

## The Great Race

Mika has three snails named Ernie, Bernie, and Clyde.

Ernie moves at a rate of 4 inches per minute.

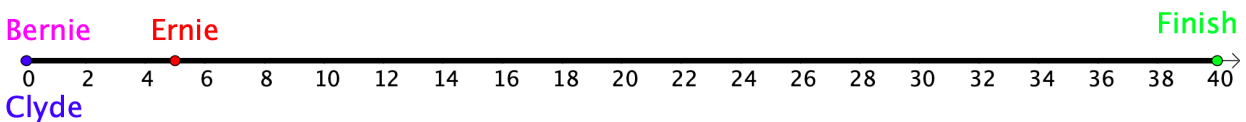
Bernie is a bit faster, and can move at 5 inches per minute.

Clyde is the fastest of the three snails, and moves at 6 inches per minute.

One day, Mika decides to have a snail race on the track shown below. To make it a fairer race, Mika does the following:

Ernie and Bernie start at the same time, but Ernie gets a head start of five inches.

Clyde starts at the same place as Bernie, but starts one minute later.



- If the finish line is at the 40-inch mark, which snail wins the race?
- Who is ahead after 3 seconds?
- How much time does it take Clyde to catch Ernie?
- How far has Clyde gone when he catches up to Ernie?
- For how much time is Bernie in the lead?
- If Mika wants Bernie to win, where should the finish line be?
- Graph this situation and make sure to label the axes.
- Based on your graph, write an equation for each snail.

Menu Questions

\*\*\*A few days later, Mika sets up another snail race. This time;

Bernie and Clyde start at the beginning but Bernie starts two minutes before Clyde.

Ernie starts at the same time as Bernie, but starts further down the track.

- a) If there is a three-way tie at the finish line, where did Ernie start the race?

