Name: _____

Chapter 7 – Section 7.5 Sinusoidal Functions and Their Graphs

TICKET-IN-THE-DOOR

In order to be prepared for class you must watch the module and complete the following activity. This is due first thing when you get to class.

Given the nonzero constants A, B, h, and k the graph of the function $y = A\sin\big(B(t-h)\big) + k$

Describe in words and with A, B, h, and k, the **amplitude**, **period**, **horizontal shift** and **midline**.

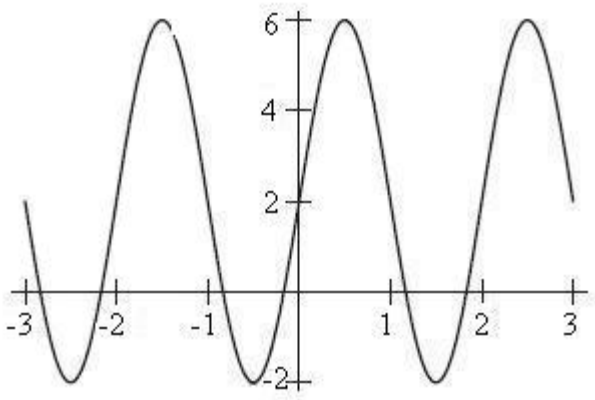
Check your understanding:

1. What is the **period** of $y = 5\sin(8t - 4) + 7$?

2. What is the **amplitude** of of $y = 8\cos(3t + 15) - 6$?

3. Find the **midline** of the function $y = \frac{6\cos(6t)-7}{2}$?

4. The formula for the following trigonometric function is $f(t) =$ _____ $\sin($ _____ $\pi t) +$ _____.



5. **Describe in words** how to obtain the graph of $f(t) = \sin(5t + 20) - 7$ from the graph of $y = \sin(5t)$.