CELEBRITY RACE

Accelerated 7th Grade Math

Name:_____

The Scenario

Ryan Seacrest, Snoop Dogg and Brittney Spears decide to have a celebrity race to raise money for charity. The race is going to be a quarter-mile long (1320 ft).

- ✓ Snoop Dogg begins at the starting line and runs at a rate of 6 feet per second.
- ✓ Ryan Seacrest gets a 1,000 foot lead and walks at 9 inches per second (he doesn't want to sweat because it could mess up his hair).
- ✓ Brittney Spears is easily confused. She gets a 1,200 foot lead, but runs back towards the starting line at a rate of 2 feet per second (but she did shave her head to reduce air resistance).

Your Assignment

1. Write equations for each of the runners as well as the one-minute mark and the finish line.
2. Complete the "Calculations" section, answering all of the questions thoroughly and **showing all work**. I recommend using the substitution method to solve.
3. Write a story about the race that contains the events on the calculations page and information in chronological order.

The Equations

Write equations for each of the runners, relating time t to distance from the starting line d. Also, include an equation for both the one minute mark and the finish line.

Snoop Dogg:_____

Ryan Seacrest: _____

Brittney Spears: _____

One Minute Mark: _____

Finish Line: _____

The Calculations

1. When will Snoop and Ryan pass each other and how far will they be from the starting line? (round to the nearest whole number)

Time: _____seconds

Distance From Start: _____feet

2. When will the Snoop and Brittney pass each other and how far will they be from the starting line? (round to the nearest whole number)

Time: _____seconds

Distance From Start: _____feet

3. When will the Brittney and Ryan pass each other and how far will they be from the stating line? (round to the nearest whole number)

Time: _____seconds

Distance From Start: _____feet

When you get the graph, do each of the following and then continue with the questions...

_____Label each axis with what it represents.
_____Draw and label each line with the name of the runner.
_____Label each point of intersection with its coordinate.

4. After one minute into the race, how far will each runner be? (round to the nearest whole number)

Snoop: _____feet

Ryan: _____feet

Brittney: _____feet

Look back at your graph...

_____Draw and label the vertical line that represents the one minute mark.
_____Label the new points of intersection with their coordinates.

5. When will the Brittney cross the starting line?

Time: _____seconds

6. When will Snoop and Ryan cross the finish line?

Snoop: _____

Ryan: _____

Look back at your graph...

_____Draw and label the horizontal line that represents the finish line (1,320 ft).
_____Label the new points of intersection with their coordinates.

The Story

You need to re-write the story about the Celebrity Race. Your story must include the following events and be in <u>chronological order</u>...

_____When will Snoop and Ryan pass each other?
_____When will the Snoop and the Brittney pass each other?
_____When will the Brittney and Ryan pass each other?
_____After one minute into the race, who is in first, second, and third place?
_____How long does it take the Brittney to pass the starting line?
_____Who will win the race?