

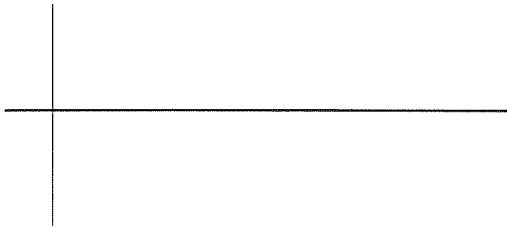
Name _____

Date _____

Practice 7.7b: Combination & Damped Graphs

1. Use the graphing calculator to sketch the graphs. Find the period of each combined function.

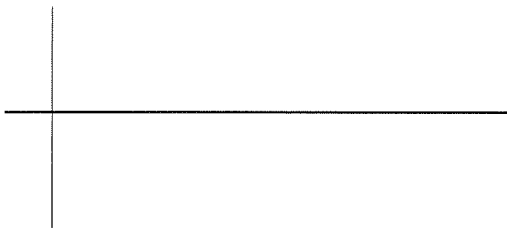
a. $y = \sin x + \cos x$



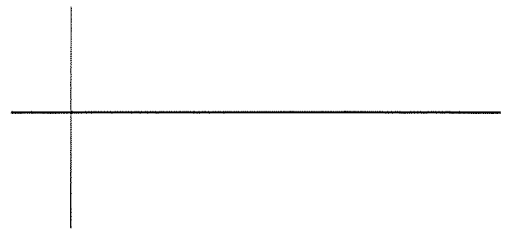
b. $y = \cos x + \cos 2x$



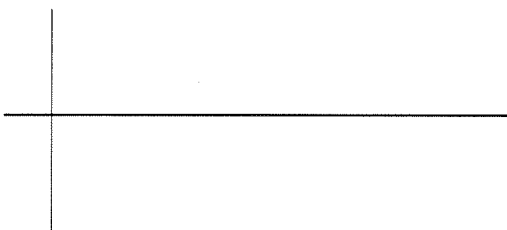
c. $y = 2\sin x + \sin 2x$



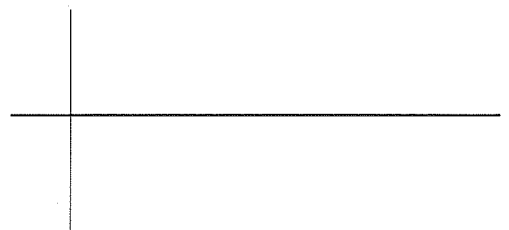
d. $y = 3\sin x + \cos 4x$



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

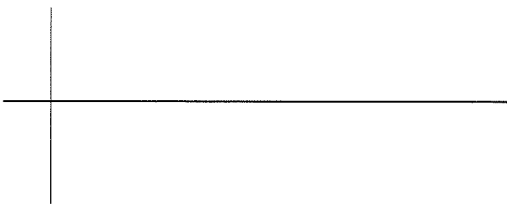


f. $y = \sin x - \frac{1}{2} \sin \frac{x}{2}$



2. Use the graphing calculator to sketch the graphs through 3 periods.

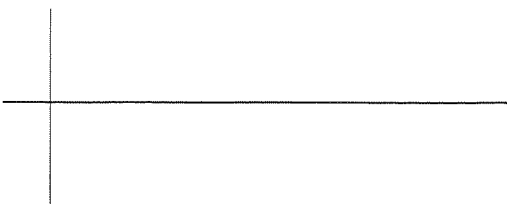
a. $y = \sin x + \frac{1}{3} \sin 5x$



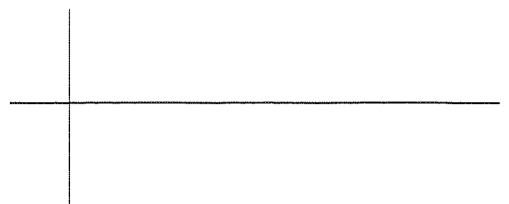
b. $y = \cos x - \frac{1}{4} \cos 2x$



c. $y = -3 + \cos x + 2\sin 2x$

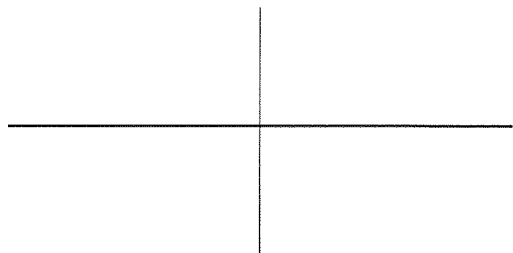


d. $y = \sin \pi x + \cos \frac{\pi x}{2}$

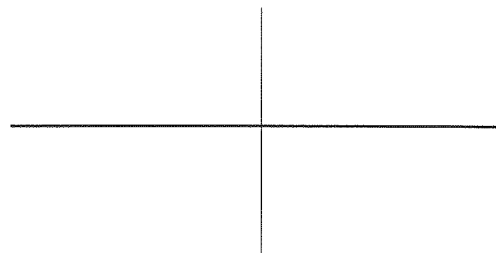


3. Use the graphing calculator to graph the combined function and the algebraic part of the function on the same axes.

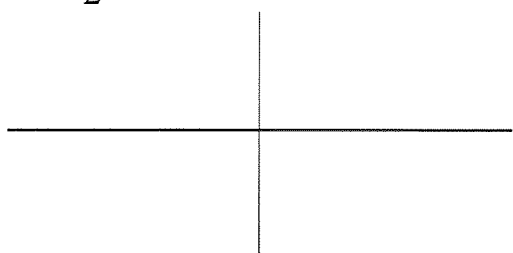
a. $y = x + \sin x$



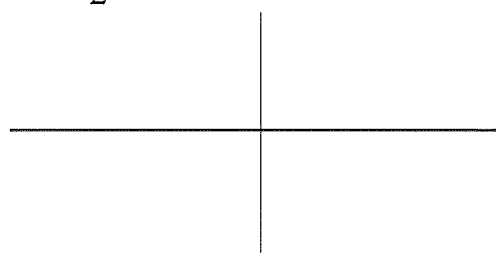
b. $y = \frac{1}{2}x - 2\cos x$



c. $y = -t + \sin \frac{\pi t}{2}$

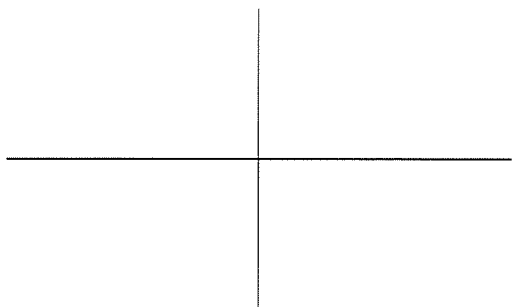


d. $y = \frac{x^2}{8} - \sin \frac{\pi x}{2}$

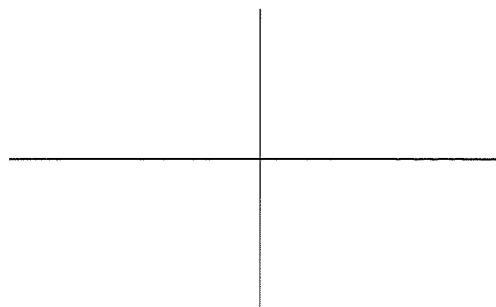


4. Use the graphing calculator to graph the combined function and the damping factor(s) on the same axes.

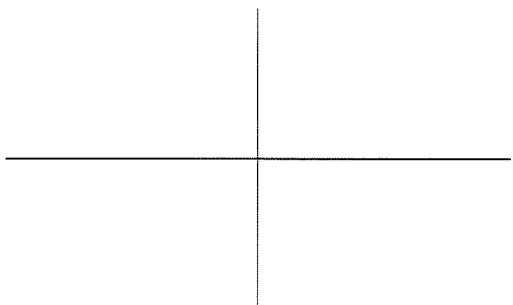
a. $y = x \cos x$



b. $y = \frac{1}{x} \sin x$



c. $y = 2^{-\frac{x}{4}} \sin \pi x$



d. $y = e^{-x} \cos x$

