

Name:

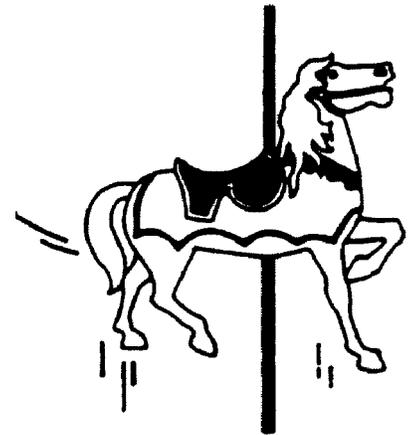
Partner:

Teacher:

Grand Ole Carousel

QUALITATIVE QUESTIONS

For the following questions, consider a horse that moves up and down.



1. Which horses, those on the inside or those on the outside, have the greatest tangential speed? Explain.
2. How does the angular speed of an outer horse compare to that of an inner horse?
3. While the ride is revolving at a constant angular speed, place a foam ball on the carousel. Describe the path that it takes.
4. What types of acceleration do people riding on the carousel experience?
5. Record the vertical Force Factor reading when ascending and descending.

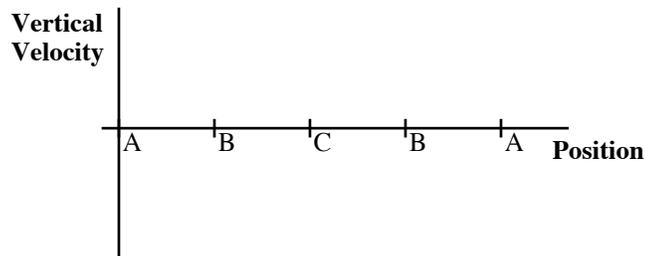
QUANTITATIVE QUESTIONS

NOTE: For the following questions, consider a horse that moves up and down, not the ones that stay in place.

1. Determine the time for:
 - a. One revolution of the carousel
 - b. One complete up and down cycle of a horse

2. Consider the diagram of the horse to the right. Assume that position A is the highest position of the horse, position B is the midpoint of the horse's motion and that position C is the lowest position of the horse.

- a. Sketch a graph of vertical velocity as a function of position on the set of axes below:



- b. Sketch a graph of vertical acceleration as a function of position on the set of axes below:

