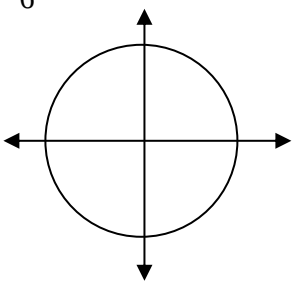
AA8-4 Name: _____

Graphing Cosine

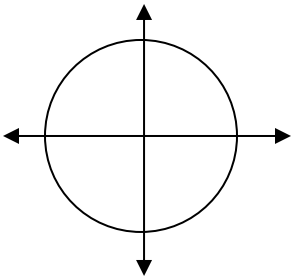
**Practice:**

Using the cosine graph and the unit circle, mark the angle on each unit circle below and state the value of the cosine of that angle.

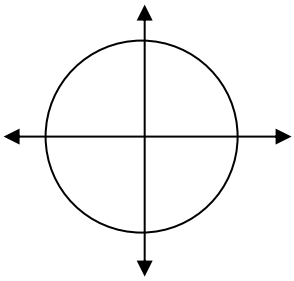
a) $\frac{\pi}{6}$ radians



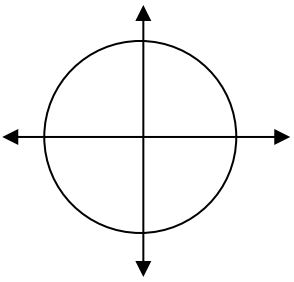
b) 0 radians



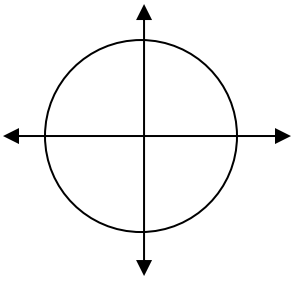
c) $\frac{\pi}{4}$ radians



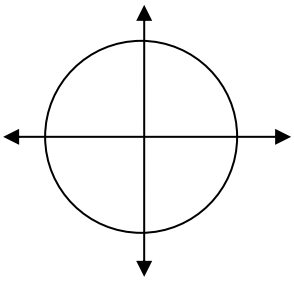
d) $\frac{\pi}{2}$ radians



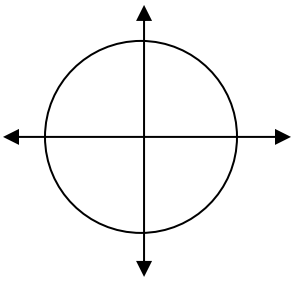
e) $\frac{\pi}{3}$ radians



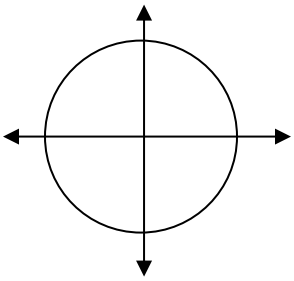
f) $\frac{2\pi}{3}$ radians



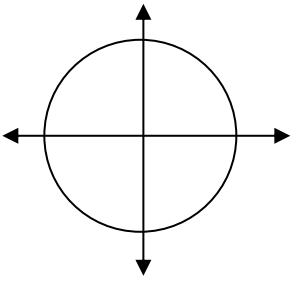
g) $-\frac{\pi}{3}$



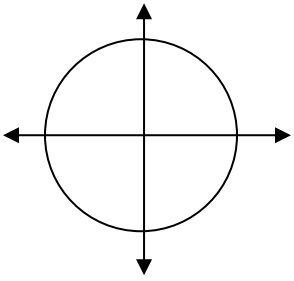
h) $-\frac{\pi}{4}$



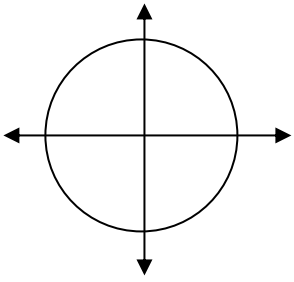
i) $-\frac{\pi}{6}$



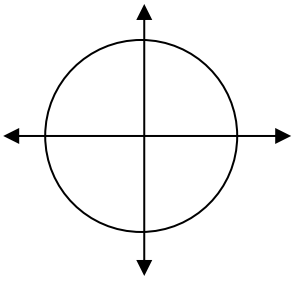
j) $-\frac{2\pi}{3}$



k) $-\frac{3\pi}{4}$



l) $-\pi$



**Looking ahead:** Use your prior knowledge of transformations to graph each of the functions.

**Graphing requirements:**

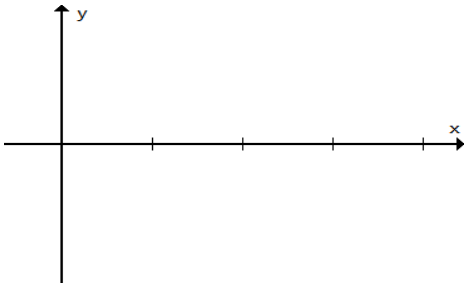
Always include a scale on both axes.

At least 5 points must be plotted: the maximums (high), minimums (low) and the "mids"

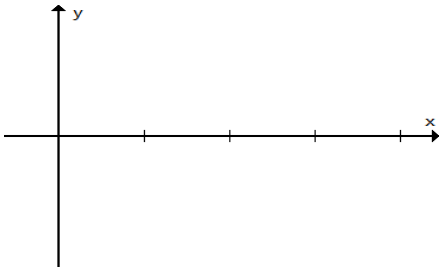
One full period must be graphed.

1) Parent graphs:

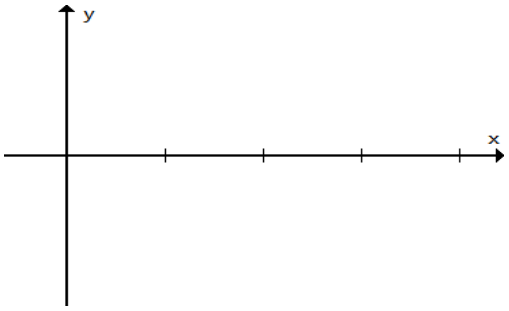
$y = \sin(x)$



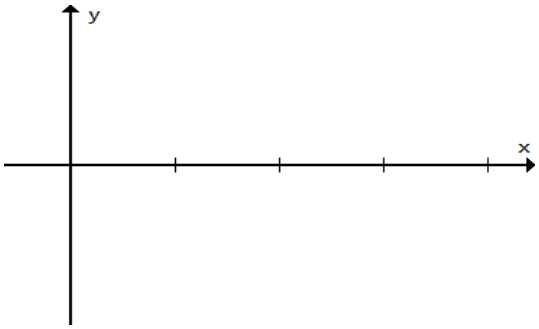

$y = \cos(x)$



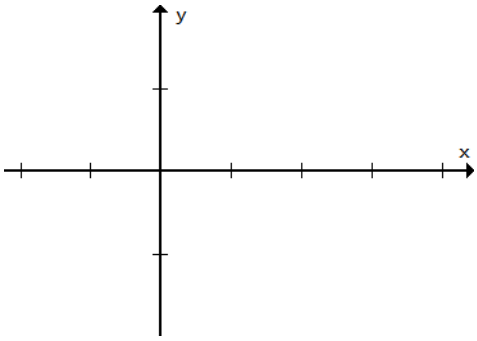

2) a) $y = \sin(x) - 1$



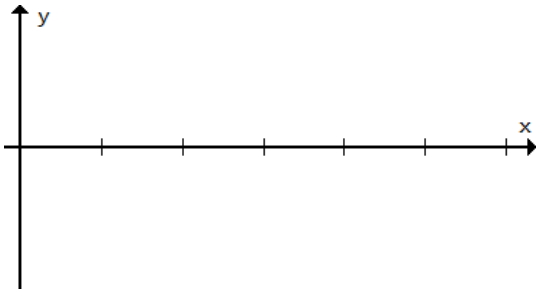

b) $y = \cos(x) - 1$



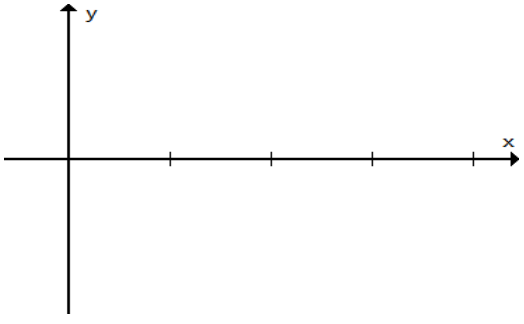

3) a) $y = \sin(x - \frac{\pi}{2})$




b) $y = \cos(x + \pi)$




4) a) $y = 3\sin(x)$




b) $y = 2\cos(x)$