

NOTES SAMPLE PROBLEMS SINE FUNCTIONS

Standard Form: $y = a \sin(bx - c) + d$

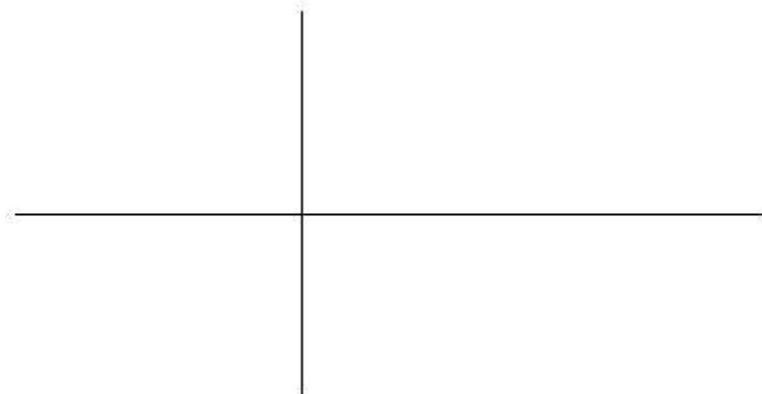
Amplitude:

Period:

Phase Shift:

Initial Interval:

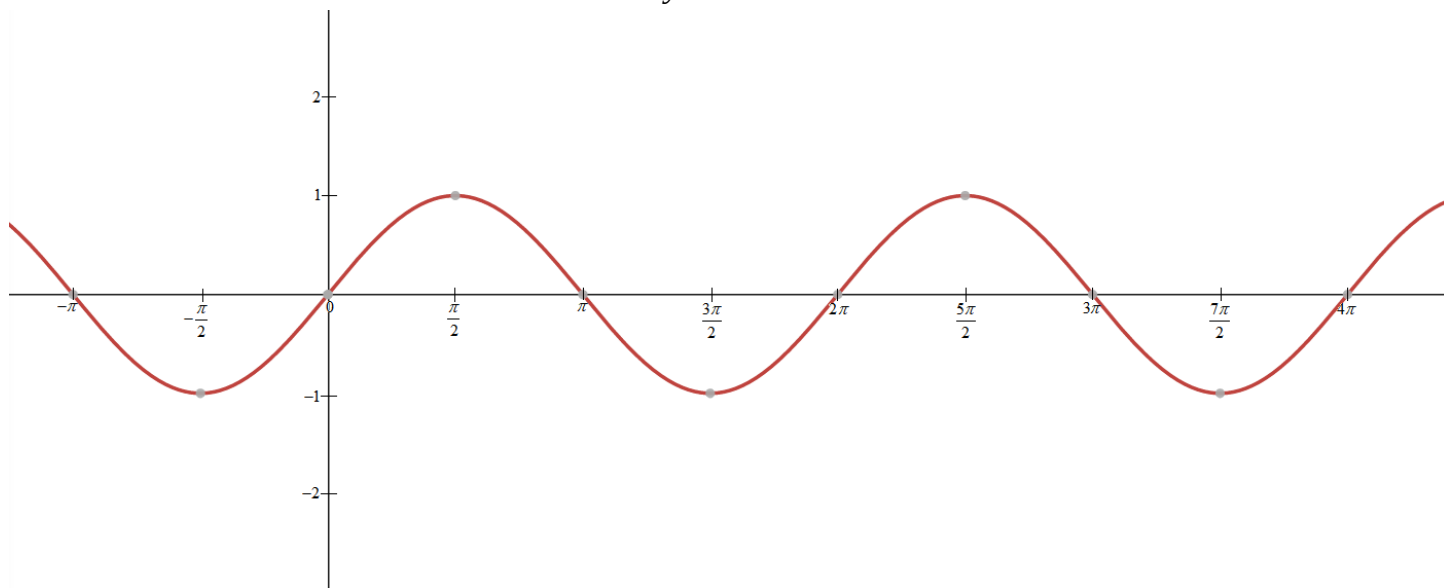
Parent Function $y = \sin x$



Practice Problems: Graph each of the following on the same x and y axis as the parent function shown. The objective is to see the difference in the two functions, so both need to be on the same plane.

1.

$$y = 3 \sin x$$



Amplitude:

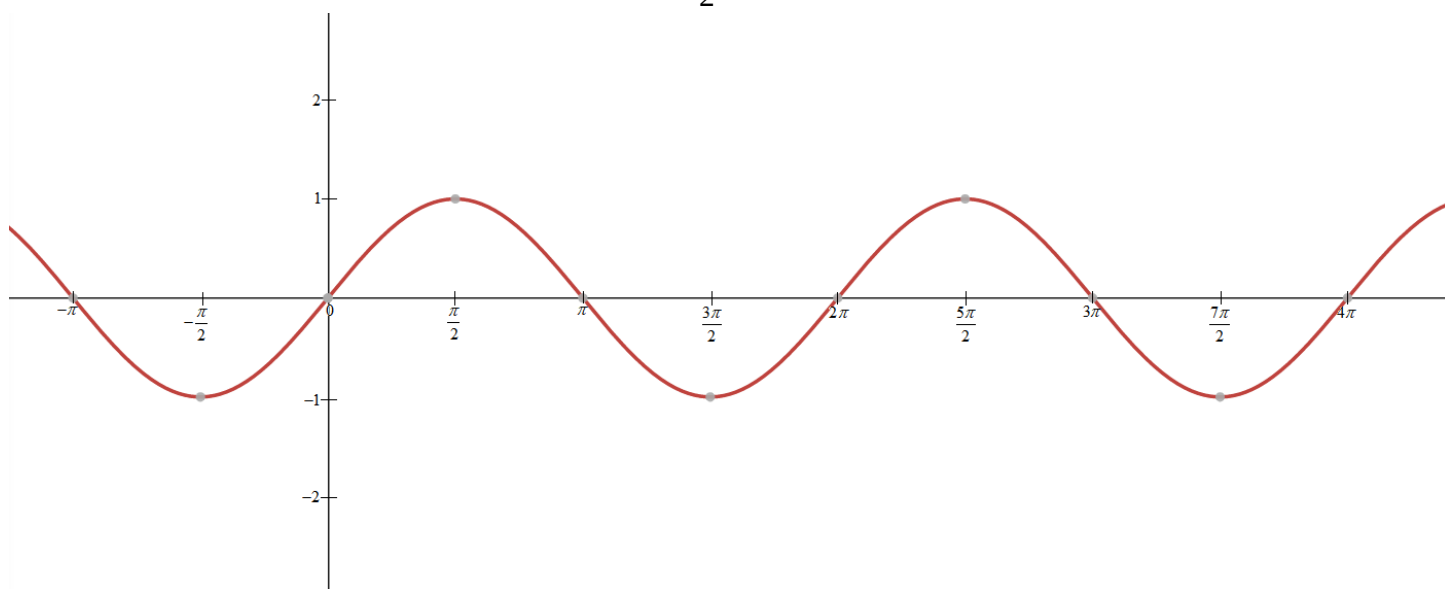
Period:

Phase Shift:

Initial Interval:

2.

$$y = \frac{1}{2} \sin x$$



Amplitude:

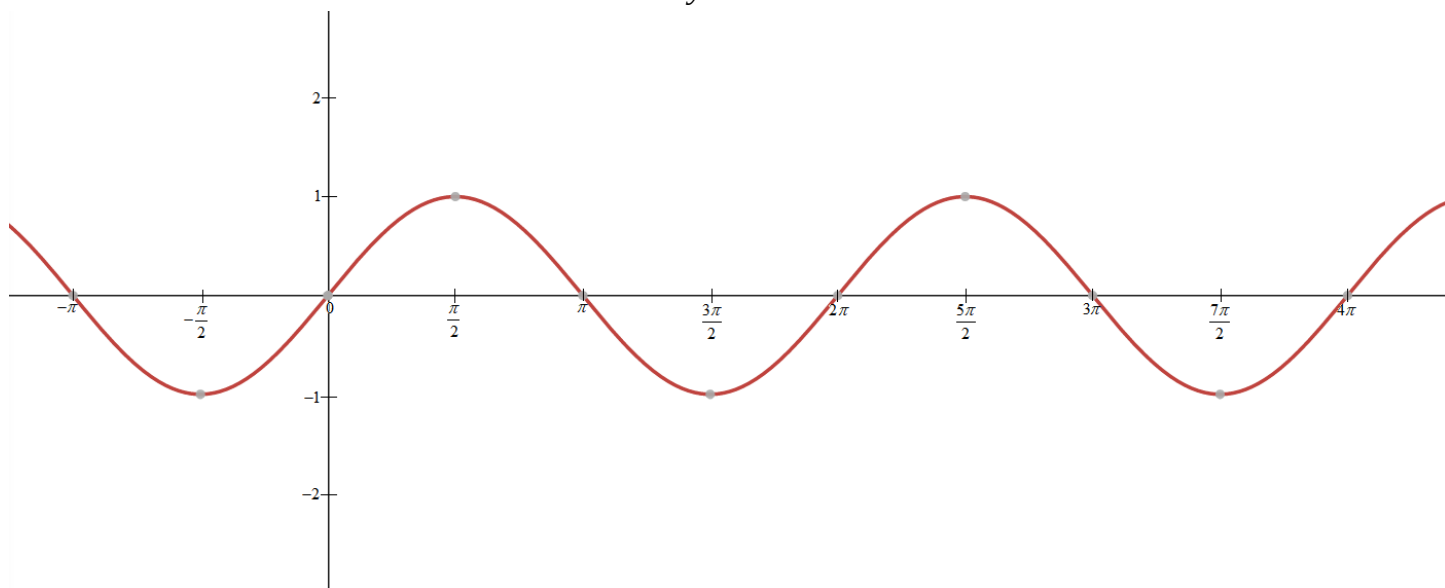
Period:

Phase Shift:

Initial Interval:

3.

$$y = -2 \sin x$$



Amplitude:

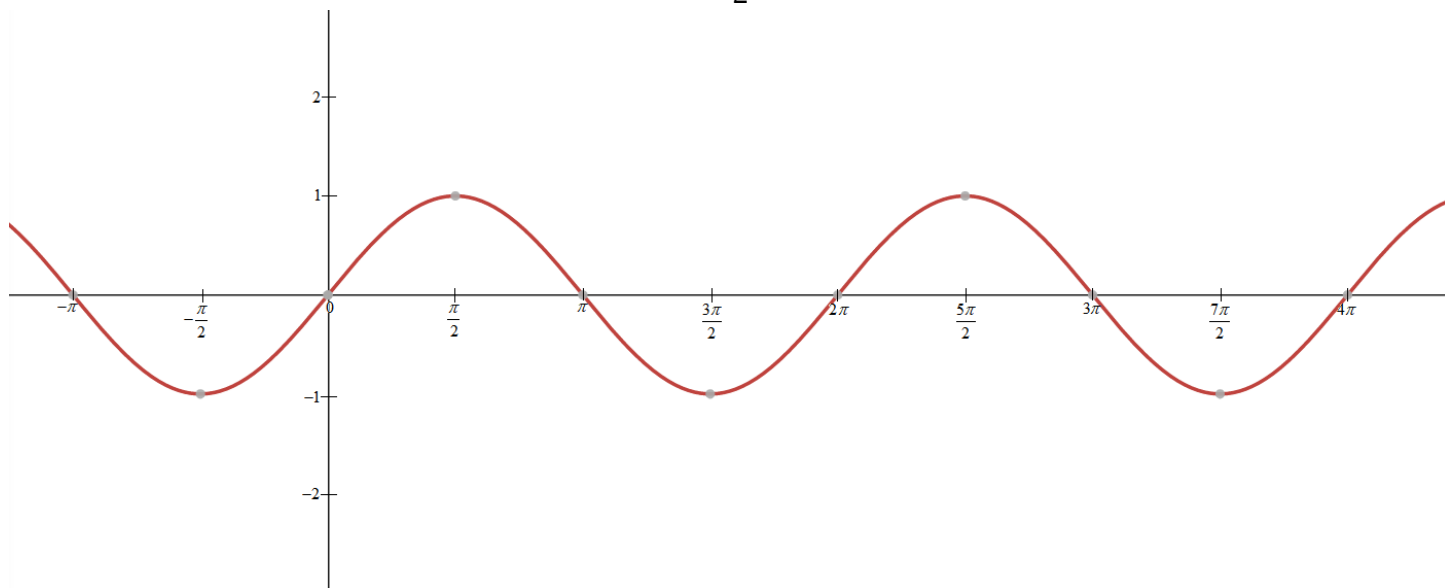
Period:

Phase Shift:

Initial Interval:

4.

$$y = \sin \frac{x}{2}$$



Amplitude:

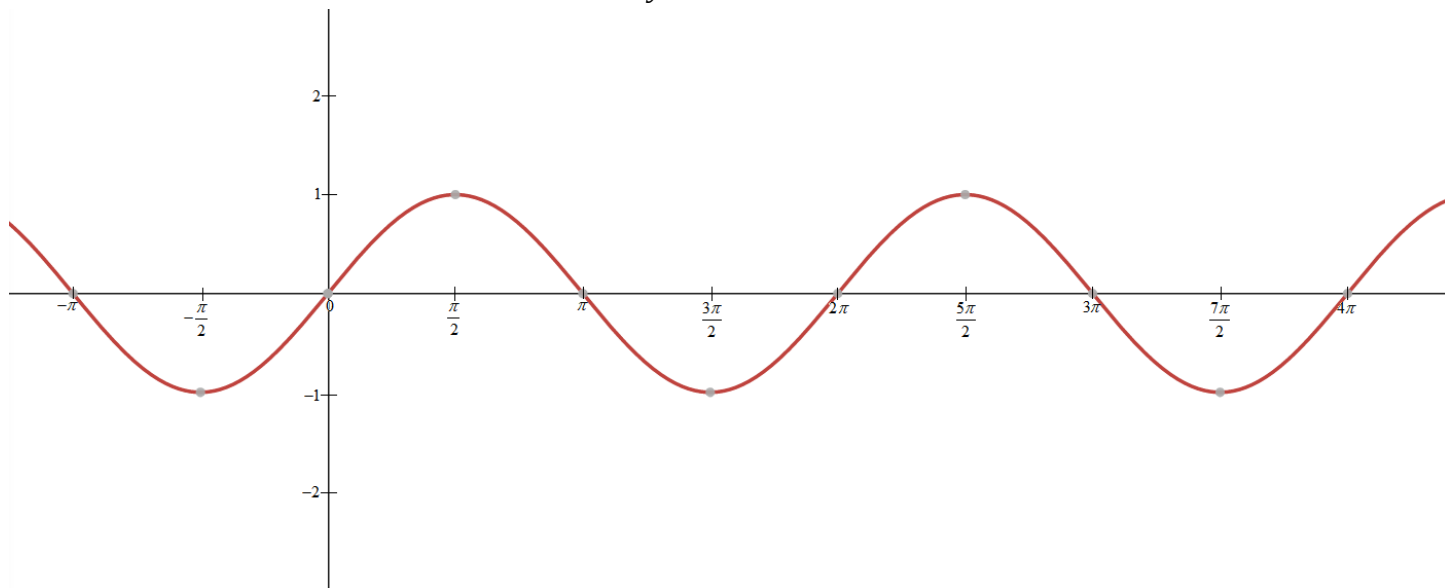
Period:

Phase Shift:

Initial Interval:

5.

$$y = -3\sin 2x$$



Amplitude:

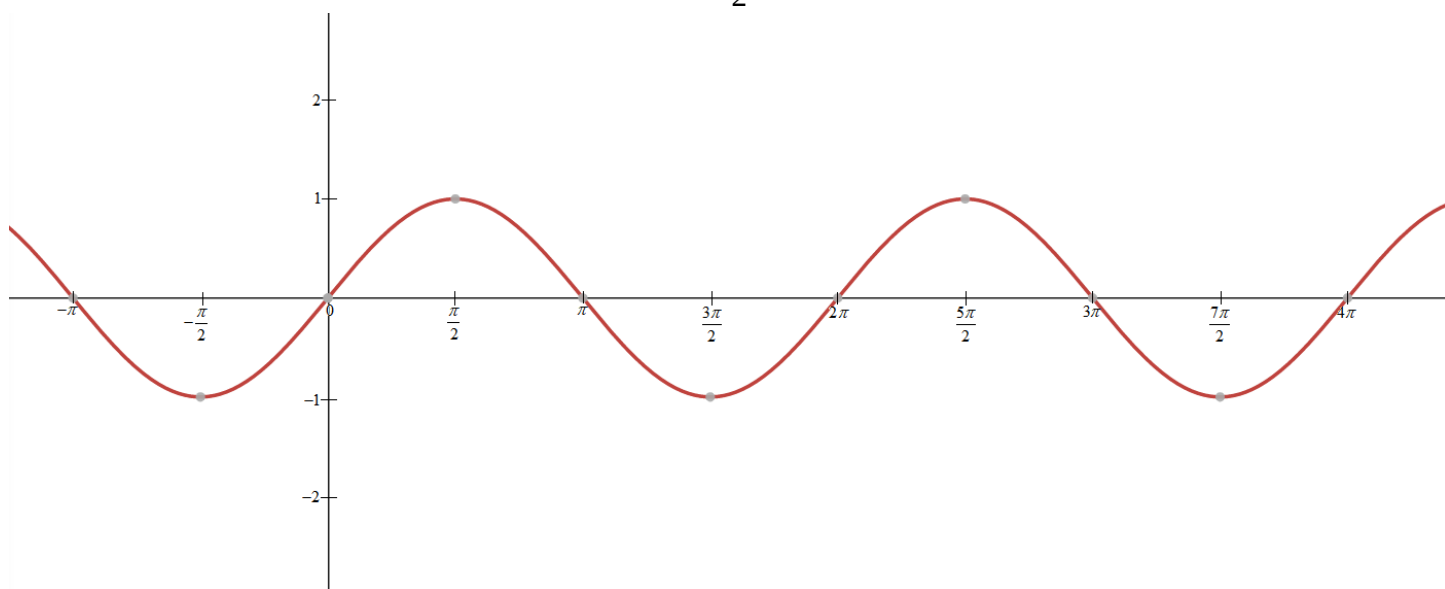
Period:

Phase Shift:

Initial Interval:

6.

$$y = -\sin \frac{x}{2}$$



Amplitude:

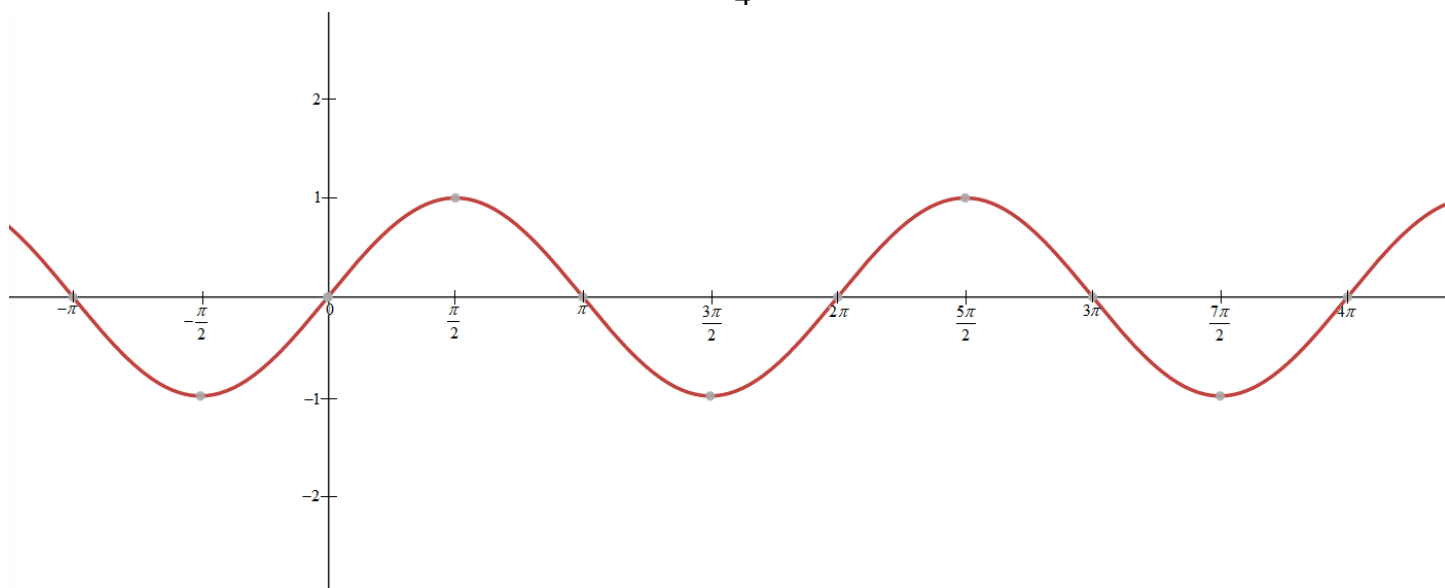
Period:

Phase Shift:

Initial Interval:

7.

$$y = 3\sin \frac{x}{4}$$



Amplitude:

Period:

Phase Shift:

Initial Interval: