

## WKST AMPLITUDE AND SINE FUNCTIONS

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

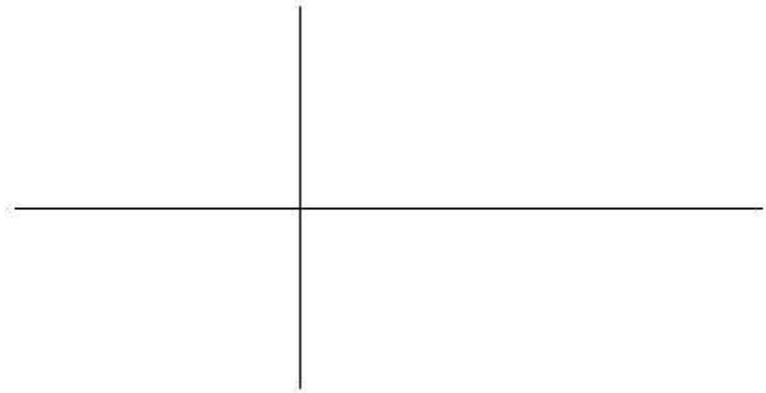
**Parent Function**  $y = \sin x$

**Amplitude:**

**Period:**

**Phase Shift:**

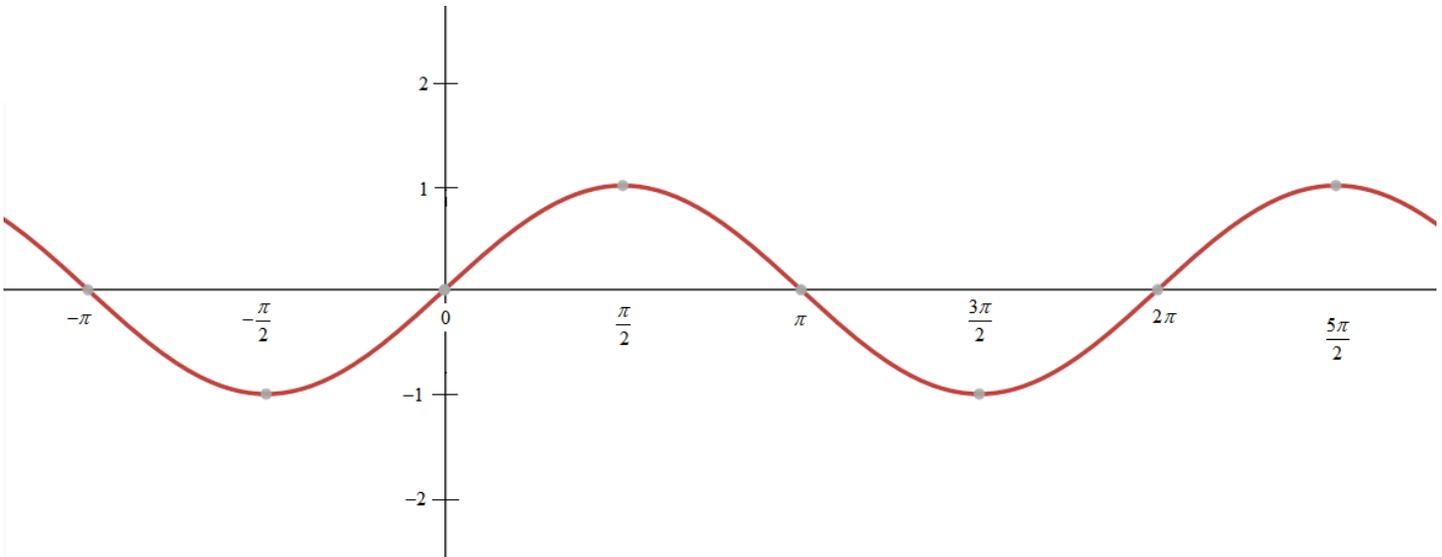
**Initial Interval:**



**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.**

$y = 2 \sin x$



**Amplitude:**

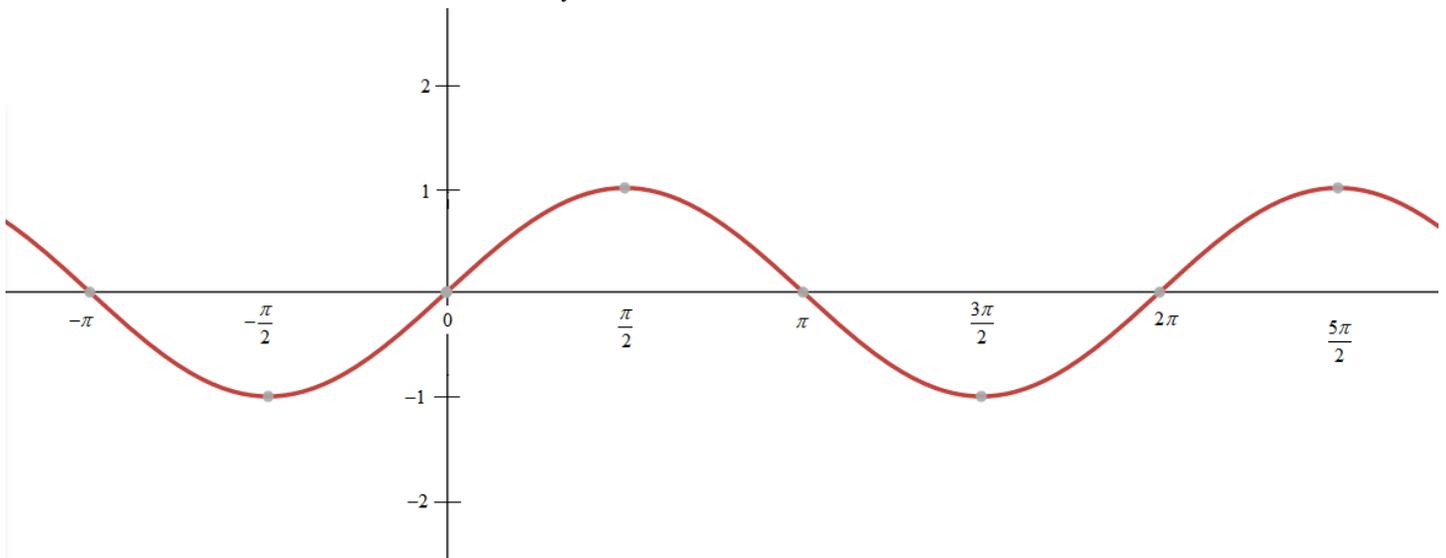
**Period:**

**Phase Shift:**

**Initial Interval:**

2.

$$y = -2\sin x$$



**Amplitude:**

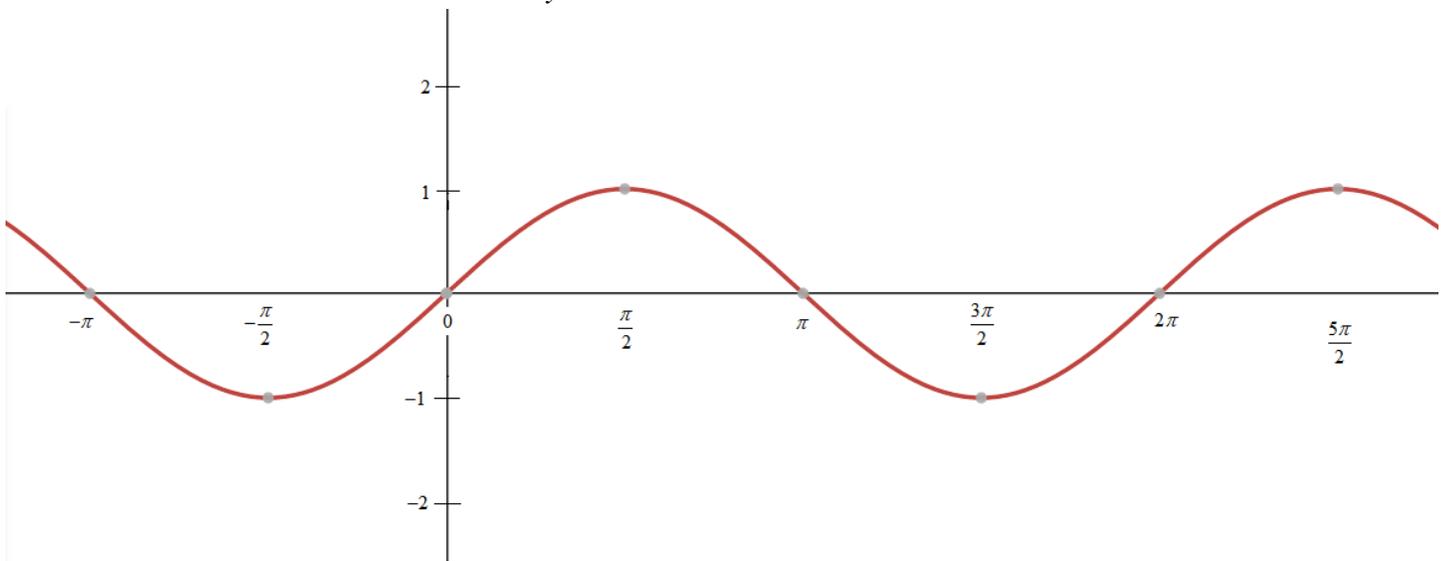
**Period:**

**Phase Shift:**

**Initial Interval:**

3.

$$y = -\sin x$$



**Amplitude:**

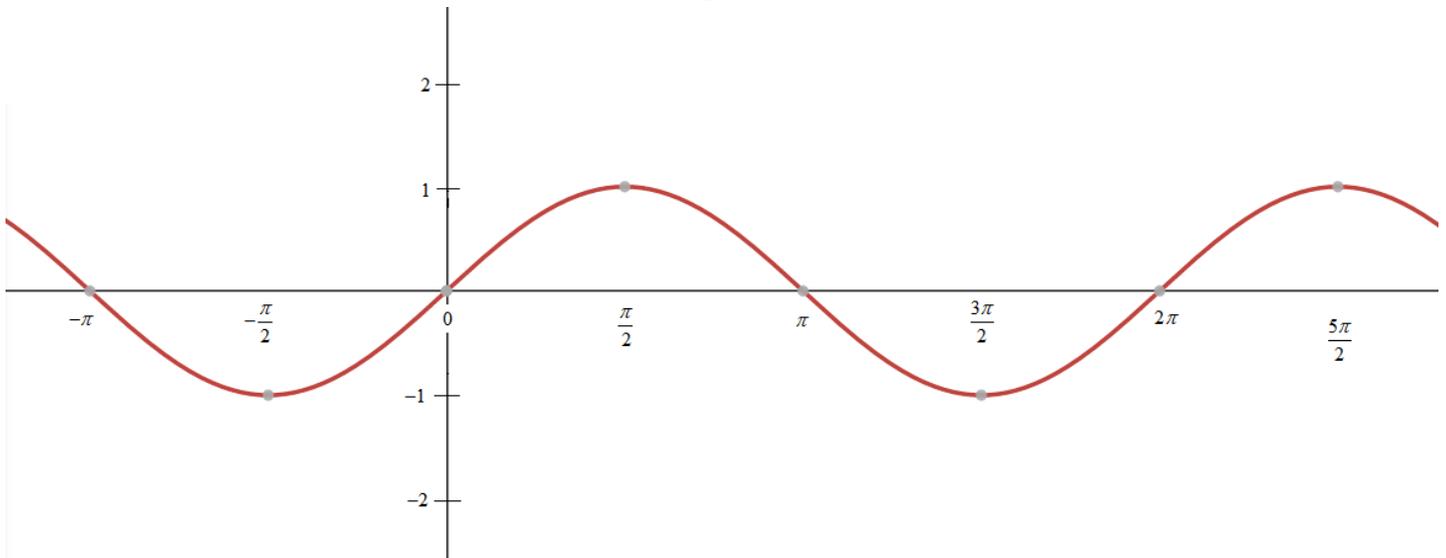
**Period:**

**Phase Shift:**

**Initial Interval:**

4.

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



**Amplitude:**

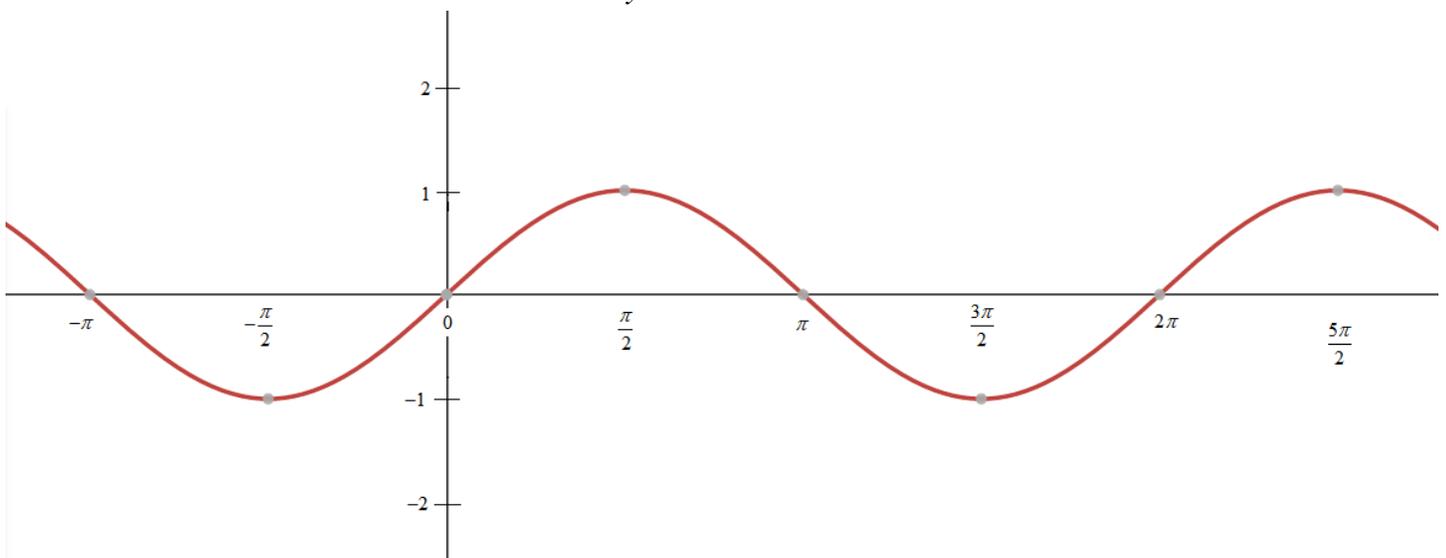
**Period:**

**Phase Shift:**

**Initial Interval:**

5.

$$y = 3 \sin x$$



**Amplitude:**

**Period:**

**Phase Shift:**

**Initial Interval:**