

**NUMBER LINES, FRACTIONS AND
KNOWING HOW FAR**



DID YOU EVER WONDER

WHAT GOOD ARE FRACTIONS?



WHAT GOOD
ARE NUMBER
LINES?



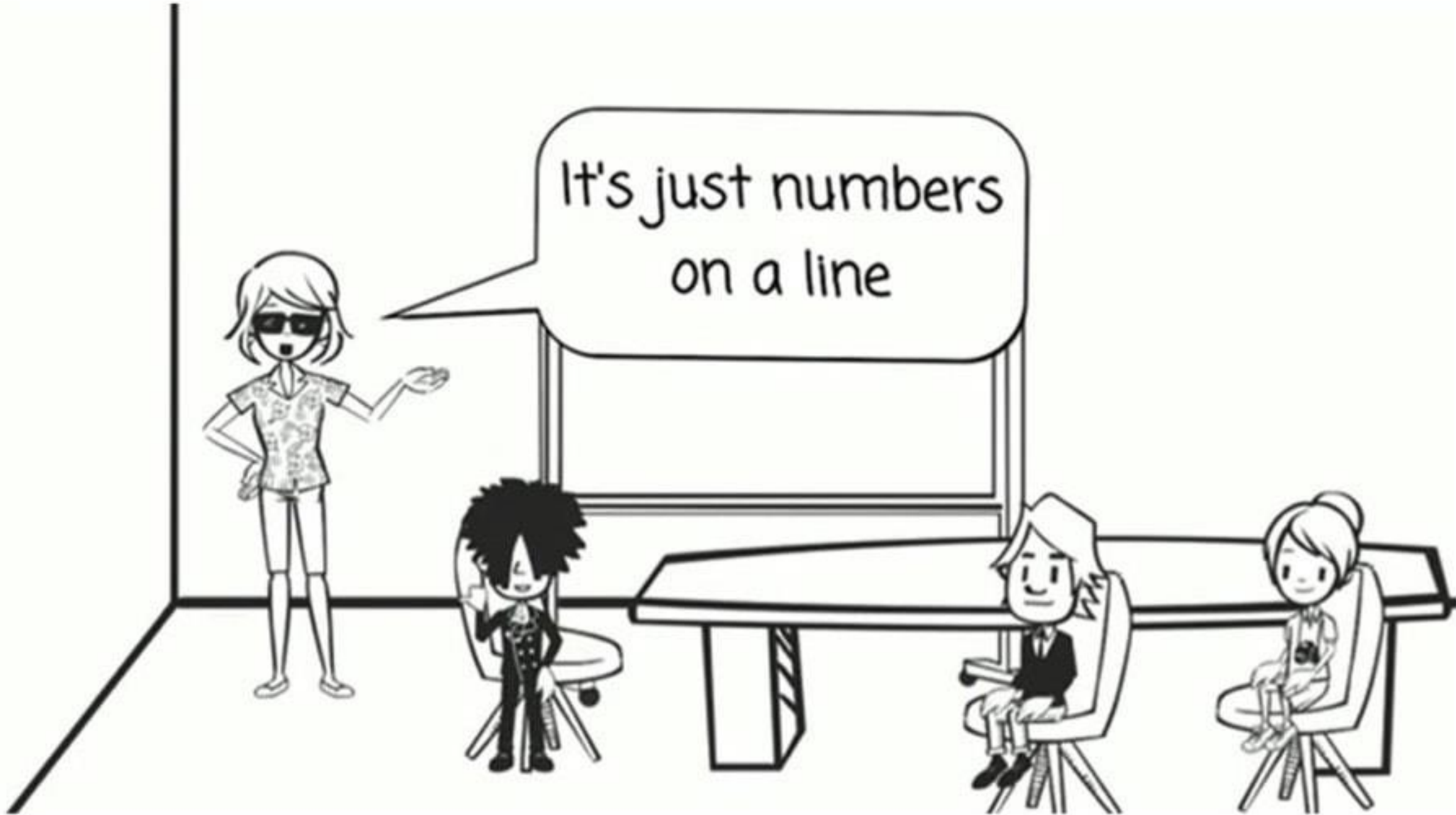


LET'S GO BACK IN TIME



WHAT'S A
NUMBER LINE?





It's just numbers
on a line

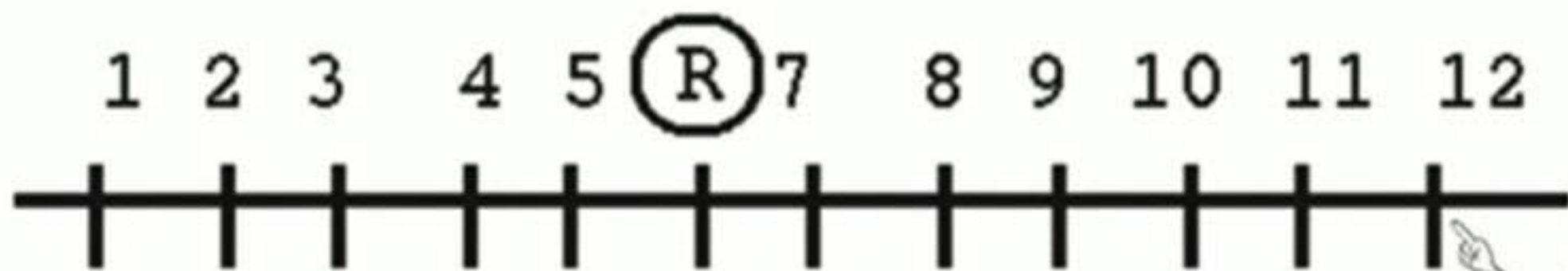
1 2 3 4 5 6 7 8 9 10 11 12



Just numbers on a line

**LET'S
WARM UP**



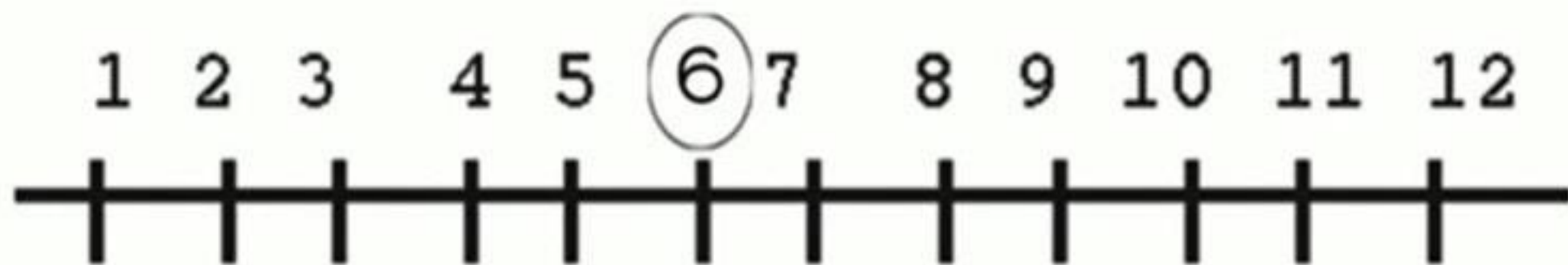


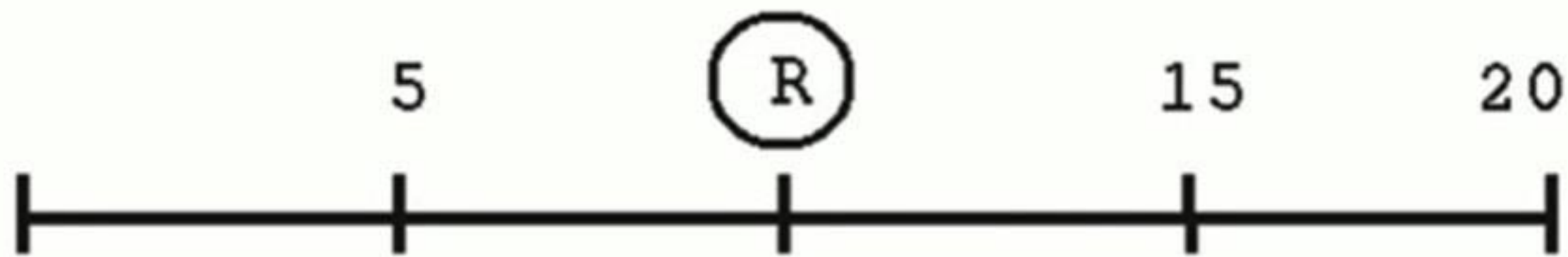
Which number is at point R ?



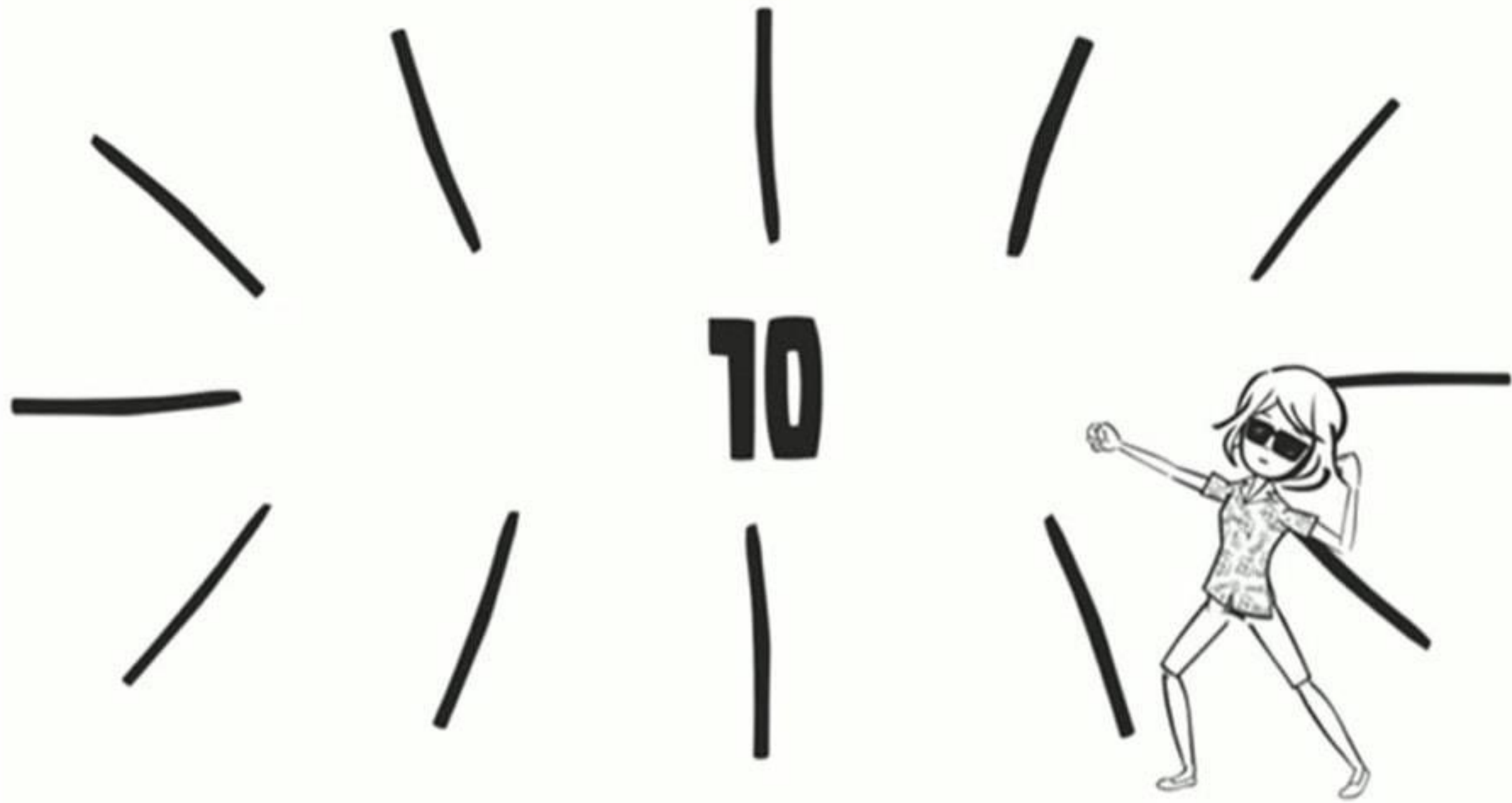
Did you say 6?

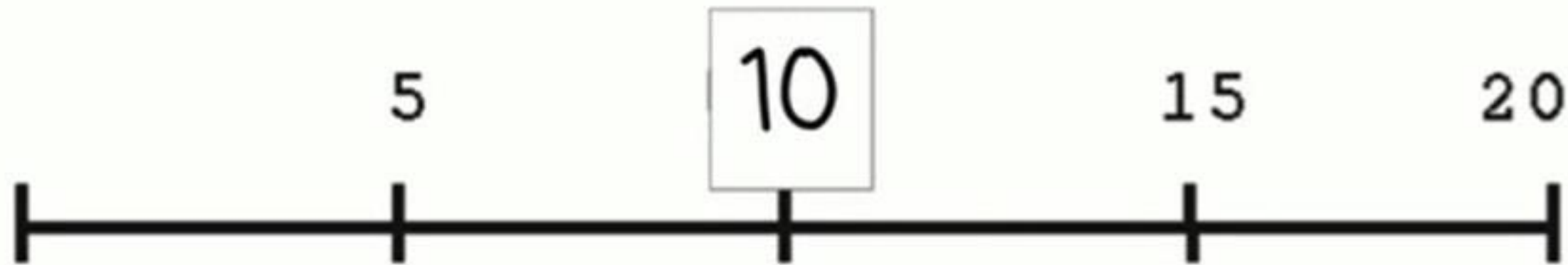




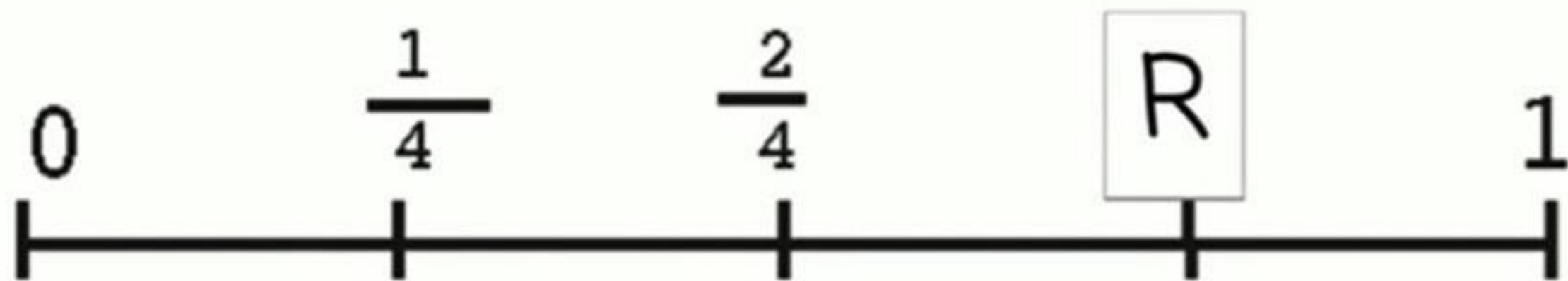


Which number is at point R now ?

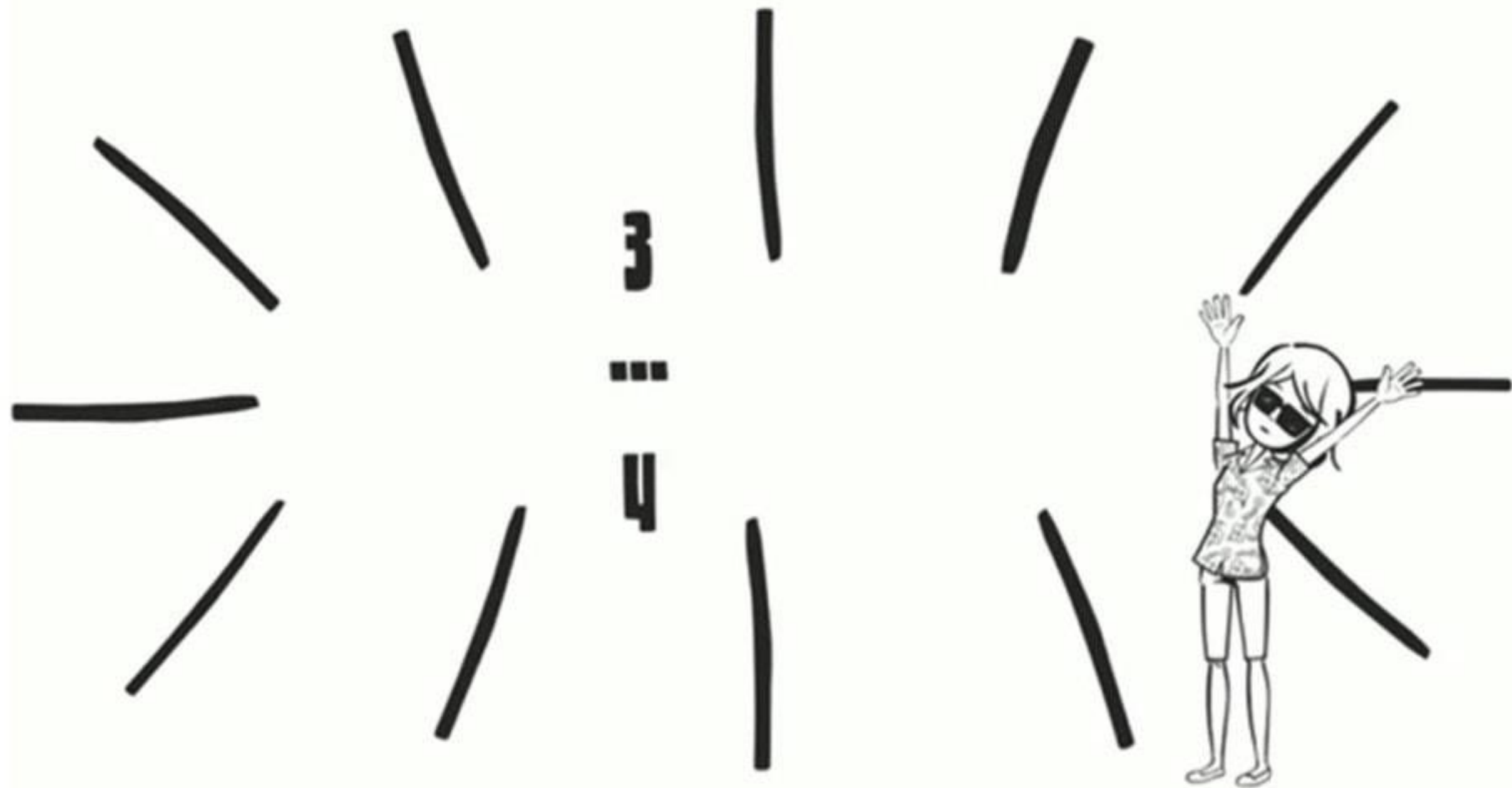


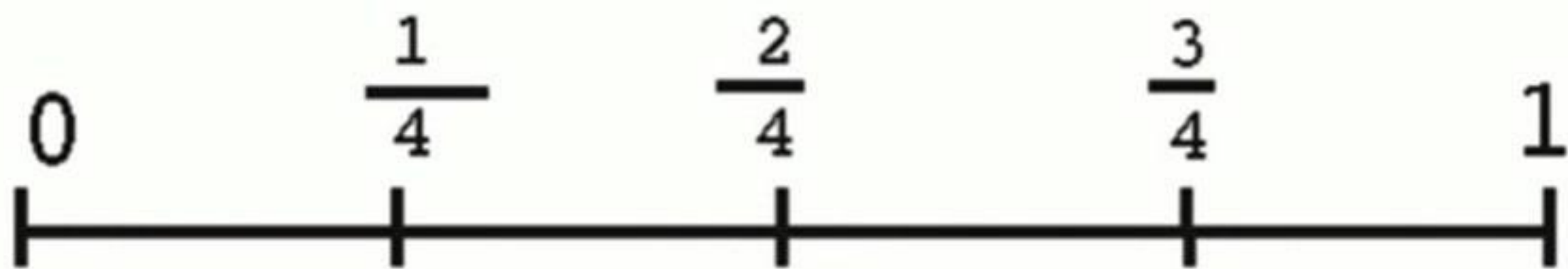


There it is! 10!
On the number line.



How about now?
What number is point R?





What does it matter?



Well, have you ever
wondered ...



HOW LONG

UNTIL WE GET
SOMEWHERE?

IS IT

MY
TURN ?

IS IT

FAIR ?

Let's do an example



3 of you are traveling
9 miles to meet your cousins



Only 2 of you can fit in the canoe, so
each of you will have to run part of the way



When is it your turn to get out and run?



An illustration of a Native American man standing in a forest. He has dark skin, black hair in a braid, and wears a tan tunic and leggings with a feathered headdress. A speech bubble points to him. In the background, there are green pine trees, a blue sky with clouds, and a raccoon lying on the grass to the right.


THIS is a fraction question.

2 out of 3 people will be paddling




$\frac{2}{3}$ of the people will be paddling



A cartoon illustration of a Native American man standing in a lake. He is wearing a feathered headdress, a necklace, and a loincloth. A speech bubble points to him from the right. The background features a forest of green trees, blue mountains, and a blue sky with white clouds. A small rock is visible in the water near the man.

$\frac{1}{3}$ of the people
will be running

A cartoon illustration of a Native American man standing in a lake. He is wearing a feathered headdress, a necklace, and a loincloth. A speech bubble points to him from the left, containing the text "You will run 1/3 of the time." The background features a blue sky with white clouds, blue mountains, and a green forest of evergreen trees.

You will run $\frac{1}{3}$
of the time.

When is it your
turn to run?



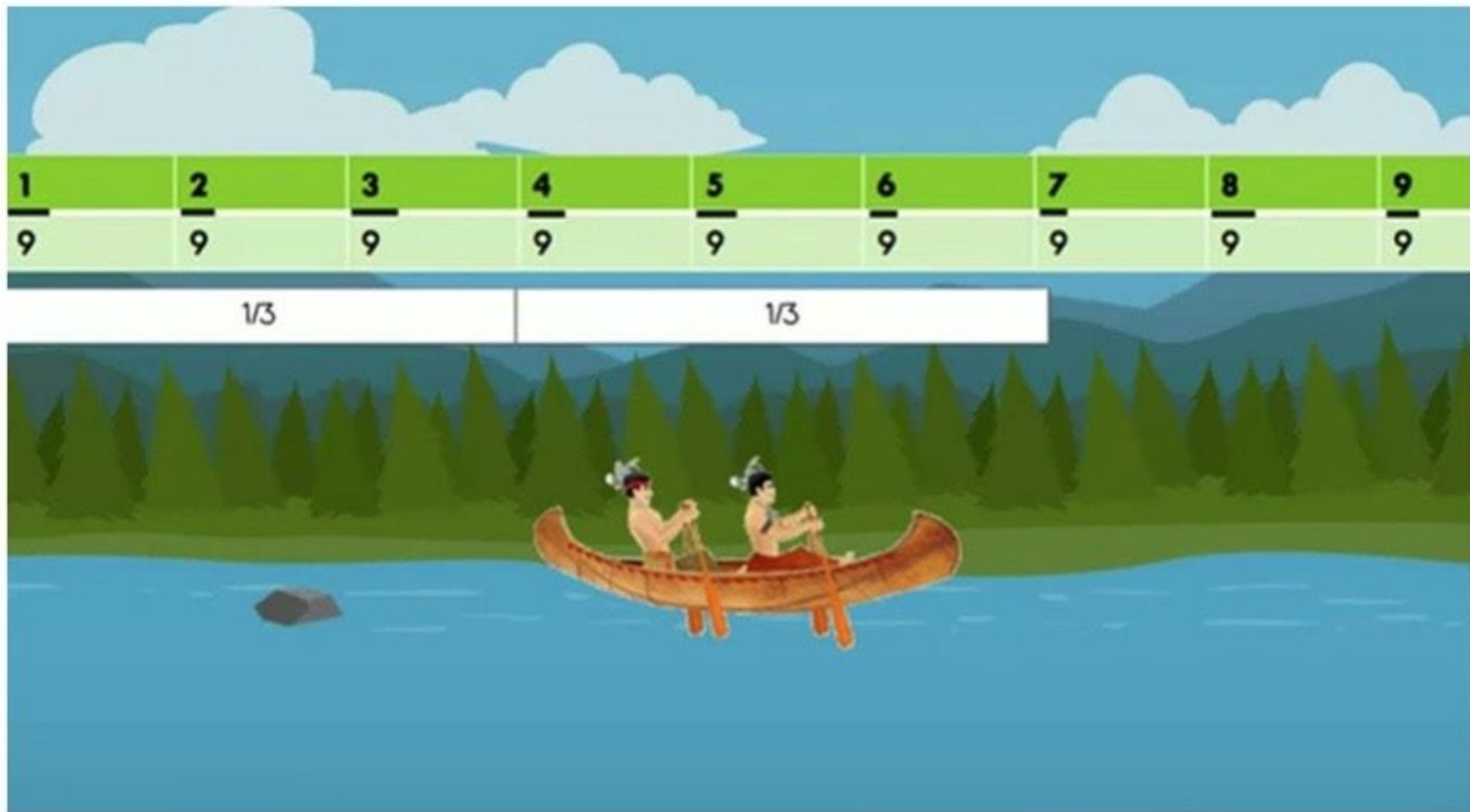
$\frac{1}{9}$	$\frac{2}{9}$	$\frac{3}{9}$	$\frac{4}{9}$	$\frac{5}{9}$	$\frac{6}{9}$	$\frac{7}{9}$	$\frac{8}{9}$	$\frac{9}{9}$
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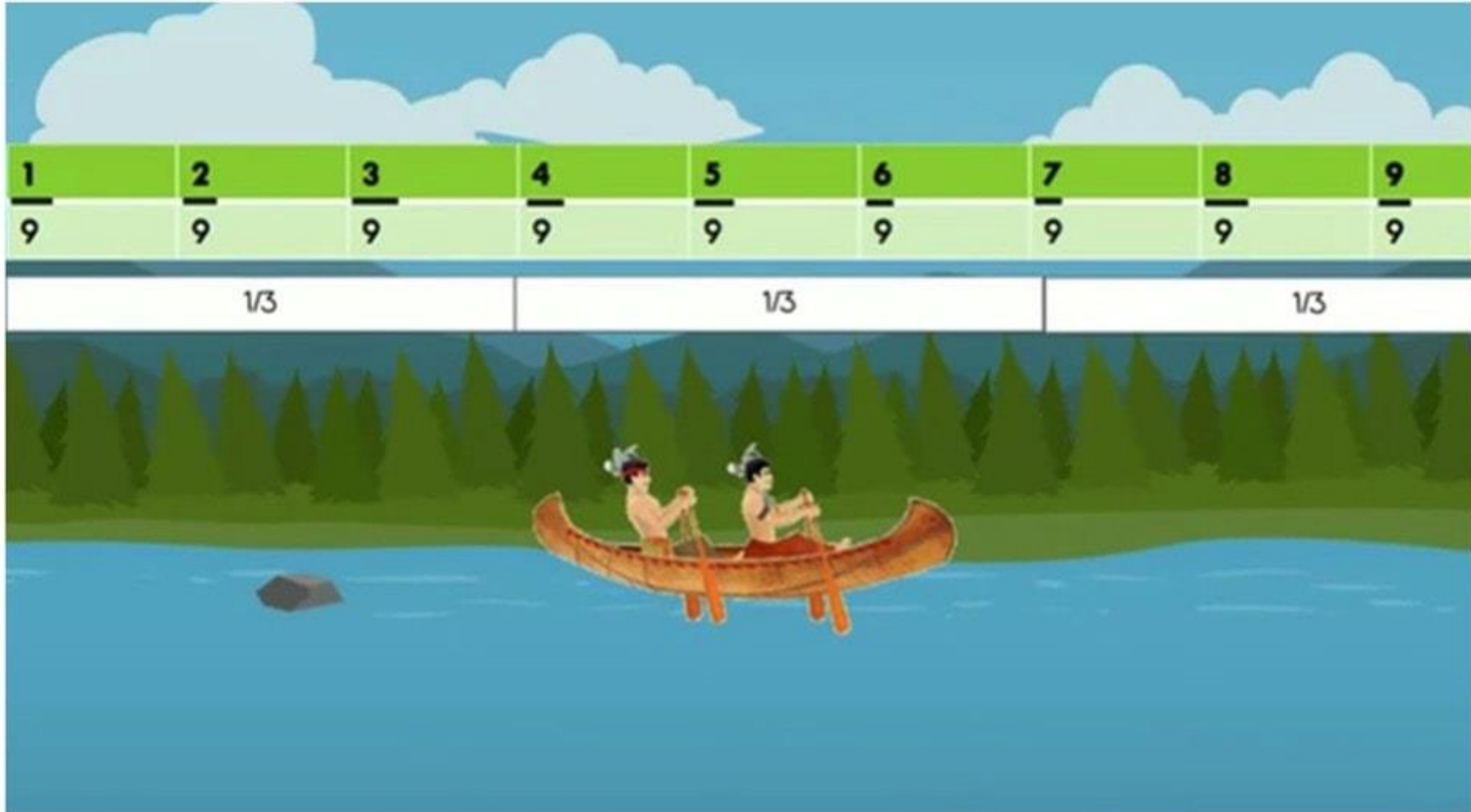


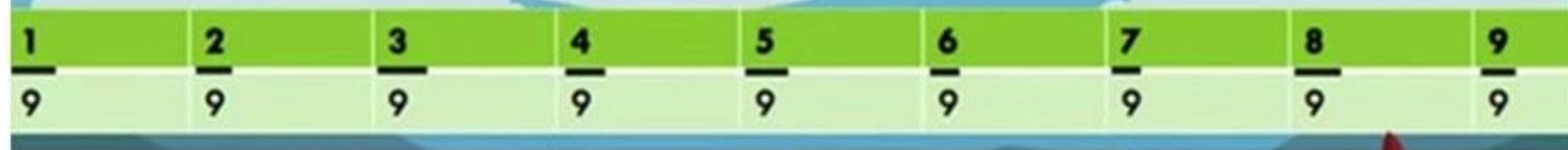
Answer with a number line.

$\frac{1}{9}$	$\frac{2}{9}$	$\frac{3}{9}$	$\frac{4}{9}$	$\frac{5}{9}$	$\frac{6}{9}$	$\frac{7}{9}$	$\frac{8}{9}$	$\frac{9}{9}$
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$\frac{1}{3}$

$\frac{1}{3}$

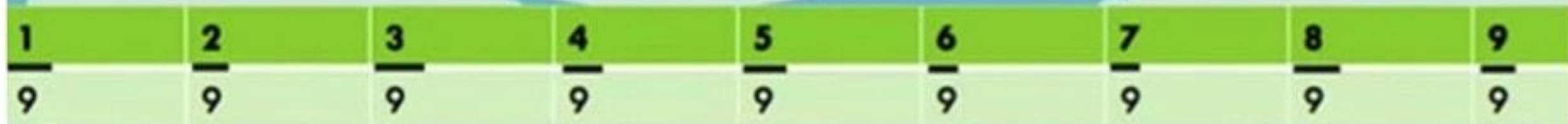
$\frac{1}{3}$

If you each ran for 3 out of the 9 miles, that would be fair

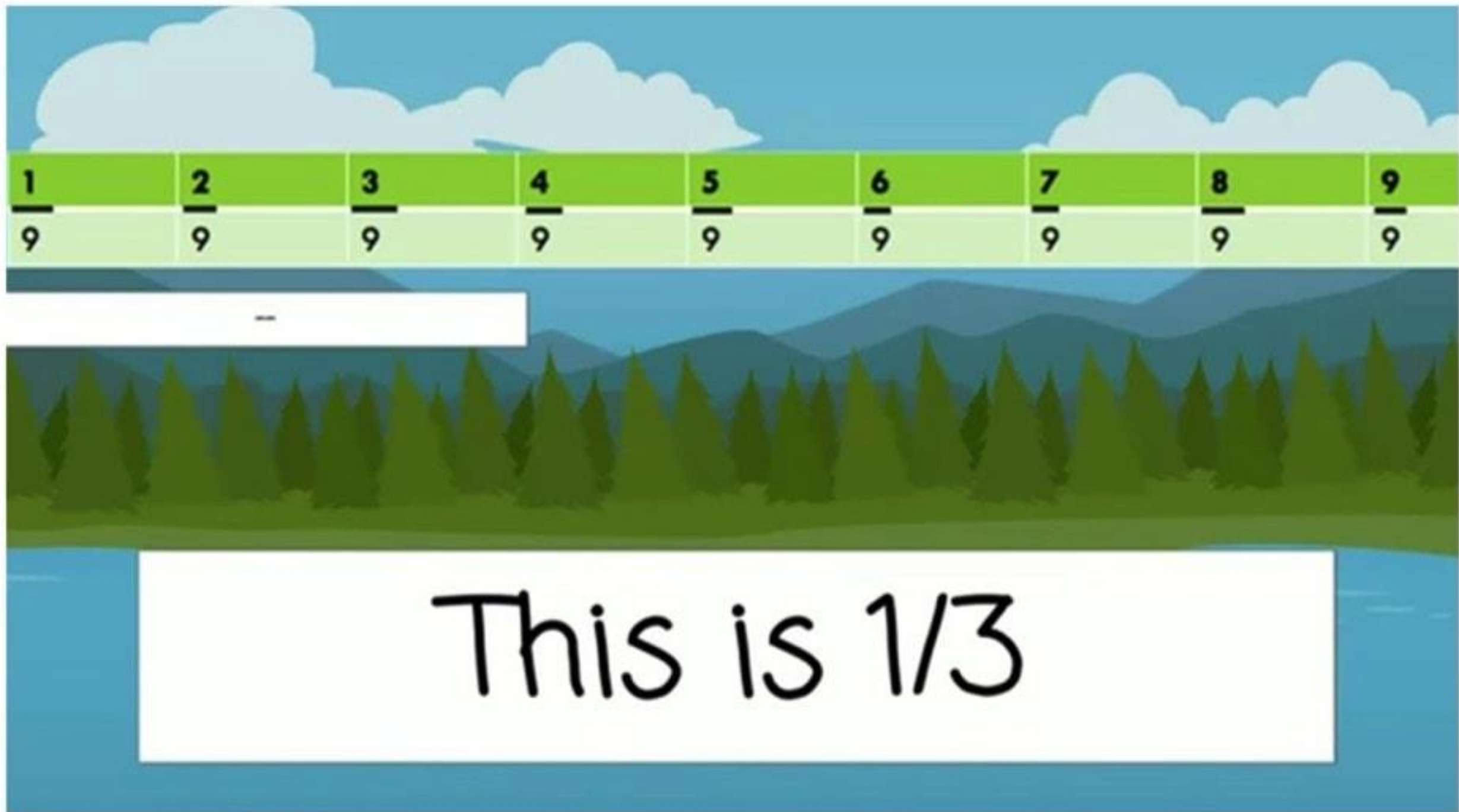


An illustration of two Native American children standing in a forest of tall evergreen trees. The child on the left is a girl with dark hair, wearing a yellow dress and a feathered headband. The child on the right is a boy with dark hair, wearing a yellow tunic and pants, also with a feathered headband. A speech bubble originates from the girl, containing the text 'People are different.' The background shows a blue sky with clouds and distant mountains.

People are different.



Fractions can be different, too.





$\frac{1}{9}$	$\frac{2}{9}$	$\frac{3}{9}$	$\frac{4}{9}$	$\frac{5}{9}$	$\frac{6}{9}$	$\frac{7}{9}$	$\frac{8}{9}$	$\frac{9}{9}$
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1/9

2/9

3/9

This is 3/9

A cartoon illustration of a Native American woman standing in a forest. She has dark skin, long black hair, and is wearing a yellow dress with a fringed hem and a white necklace. A feather with a red tip is in her hair. She is standing on a green grassy field with several large, dark green evergreen trees in the background. A white speech bubble with a black outline is positioned to her right, containing the text "Guess what?".

Guess what?

$\frac{1}{9}$	$\frac{2}{9}$	$\frac{3}{9}$	$\frac{4}{9}$	$\frac{5}{9}$	$\frac{6}{9}$	$\frac{7}{9}$	$\frac{8}{9}$	$\frac{9}{9}$
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$$\frac{1}{3} = \frac{3}{9}$$





