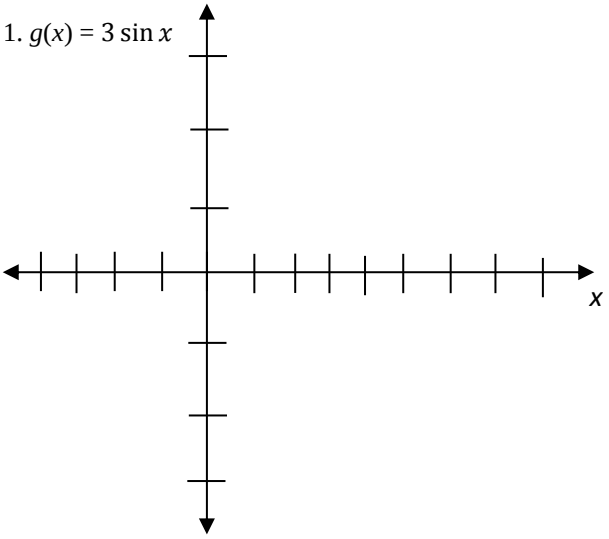
Pre-Calculus
REVIEW Section 4.4-4.5

Name _____

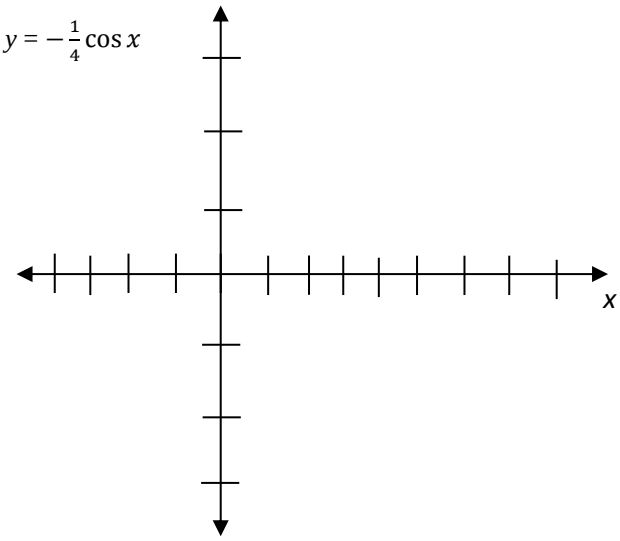
Graph one period of each function. <u>State the amplitude and period of each function.</u> <u>Describe all transformation from the parent function.</u>

1. $g(x) = 3 \sin x$



Original	*a* / *b* shift	*h* / *k* shift

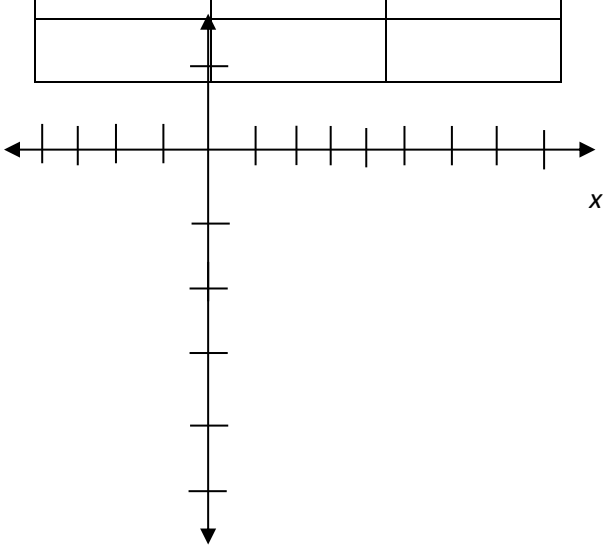
2. $y = -\frac{1}{4}\cos x$



Original	*a* / *b* shift	*h* / *k* shift

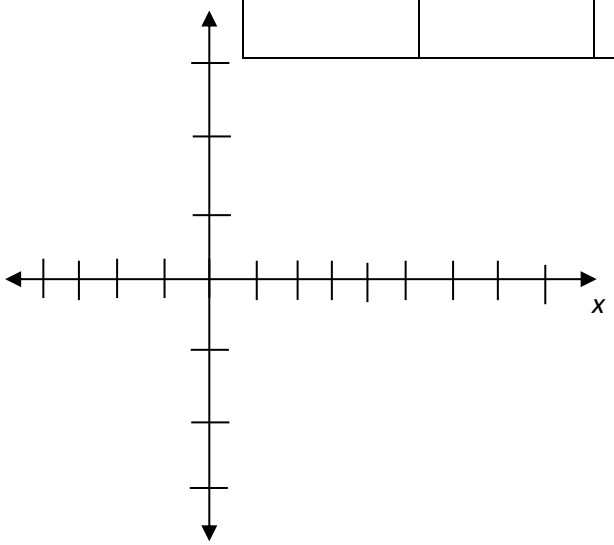
3. $f(x) = 2 \sin\left(x + \frac{\pi}{2}\right) - 3$

Original	*a* / *b* shift	*h* / *k* shift



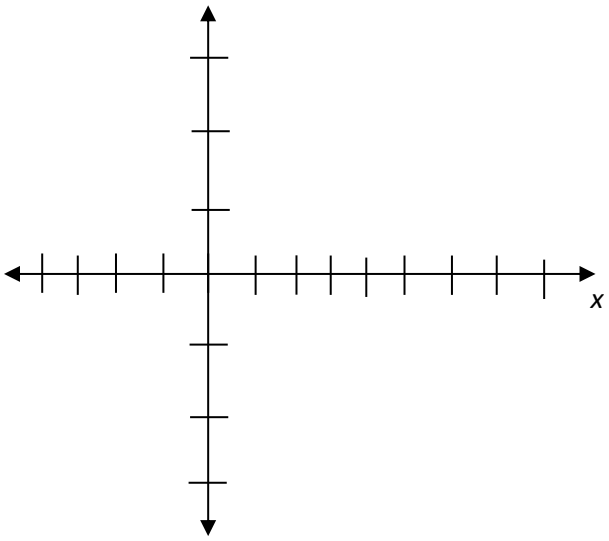
4. $y = \frac{1}{2}\cos(2x - \pi) + 2$

Original	*a* / *b* shift	*h* / *k* shift

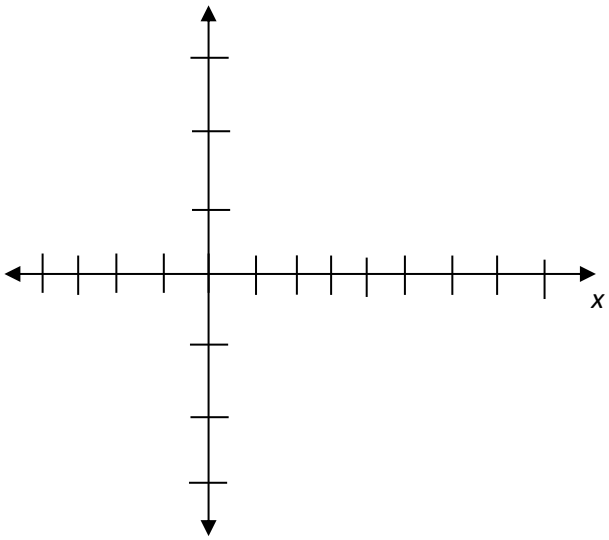


Then sketch the graph showing 2 asymptotes and the portion of the graph between the asymptotes. <u>State the amplitude, period, and vertical asymptote equations of each function.</u>

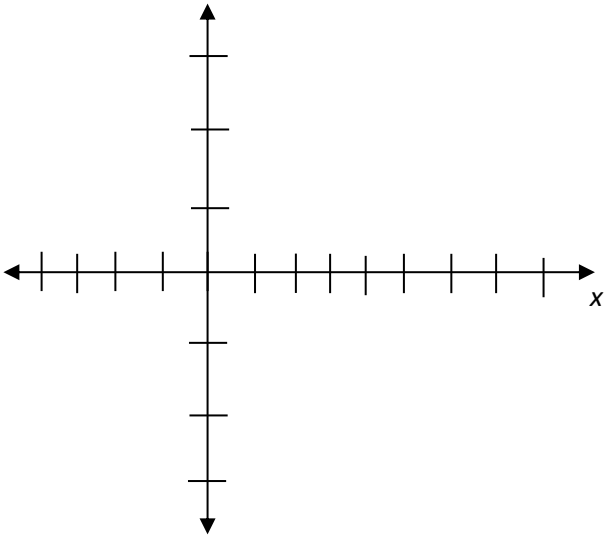
5. $y = -3\tan\left(x - \frac{\pi}{2}\right)$



6. $y = -2\cot 2x$



7. $y = \csc x - 3$



8. $y = \sec\left(\frac{x}{3} + \pi\right) - 1$