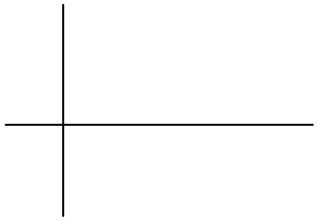
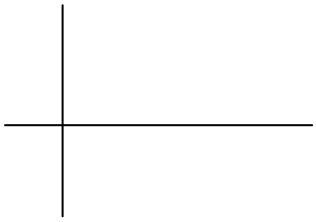
Precalculus **Name**_____
Graphs 2

Sketch the graph of each of the following functions.

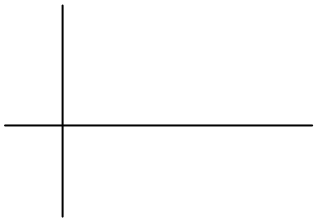
1. $y = -3\sin x$



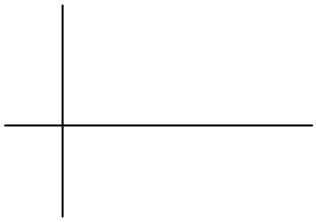
2. $y = 3\cos\frac{1}{2}x$



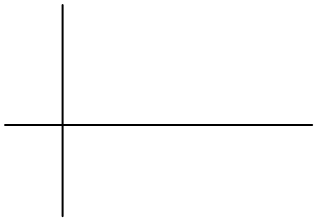
3. $y = -4\sin x + 2$



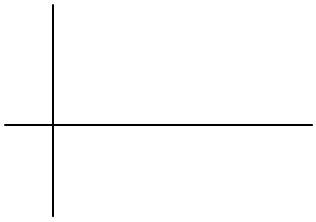
4. $y = \frac{1}{2}\cos x - 3$



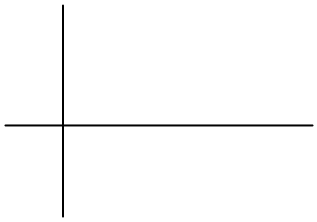
5. $y = \sin(2x - \pi)$



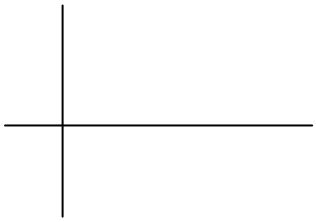
6. $y = \cos(x - \pi)$



7. $y = \frac{1}{2}\sin(2x + \pi) - 1$

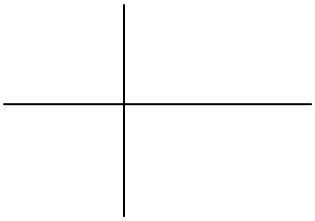


8. $y = -\cos\frac{x}{2} + 2$

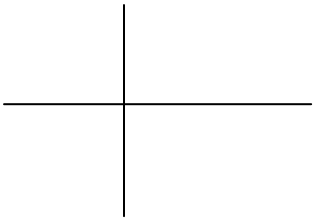


Graph each of the following showing the effects of change in amplitude, period, and vertical shift. You should find the asymptotes and key points.

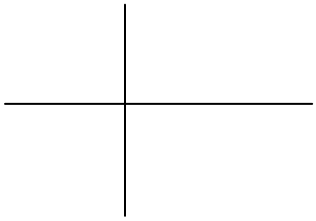
9. $y = \tan x$



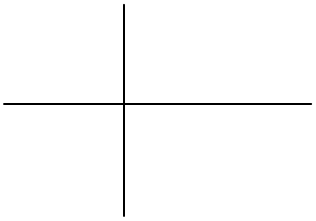
10. $y = \cot x$



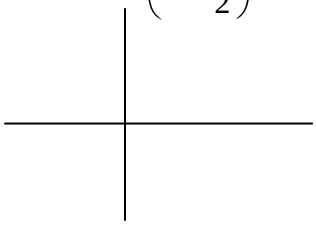
11. $y = \tan \frac{1}{4} x$



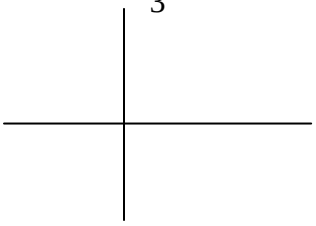
12. $y = \cot \frac{x}{2}$



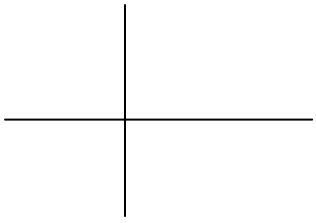
13. $y = 2\tan\left(x - \frac{\pi}{2} \right)$



14. $y = 3\cot \frac{1}{3} x$



15. $y = 4\sec 2x$



16. $y = \frac{1}{2}\csc(4x - \pi)$