

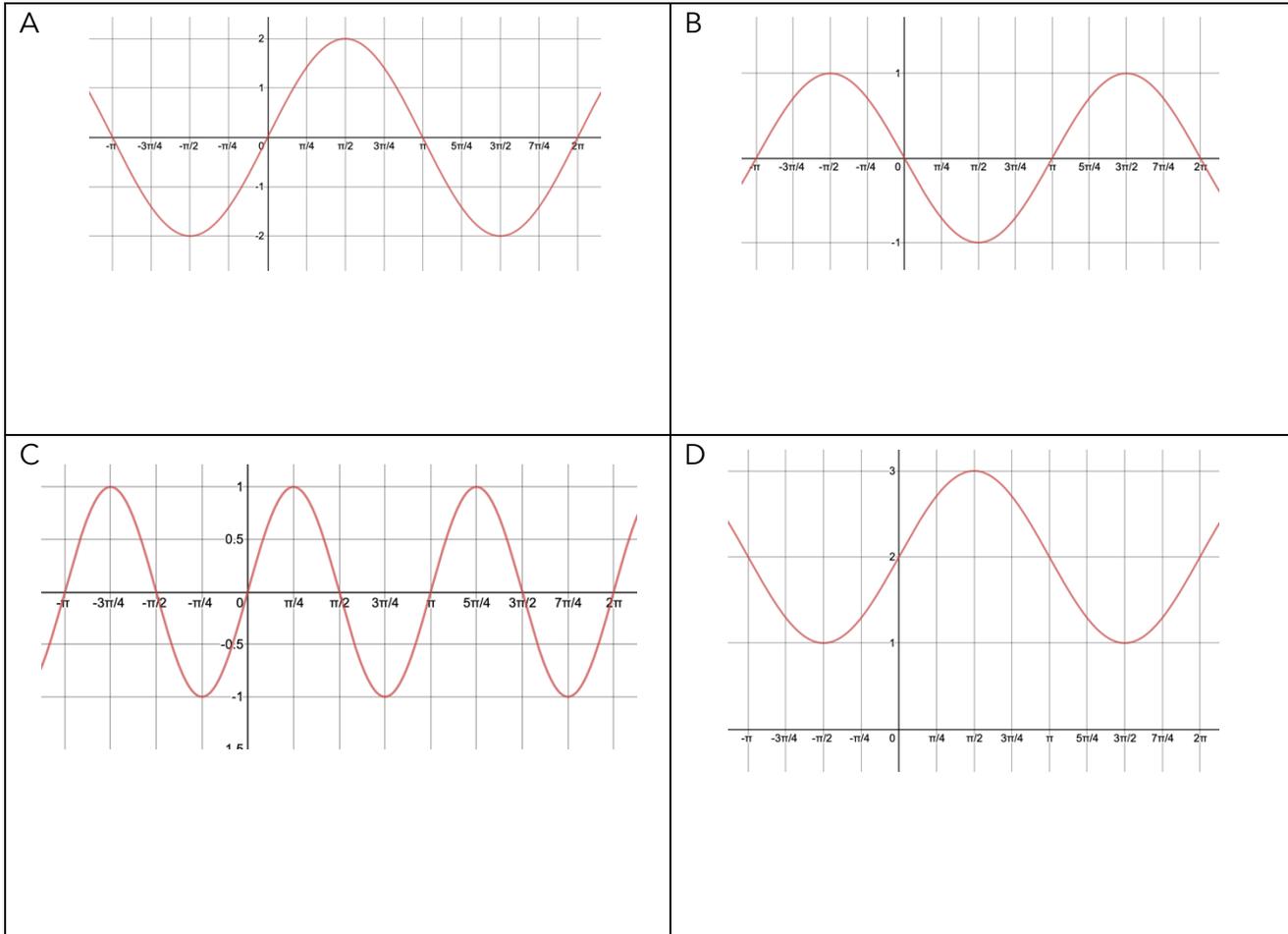


Which One Doesn't Belong?



Yesterday we learned about the graphs of the parent functions $y = \sin x$ and $y = \cos x$. Today we'll see how transformations affect these graphs.

1. Give a convincing argument for which of the four graphs doesn't belong. Can you find a reason for each of the graphs?



2. The four equations below represent the four graphs. Match each equation with its graph without the use of a calculator.

$y = \sin(2x)$	$y = 2 \sin x$
$y = \sin(x - \pi)$	$y = \sin x + 2$

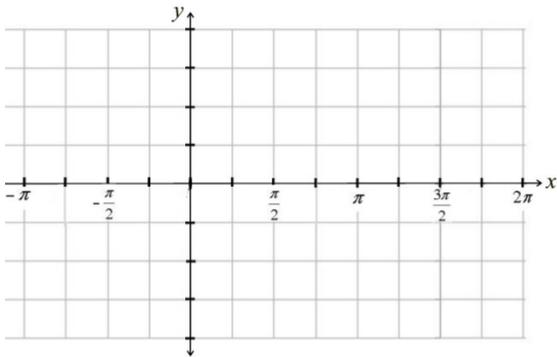
3. Kennedy thinks that the graph of $y = \sin(x - \pi)$ could also be written as $y = -\sin x$. Do you agree or disagree? Explain.

Lesson 6.6 – Transformations of Sine and Cosine

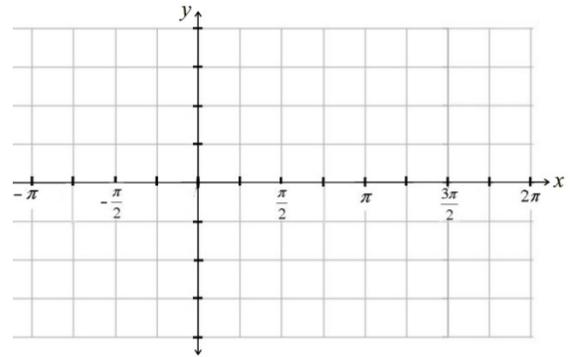
QuickNotes

Check Your Understanding

1. a) Graph $y = -3 \cos x$

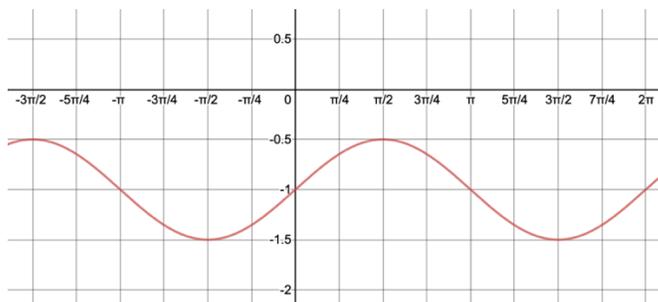


b) Graph $y = 2 \sin(x - \frac{\pi}{2})$



2. Determine the domain, range, period, and amplitude of $y = 5 \cos(\frac{1}{2}x) + 2$

3. The equation for the graph below is given by $y = A \sin(Bx) + C$. Find the values of A , B , and C .



4. Which of the following equations is NOT equivalent to the other three?

- A) $y = \cos(x + \frac{\pi}{2})$
- B) $y = \sin(-x)$
- C) $y = \sin(x + \pi)$
- D) $y = -\cos(x)$