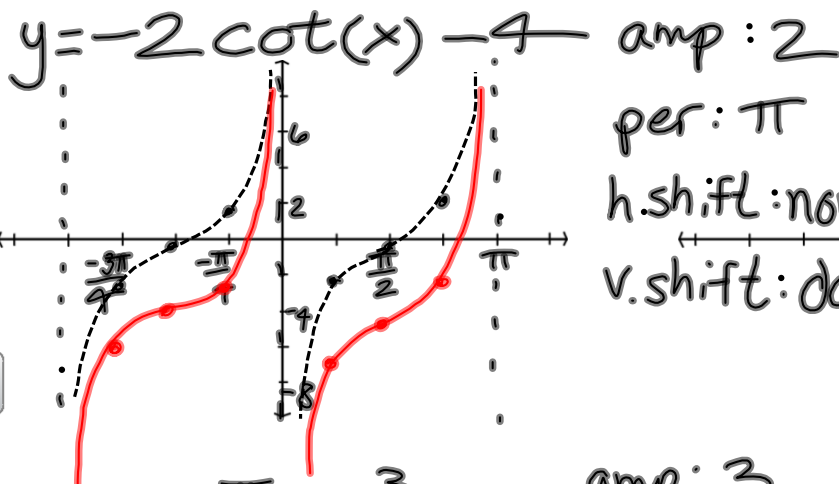


$y = af(bx)$ ✓

Goal: $y = a(f(bx+c))+d$



$y = f(x+c) + d$
 c = horizontal shift
 If $c > 0$ shift left
 $c < 0$ shift right
 d = vertical shift
 $d > 0$ up; $d < 0$ down



amp: 3
 per: $\frac{\pi}{\pi/5} = \frac{\pi \cdot 5}{\pi} = 5$
 h.shift: none
 v.shift: up $3/2$

