

The Secret of Graphing Sine and Cosine Functions In Trigonometry 4.1 or Pre-Cal 5.3

Lesson 166 | Trigonometry | Sine and cosine graphs

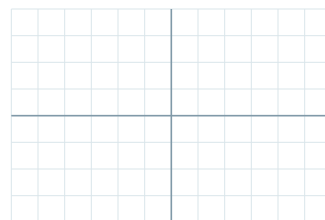
<https://www.youtube.com/watch?v=XmwdijuYTh4>

Original practice aligned to the saved video title.

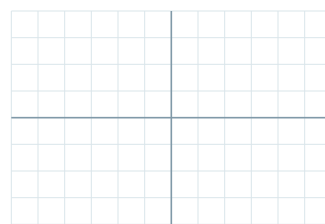
Name: _____ Date: _____ Show your reasoning.

01

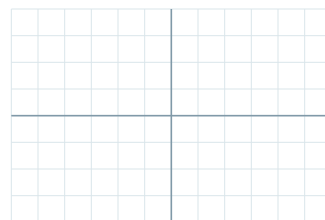
Analyze and sketch one cycle of $y=13\sin(4(x-(8))))+11$. Give amplitude, period, phase shift, midline, and five key points.

**02**

Analyze and sketch one cycle of $y=3\sin(7(x-(-3))))+4$. Give amplitude, period, phase shift, midline, and five key points.

**03**

Analyze and sketch one cycle of $y=14\sin(5(x-(4))))+6$. Give amplitude, period, phase shift, midline, and five key points.



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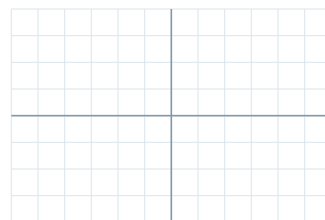
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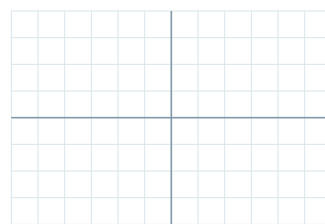
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04

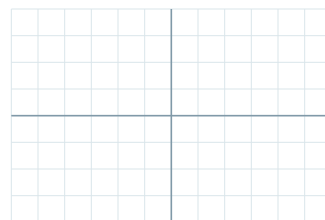
Analyze and sketch one cycle of $y=6\sin(4(x-(-4)))+8$. Give amplitude, period, phase shift, midline, and five key points.

**05**

Analyze and sketch one cycle of $y=3\sin(6(x-(2)))+7$. Give amplitude, period, phase shift, midline, and five key points.

**06**

Analyze and sketch one cycle of $y=13\sin(7(x-(-8)))+11$. Give amplitude, period, phase shift, midline, and five key points.



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- 01** Analyze and sketch one cycle of $y=13\sin(4(x-(8))))+11$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 13; period $2\pi/4$; shift 8; midline $y=11$. Start at $x=8$; use x-increments $\pi/8$. The five y-values are 11,24,11,-2,11.

- 02** Analyze and sketch one cycle of $y=3\sin(7(x-(-3))))+4$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 3; period $2\pi/7$; shift -3; midline $y=4$. Start at $x=-3$; use x-increments $\pi/14$. The five y-values are 4,7,4,1,4.

- 03** Analyze and sketch one cycle of $y=14\sin(5(x-(4))))+6$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 14; period $2\pi/5$; shift 4; midline $y=6$. Start at $x=4$; use x-increments $\pi/10$. The five y-values are 6,20,6,-8,6.

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04

Analyze and sketch one cycle of $y=6\sin(4(x-(-4)))+8$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 6; period $2\pi/4$; shift -4; midline $y=8$. Start at $x=-4$; use x-increments $\pi/8$. The five y-values are 8,14,8,2,8.

05

Analyze and sketch one cycle of $y=3\sin(6(x-(2)))+7$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 3; period $2\pi/6$; shift 2; midline $y=7$. Start at $x=2$; use x-increments $\pi/12$. The five y-values are 7,10,7,4,7.

06

Analyze and sketch one cycle of $y=13\sin(7(x-(-8)))+11$. Give amplitude, period, phase shift, midline, and five key points.

Amplitude 13; period $2\pi/7$; shift -8; midline $y=11$. Start at $x=-8$; use x-increments $\pi/14$. The five y-values are 11,24,11,-2,11.