

【Question】

Ayaka wanted to know how much the unicycle would travel each time the tire rotates, so she observed the number of rotations and the length of the unicycle tire and summarized it in the table below.

The number of revolutions of a unicycle tire and the length of time it has traveled.

Ayaka looked at the table and realized that the length of the distance traveled is proportional to the number of revolutions of the tire. Using this fact, she decided to use a unicycle to find the length of one lap around the playground track.

After one lap around the track, it made exactly 120 revolutions.

- 1.
- 2.
- 3.
- 4.

【Explanation】

And now for problem (2).

Ayaka wanted to know how far the unicycle would go with each rotation of the tire, so she looked up the number of rotations of the tire and the length of rotation.

I would like to measure the length of tire that travels in one rotation.

First decide on the starting line. Make one rotation.

So far this is the length of one rotation. The length of this one lap is the length of one of these tires

I've just taped the tire. I would like to peel one lap. This is the length of one tire lap. So, let's compare. It will be exactly the same length.

This is not directly related to this problem, but do you all remember how to find the circumference of a circle? Yes, that's right. You can find the circumference of a circle by "diameter x 3.14".

Let's return to the problem. Here is a table that summarizes the number of rotations of the tire and the length traveled, as examined by Ayaka.

“The length traveled is proportional to the number of rotations of the tires.”

For example, let's say you want to stack wooden blocks of the same size. If you increase the number of blocks, the height of the blocks will also increase. The point is how it changes. When you double or triple the number of blocks, the height also changes. When two quantities change in proportion to each other, and one of them doubles or triples, the other also doubles or triples in proportion to it, this is called a proportional relationship.

Now let's get back to the table. When the number of rotations of the tire doubles or triples, which is a bit complicated to calculate, but the length is also doubled or tripled. Indeed, there seems to be a proportional relationship between the number of rotations of this tire and the length traveled. Now, in this problem, Ayaka ran down the track, and since she made 120 revolutions, we need to find the length of time she traveled and at the end of the calculation Find the length at the time of 120 lap. The number of revolutions of the tire is 120 times greater than the number of revolutions from 1, so the length of the journey is also 120 times greater. So, we can find the distance travelled by 157×120 . The answer is here. There are many

kind of examples in our daily life. For example, when you go to a sushi restaurant and eat a plate of sushi for 100 yen, the number of plates and the price are the same. I'm sure there are many examples related to proportion around you, so why don't you look for them?