

## Graph using 5 points

$$y = 2 \sin (3x - \pi)$$

$$y = A \sin (Bx - C)$$

1. Period =  $2\pi/B$

For  $y = 2 \sin (3x - \pi)$  period = \_\_\_\_\_

2. Amplitude =  $|A|$

For  $y = 2 \sin (3x - \pi)$  Amplitude = \_\_\_\_\_

3. Phase Shift =  $C/B$

For  $y = 2 \sin (3x - \pi)$  Phase Shift = \_\_\_\_\_

Find 5 points:

Start from x-coordinates of the 5 points:

Point1 x-coordinate =  $x_1 =$  Phase Shift \_\_\_\_\_

Point2 x-coordinate =  $x_2 =$  Phase Shift + period/4 \_\_\_\_\_

Point3 x-coordinate =  $x_3 =$  Phase Shift + period/2 \_\_\_\_\_

Point4 x-coordinate =  $x_4 =$  Phase Shift + 3/4 period \_\_\_\_\_

Point5 x-coordinate =  $x_5 =$  Phase Shift + period \_\_\_\_\_

Plot  $x_1, x_2, x_3, x_4, x_5$  on x-axes



Find y-coordinates (5 values of the function  $y = 2 \sin (3x - \pi)$ )

$X = x_1, y(x_1) =$  \_\_\_\_\_

$X = x_2, y(x_2) =$  \_\_\_\_\_

$X = x_3, y(x_3) =$  \_\_\_\_\_

$X = x_4, y(x_4) =$  \_\_\_\_\_

$X = x_5, y(x_5) =$  \_\_\_\_\_

Points of 1 cycle of the  $y = 2 \sin (3x - \pi)$  are:

$(X_1, y(x_1)) =$  \_\_\_\_\_  $(X_2, y(x_2)) =$  \_\_\_\_\_

$(X_3, y(x_3)) =$  \_\_\_\_\_  $(X_4, y(x_4)) =$  \_\_\_\_\_

$(X_5, y(x_5)) =$  \_\_\_\_\_

