

Write the equation of each using the description of the transformations applied to each parent function.

1. Parent function: $\cos x$ Transformations: Amplitude = 6, upside-down, Period = $\frac{3\pi}{10}$, Phase shift $\frac{5\pi}{2}$ to the right & 7 units down.

EQ:

2. Parent function: $\cos x$ Transformations: Vertical stretch factor of 10, Period = 15π , Phase shift $\frac{\pi}{8}$ to the left & 1 units up.

EQ:

3. Graph one period of this function. Label the coordinates of the maximums, minimums, and x-intercepts. $y = -4\cos(6(x + \frac{5\pi}{9})) + 2$

4. Write a Cosine Eq for this graph.

EQ:

5. Write both a Sine and a Cosine Eq for this graph.

Cos EQ:

Sin EQ:

