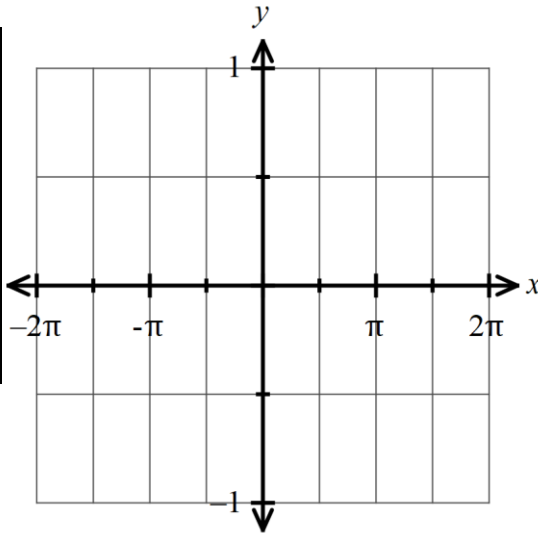


Name of Graph: _____

Key Features

Equation: _____

| x | $f(x)$ |
|-----|--------|
| | |
| | |
| | |
| | |
| | |
| | |



Domain:

Range:

x -intercept(s):

y -intercept:

Increasing:

Decreasing:

Constant:

Amplitude:

Period:

Positive:

Negative:

Maximums /Minimums

Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

Vertical Shift:

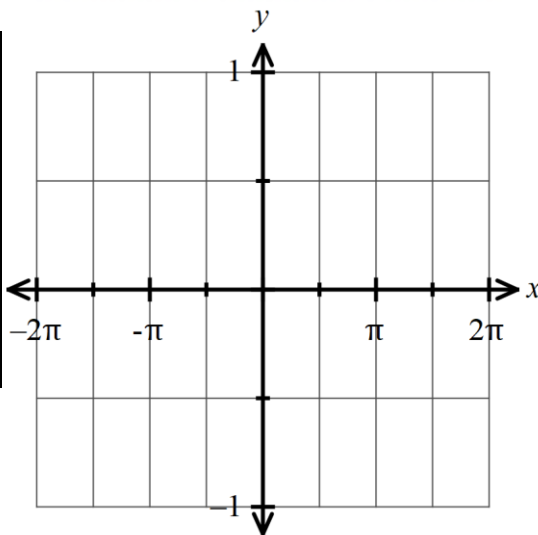
Phase Shift:

Name of Graph: _____

Key Features

Equation: _____

| x | $f(x)$ |
|-----|--------|
| | |
| | |
| | |
| | |
| | |
| | |



Domain:

Range:

x -intercept(s):

y -intercept:

Increasing:

Decreasing:

Constant:

Amplitude:

Period:

Positive:

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Maximums /Minimums

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End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

Vertical Shift:

Phase Shift:

Steps for solving cosine equation:

- ① get cosine by itself
- ② find quadrants to use
 $\frac{S}{T} \mid \frac{A}{C}$ & draw triangles if needed
- ③ find reference angle
 - unit circle
 - use calc & do inverse
- ④ find the angles in standard position $\pm 180^\circ$ -360°
 $\pm \pi$ -2π

ex. 1

$$6 - 4 \cos \theta = 8$$

$$-4 \cos \theta = 2$$

$$\cos \theta = -\frac{1}{2}$$

$$\theta = 120^\circ, 240^\circ$$

$$\theta = \frac{2\pi}{3}, \frac{4\pi}{3}$$



$$\cos^{-1}\left(-\frac{1}{2}\right) = \theta$$
$$\text{ref } \angle = 60^\circ$$

Steps for solving cosine equation: