

Writing Equations

Steps:

1. Determine A (amplitude): $A = \frac{\max - \min}{2}$
2. Determine B: Use period, $p = \frac{2\pi}{|B|}$, or $B = \frac{2\pi}{p}$
3. Determine D (displacement): $D = \frac{\max + \min}{2}$
4. Determine C (phase shift)

Cosine:

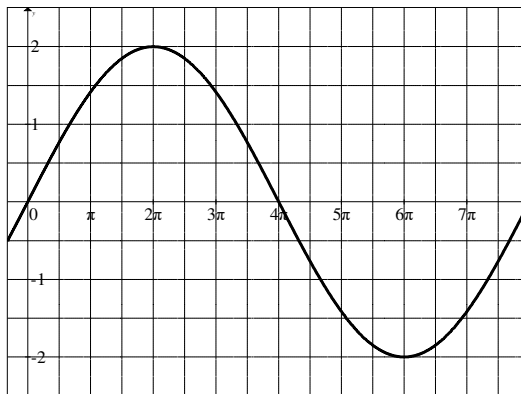
Locate max on graph, determine horizontal translation from y-axis

Sine:

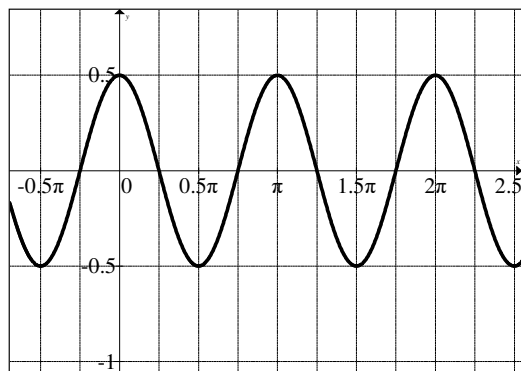
Locate the closest point where the graph intersects the midline (median, centre line, etc.) and determine the horizontal translation from the y-axis

Ex. 1) Write the equation of the given trigonometric graphs.

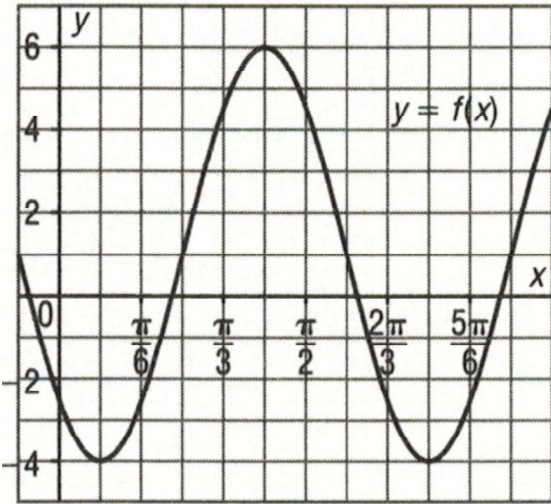
a)



b)



c)



d)

