

Use transformations to graph the sine function.
Determine its amplitude and period before graphing.

1) $y = 5 \sin(x)$

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

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

4) $y = \sin\left(\frac{1}{2}x\right)$

5) $y = -2 \sin(3x)$

6) $y = 2 \sin\left(\frac{1}{2}x\right)$

7) $y = \sin(-5x)$

8) $y = \sin\left(-\frac{1}{4}x\right)$

9) $y = -4 \sin(-3x)$

10) $y = 3 \sin\left(-\frac{1}{2}x\right)$

11) $y = 5 + \sin(x)$

12) $y = \sin(x) - 6$

13) $y = 3 \sin\left(\frac{1}{2}x\right) - 2$

14) $y = -4 \sin(2x) + 2$

15) $y = -\sin\left(x - \frac{\pi}{2}\right)$

16) $y = \sin\left(x + \frac{\pi}{6}\right)$

Use transformations to graph the cosine function.
Determine its amplitude and period before graphing.

17) $y = 3 \cos(x)$

18) $y = -4 \cos(x)$

19) $y = \cos(3x)$

20) $y = \cos\left(\frac{1}{2}x\right)$

21) $y = -3 \cos(2x)$

22) $y = 2 \cos\left(\frac{1}{3}x\right)$

23) $y = \cos(-4x)$

24) $y = \cos\left(-\frac{1}{4}x\right)$

25) $y = -4 \cos(-3x)$

26) $y = 3 \cos\left(-\frac{1}{2}x\right)$

27) $y = 5 + \cos(x)$

28) $y = \cos(x) - 6$

29) $y = 4 \cos\left(\frac{1}{2}x\right) - 2$

30) $y = -3 \cos(2x) + 2$

31) $y = -\cos\left(x - \frac{\pi}{4}\right)$

32) $y = \cos\left(x + \frac{\pi}{6}\right)$



