

Warm Up: Pre-Calc

1/21

Assume one whole candle can be made from 5 candle stubs (the part left after a candle burns down). Mrs. Perry bought 25 candles and each candle burns down to a stub in one night. From those 25 candles she can burn one candle for _____ nights.

Feb 27-7:39 AM

Warm Up: Pre-Calc

1/21

Use the unit circle to find the value of each of these problems.

1) $\sin 225$

4) Convert 315 to radians

2) $\cos 330$

5) Convert $\frac{11\pi}{6}$ to degrees

3) $\sin \left(\frac{5\pi}{6} \right)$

Feb 27-7:39 AM

W.A.L.T.:

Day 1

Recognize situations that model periodic data.

W.A.S.I.:

We can use information in the context to sketch graphs of periodic data.

Mar 7-9:45 AM

In Class Work:

pg. 199 #1 - 3

Mar 7-1:33 PM

Stacy has a new bike. The bike has 24-inch-diameter wheels and 6-inch-diameter training wheels. The horizontal distance between the center of the 24-inch front wheel and the center of one 6-inch training wheel is 36 inches. Stacy is riding at a steady pace, and the 24-inch wheels rotate once every 4 seconds. As Stacy is riding down the street, her bike runs over a freshly painted parking stripe, and each wheel picks up a narrow strip of fresh paint that leaves marks on the pavement.

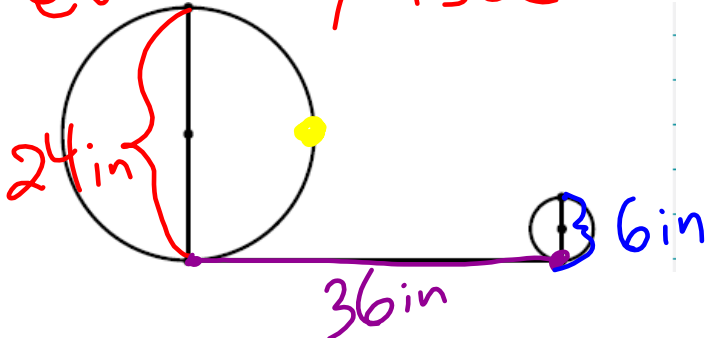
pg. 199 #1 - 3



Jan 3-10:23 AM

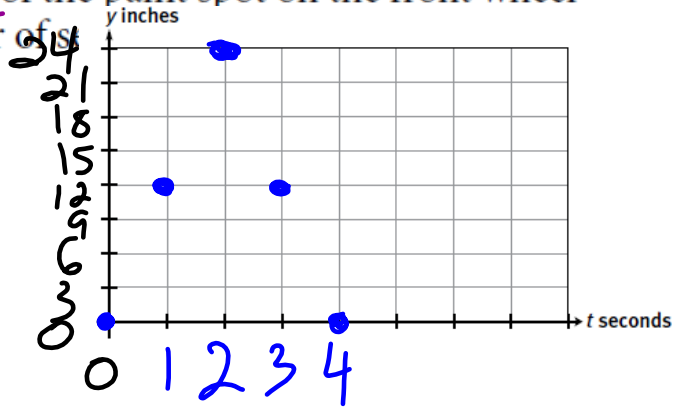
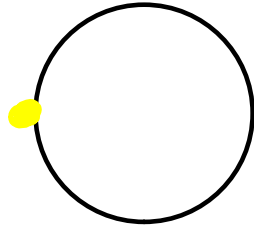
1. **Model with mathematics.** The figure at the right represents the front wheel and a training wheel on Stacy's bike. Label the length of each of the three segments shown in the figure, and then summarize any additional information given in the opening paragraph.

1 rev every 4 sec



Jan 3-10:23 AM

2. Let $t = 0$ seconds represent the time when Stacy's front wheel first crosses the freshly painted stripe. Sketch a graph of the height above the pavement of the paint spot on the front wheel as a function of the number of seconds after $t = 0$.



Jan 21-10:26 AM

3. Assume that Stacy's bicycle is on a path that runs perpendicular to the paint stripe.
 a. Find the distance that the front wheel travels in 4 seconds. Then use this information to find how long it takes for the training wheel to make one complete revolution.

Jan 3-10:23 AM

4. Use the sketch from Item 3c to estimate the first time that the paint spots on the front wheel and on the training wheel will be exactly the same height above the pavement.

Jan 3-10:24 AM

Today's Activities:

- In Class work on Periodic Data

P.W. for tonight:

- Finish pg. 199 #1 - 3

Day 1

Feb 27-7:23 AM