

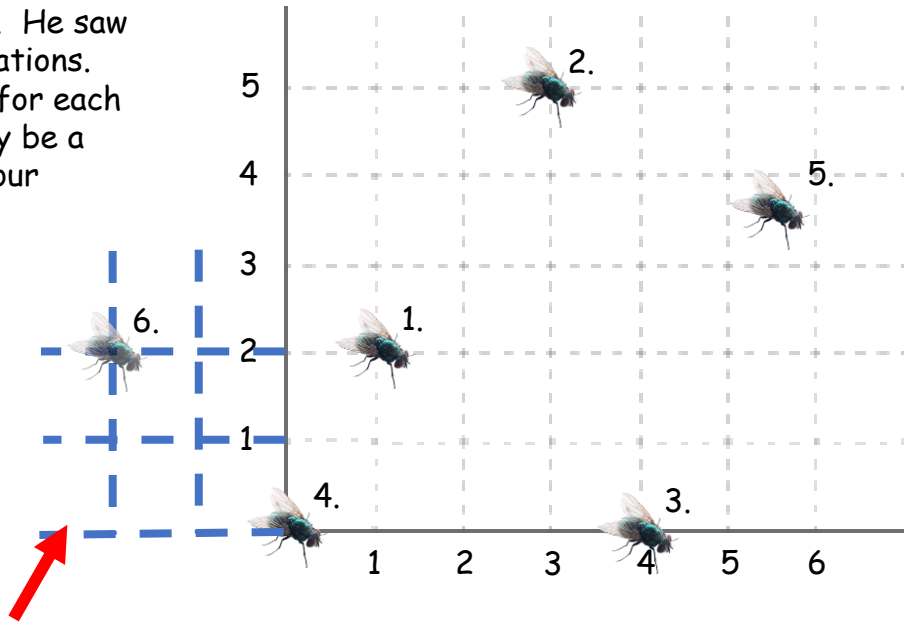
Name \_\_\_\_\_

Date \_\_\_\_\_

# STARBASE Hill Day 5 Review

1. Rene Descartes stared at his coordinate grid on his ceiling. He saw a fly land in the following locations. Write down the coordinates for each location. The 5<sup>th</sup> location may be a little tricky. (Don't forget your parentheses)

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_

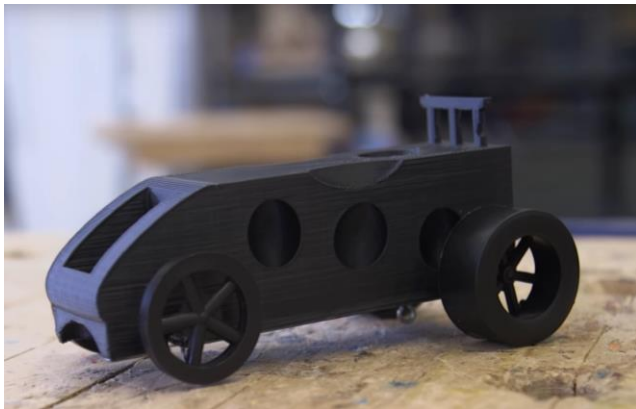


If a fly could have gone through the wall of Descartes ceiling for number 6, what quadrant would the fly be in and what would be the fly's coordinates be? \_\_\_\_\_

2. First, watch the YouTube video using the address to the left. Use your knowledge of fluid characteristics and Newton's Laws of Motion to answer these questions.

What specifically is forcing the cars down the track?

How is it accomplishing this?



<https://www.youtube.com/watch?v=10V4caHV7uA>

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3. The function (coding block) on the right can be found in the coding software of the Lego EV3 robots. What is this function and how can it be used when programming an EV3 robot?

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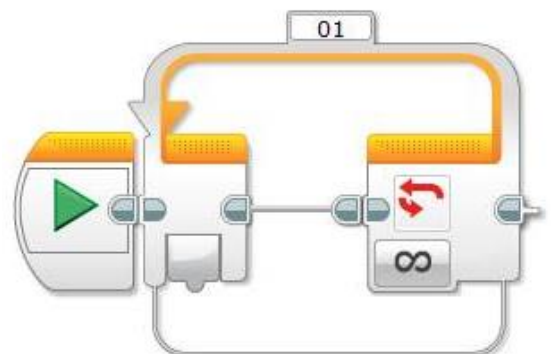
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Name \_\_\_\_\_

## STARBASE Hill Day 5 Review

1. Rene Descartes stared at the his newly marked ceiling for the morning. He noticed a fly land in the following locations. Write down the coordinates for each location. The 5<sup>th</sup> location may be a little tricky. (Don't forget your parentheses)

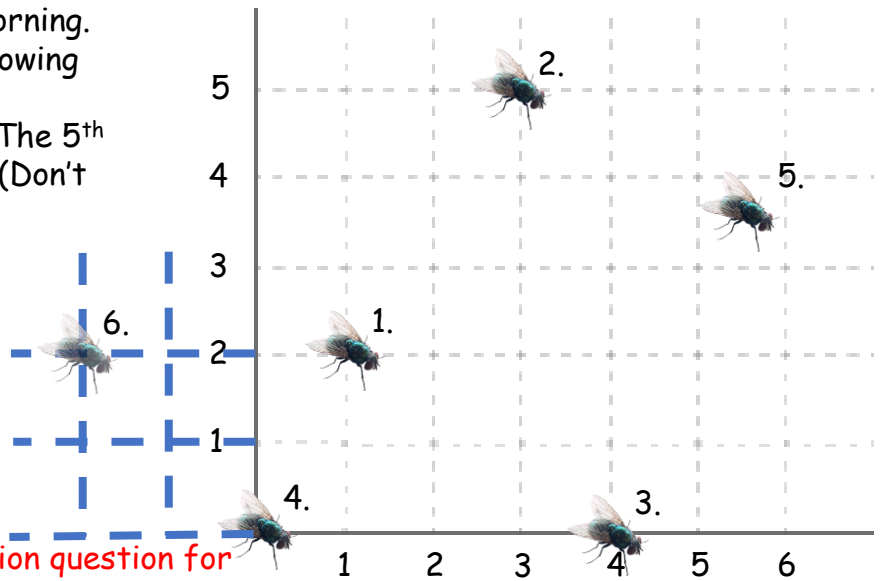
1. (1, 2)

2. (3, 5)

3. (4, 0)

4. (0, 0)

5. (5.5, 3.5) #5 is an extension question for them to think through



If a fly could have gone through the wall of Descartes ceiling for number 6. What would be the quadrant and coordinates of that fly? Quadrant II and (-2, 2)



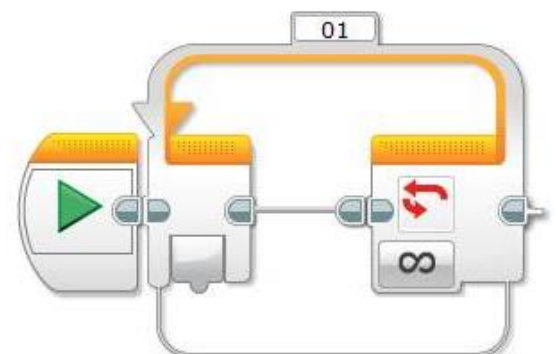
<https://www.youtube.com/watch?v=10V4caHV7uA>

2. First, watch the video with the address to the left. What specifically is making the cars race down the track and how is it accomplishing this? Use your knowledge of fluid characteristics and Newton's Laws of Motion to answer these questions.

Here, the students should write something about compressed gas exploding out the pierced end of the container. From this point it pushes against the outside

air propelling the car down the track (Newton's 3<sup>rd</sup> Law of Motion). If they mention anything about this process taking place inside the front of the container, they are well advanced and on their way to true rocket science.

3. The function (coding block on the right can be found in the coding software of the Lego EV3 robots. What is this function and how can it be used when programming an EV3 robot?



This is the "Loop" function used to compile a sequence of blocks as if it is one block. When this block is used in a sequence of coding, all commands within the "Loop" block will be engaged for as many cycles as annotated on the "Loop" block.