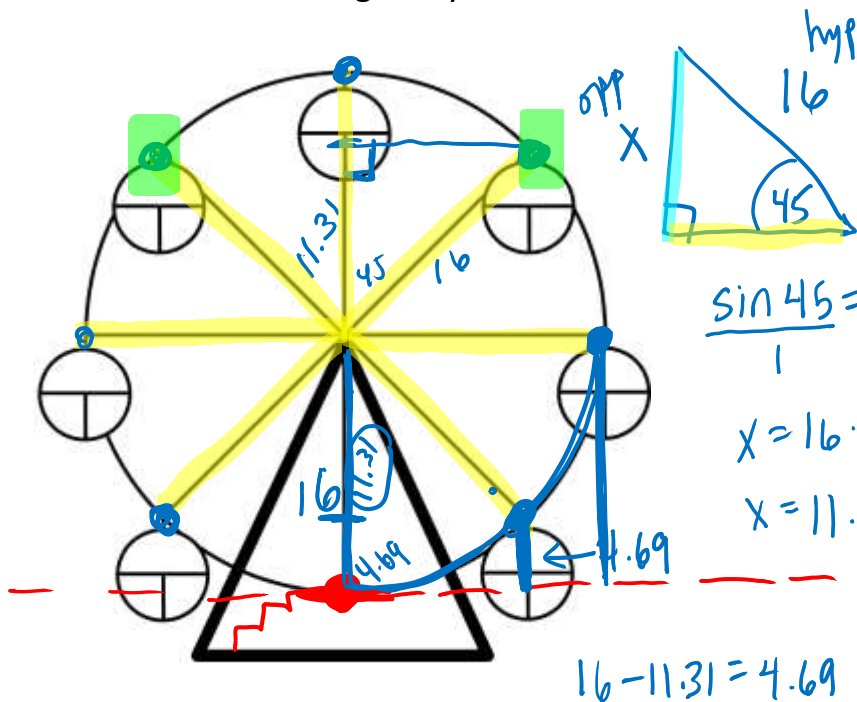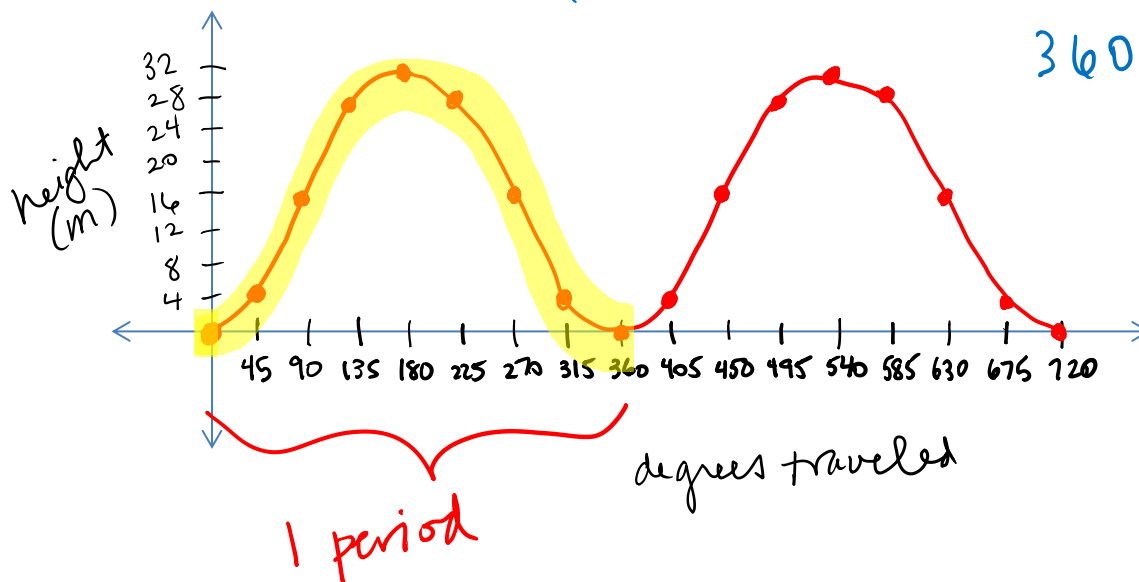Name___*Key*_____ Date_____ Hour_____

Section 14.1 NOTES
Graphing Trig Functions – Day 1

Suppose you are on a Ferris wheel. You get on at the bottom. Graph your height with respect to the number of degrees you have traveled.

hyp

opp

16

x

45

$\sin 45 = \dfrac{x}{16}$
        $\dfrac{}{1}$

$x = 16 \cdot \sin 45$

$x = 11.31$

$16 - 11.31 = 4.69$

Degrees travelled	Height off the ground
0	0
45	4.69
90	16
135	27.31
180	32
225	27.31
270	16
315	4.69
360	0

height (m)

degrees traveled

I period

The **PERIOD** of a function is "how long" it takes for the function to make one full "rotation."

What is the **period** of the Ferris Wheel problem? $360°$

Write the period for each function. **period = distance, so it is always POSITIVE!**

2

2π

5   **5**

4   **4**

3π

4π

6

π/2   **π/2**