

The Secret of Graphing Sine and Cosine Functions In Trigonometry 4.1 and 4.2

Lesson 154 | Trigonometry | Sine and cosine graphs

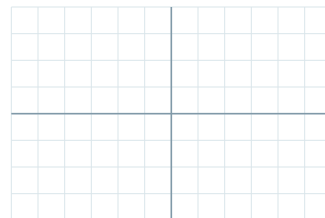
<https://www.youtube.com/watch?v=10TMjjKeZ3E>

Original practice aligned to the saved video title.

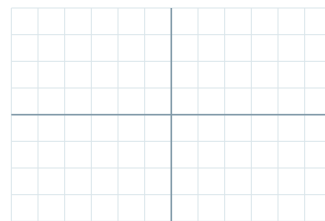
Name: _____ Date: _____ Show your reasoning.

01

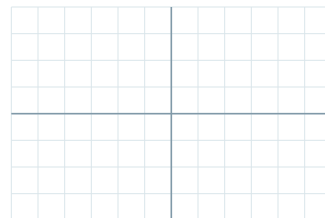
Analyze and sketch one cycle of $y=6\sin(4(x-(-1)))+13$. Give amplitude, period, phase shift, midline, and five key points.

**02**

Analyze and sketch one cycle of $y=2\sin(3(x-(-3)))+9$. Give amplitude, period, phase shift, midline, and five key points.

**03**

Analyze and sketch one cycle of $y=10\sin(5(x-(-8)))+12$. Give amplitude, period, phase shift, midline, and five key points.



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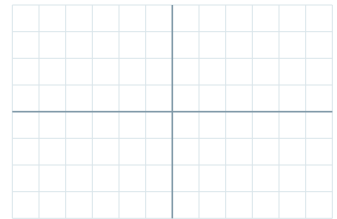
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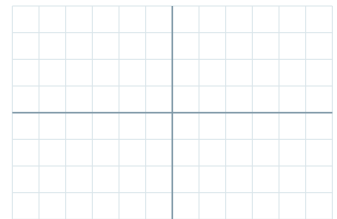
Name: _____ Date: _____ Show your reasoning.

04

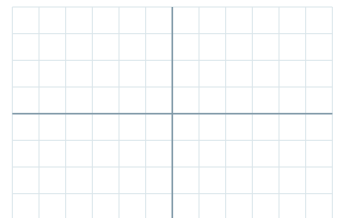
Analyze and sketch one cycle of $y=14\sin(3(x-(-5)))+9$. Give amplitude, period, phase shift, midline, and five key points.

**05**

Analyze and sketch one cycle of $y=10\sin(6(x-(-2)))+2$. Give amplitude, period, phase shift, midline, and five key points.

**06**

Analyze and sketch one cycle of $y=12\sin(7(x-(-8)))+10$. Give amplitude, period, phase shift, midline, and five key points.



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01

Analyze and sketch one cycle of $y=6\sin(4(x-(-1)))+13$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 6; period $2\pi/4$; shift -1; midline $y=13$. Start at $x=-1$; use x -increments $\pi/8$. The five y -values are 13,19,13,7,13.

02

Analyze and sketch one cycle of $y=2\sin(3(x-(-3)))+9$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 2; period $2\pi/3$; shift -3; midline $y=9$. Start at $x=-3$; use x -increments $\pi/6$. The five y -values are 9,11,9,7,9.

03

Analyze and sketch one cycle of $y=10\sin(5(x-(-8)))+12$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 10; period $2\pi/5$; shift -8; midline $y=12$. Start at $x=-8$; use x -increments $\pi/10$. The five y -values are 12,22,12,2,12.

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04

Analyze and sketch one cycle of $y=14\sin(3(x-(-5)))+9$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 14; period $2\pi/3$; shift -5; midline $y=9$. Start at $x=-5$; use x-increments $\pi/6$. The five y-values are 9, 23, 9, -5, 9.

05

Analyze and sketch one cycle of $y=10\sin(6(x-(-2)))+2$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 10; period $2\pi/6$; shift -2; midline $y=2$. Start at $x=-2$; use x-increments $\pi/12$. The five y-values are 2, 12, 2, -8, 2.

06

Analyze and sketch one cycle of $y=12\sin(7(x-(-8)))+10$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 12; period $2\pi/7$; shift -8; midline $y=10$. Start at $x=-8$; use x-increments $\pi/14$. The five y-values are 10, 22, 10, -2, 10.