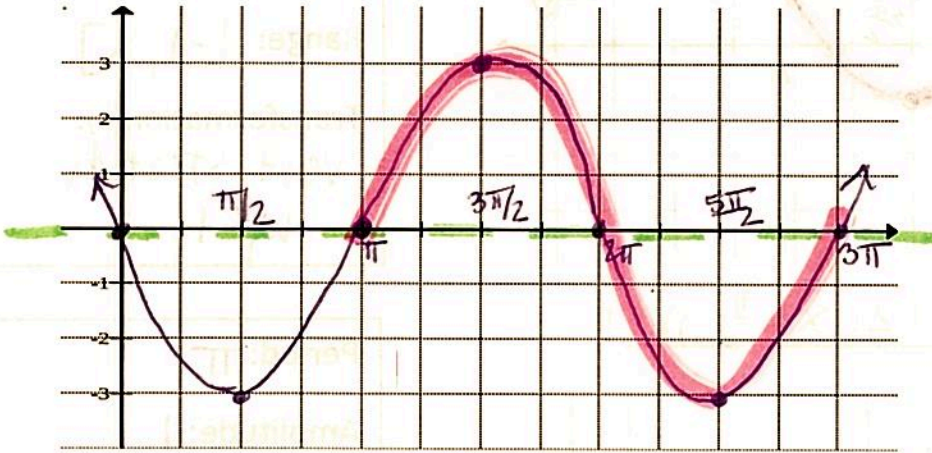


Graphing Sine and Cosine Practice

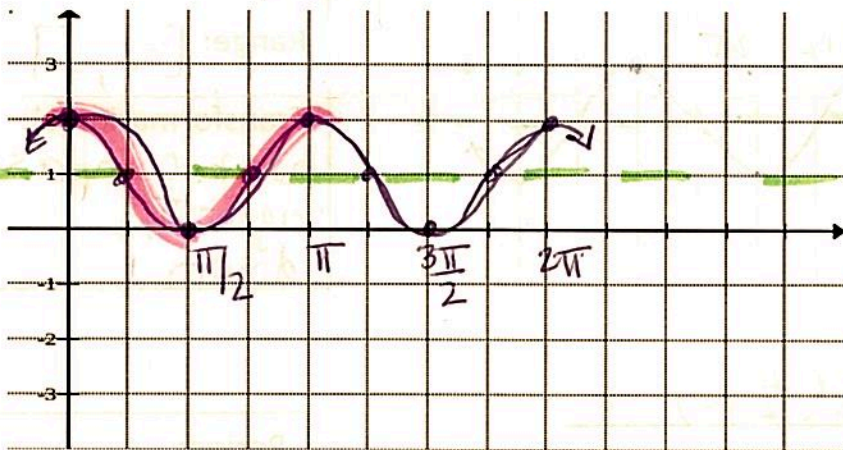
Graph and complete the characteristics in the box. Be sure and label your x-axis so your period can be easily identified from your sketch.

1. Equation: $y = 3 \sin(x - \pi)$



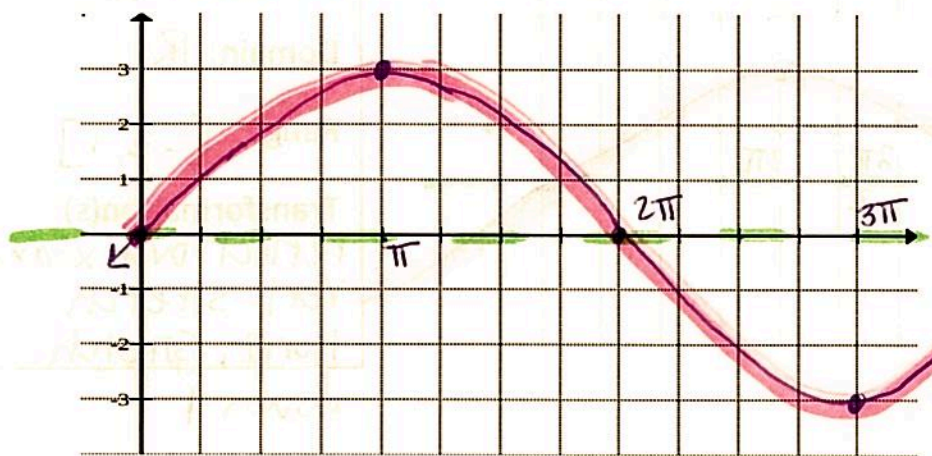
Period: 2π
 Amplitude: 3
 Domain: \mathbb{R}
 Range: $[-3, 3]$
 Transformation(s):
 Vert. stretch
 right π

2. Equation: $y = \cos(2x) + 1$



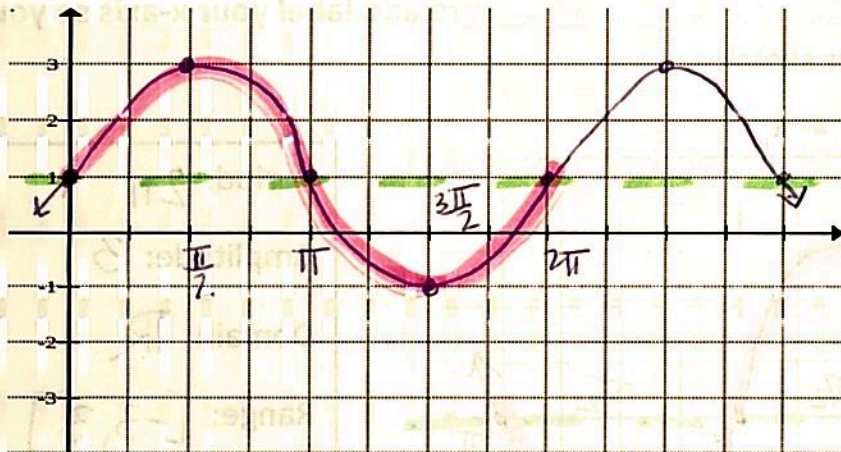
Period: π
 Amplitude: 1
 Domain: \mathbb{R}
 Range: $[0, 2]$
 Transformation(s):
 horiz. compression
 up 1

3. Equation: $y = 3 \sin(\frac{1}{2}x)$



Period: 4π
 Amplitude: 3
 Domain: \mathbb{R}
 Range: $[-3, 3]$
 Transformation(s):
 Vert. stretch
 horiz. stretch

4. Equation: $y = 2\sin(x) + 1$



Period: 2π

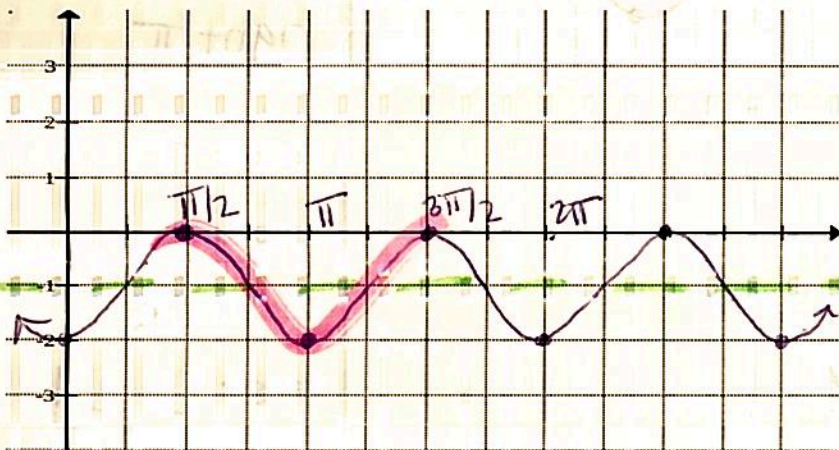
Amplitude: 2

Domain: \mathbb{R}

Range: $[-1, 3]$

Transformation(s):
vert. stretch
up 1

5. Equation: $y = \cos(2(x - \frac{\pi}{2})) - 1$



Period: π

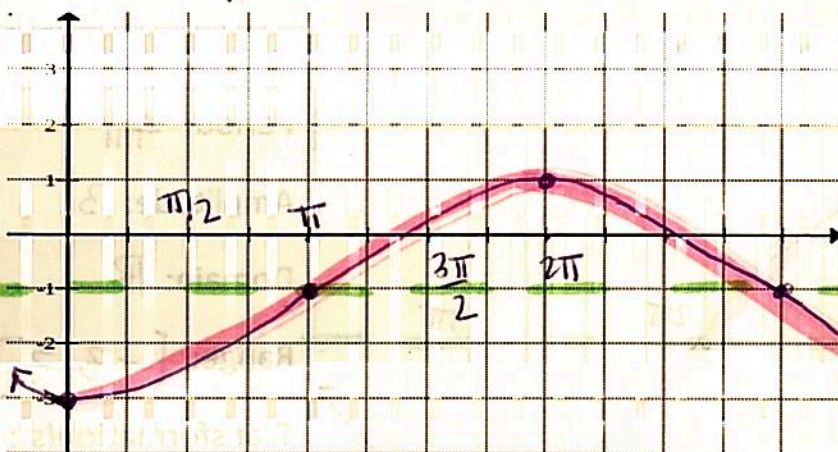
Amplitude: 1

Domain: \mathbb{R}

Range: $[-2, 0]$

Transformation(s):
horiz. compression
right $\pi/2$
down 1

6. Equation: $y = -2\cos(\frac{1}{2}x) - 1$



Period: 4π

Amplitude: 2

Domain: \mathbb{R}

Range: $[-3, 1]$

Transformation(s):
reflect over x-axis
vert. stretch
horiz. stretch
down 1