

Daily Agenda

Learning Target: I can use sine and cosine functions to model.

Homework Worksheet	Assessments Unit 8 Test - 2/24
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Oh the things you can find if you don't stay behind!
- Dr. Seuss

Nov 15-8:24 PM

8.5 Sinusoidal Functions as Models

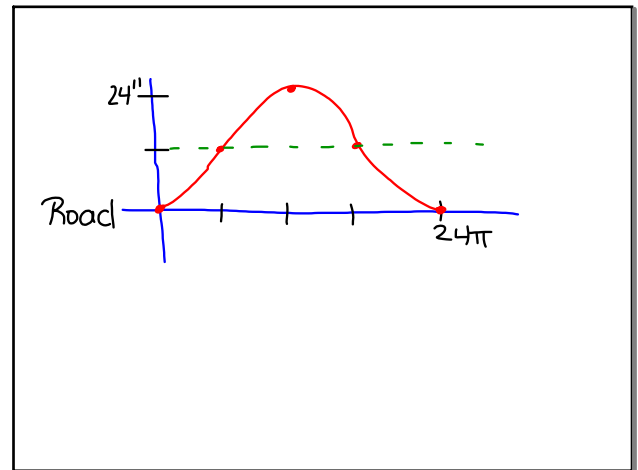
$$y = A \sin B(x - C) + D$$

$$y = A \cos B(x - C) + D$$

Mar 4-7:44 AM

As you stop your car at a stop sign, a pebble becomes wedged in the tire treads. When you start off, the distance of the pebble from the pavement varies sinusoidally with the distance you've traveled. The period is the circumference of the wheel. The diameter of the wheel is 24 inches. Draw a sketch of the graph.

Mar 4-9:22 AM



Feb 15-11:27 AM

What type of graph is this? Identify the period, amplitude, vertical shift. Write an equation.

Period
Amp
VS \uparrow 12

$C = \pi \cdot d$
 $= 24\pi$

Feb 15-9:28 AM

What is the height of the pebble once you've traveled 15 inches?

$$y = 12 - 12 \cos \frac{1}{12}(x)$$

$$y = 12 - 12 \cos \frac{1}{12} \cdot 15$$

$$= 8.22 \text{ in}$$

Feb 15-9:28 AM