Y3 M4d Can place $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, etc. on a number line

Commissioned by The PiXL Club Ltd.
August 2018

Teachers' Notes

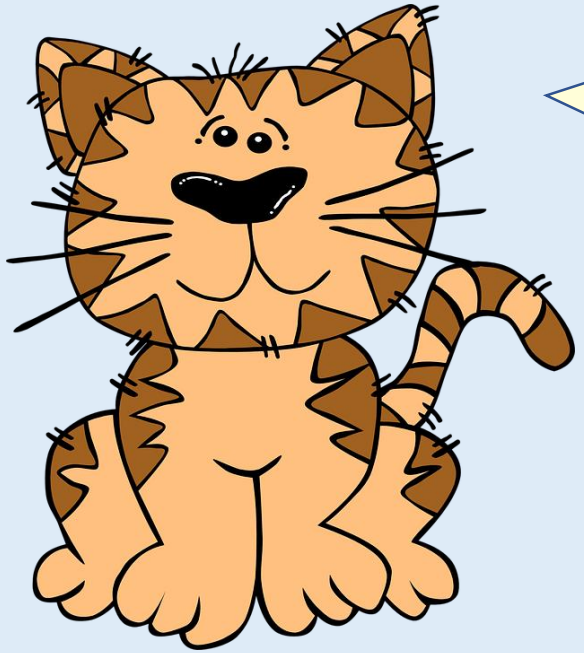
- ❑ The purpose of the priority therapies is to support the teaching of fundamental concepts for the year group.
- ❑ The therapies can be taught to a whole class or a target group. Year 3 therapies are designed to take approximately 30 minutes. However, this is flexible: it may be that only part of the therapy is taught or it could, of course, be adapted or extended.
- ❑ A vocabulary slide is included in each therapy. This identifies key words which relate to the taught concept along with a link to the 'Vocabulary Shorts' on PrimaryWise (20 activities to develop vocabulary). The intention is that the therapy begins with explicit teaching of this vocabulary.
- ❑ The therapy adopts the 'Teach, model and apply' process with plenty of opportunities for pupils to demonstrate the taught skill.
- ❑ Problem solving and reasoning activities are an integral part of each therapy.

Vocabulary: fractions

fraction
quarter
numerator
denominator
equivalent

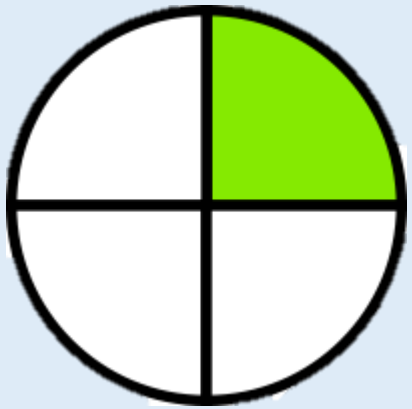
Please select an activity from the 'Vocabulary Shorts' to develop understanding of the key vocabulary.

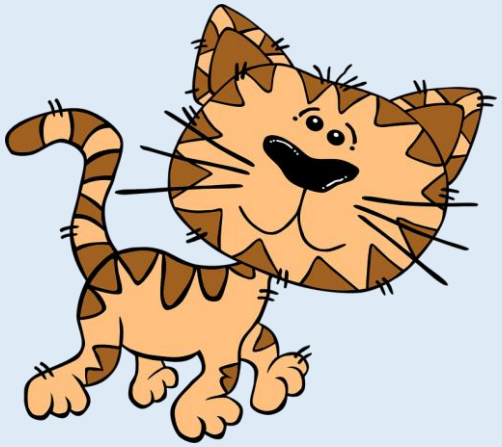
Teach



How can I write a **quarter** as a **fraction?**

Teach

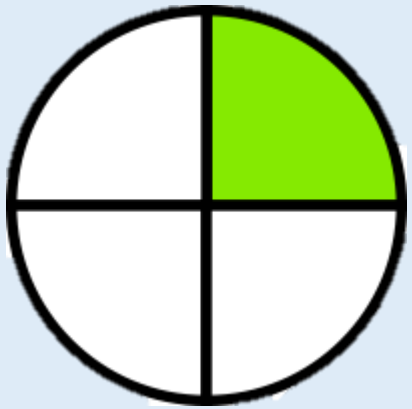


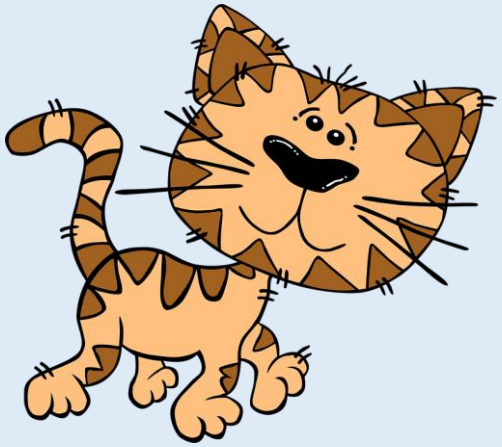


$\frac{1}{4}$ shows my whole is divided into four equal pieces and I have one piece.

$\frac{1}{4}$

Teach



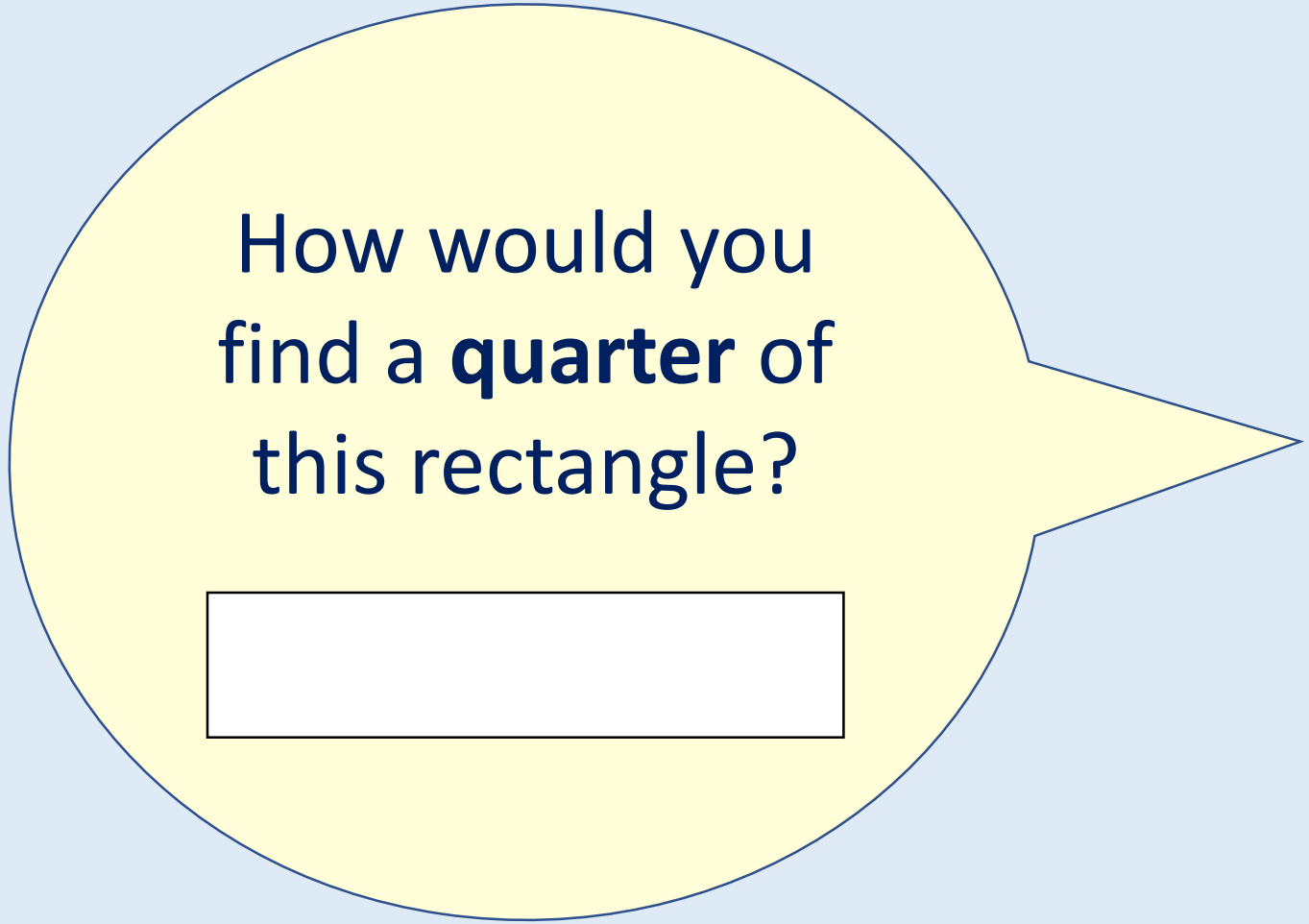


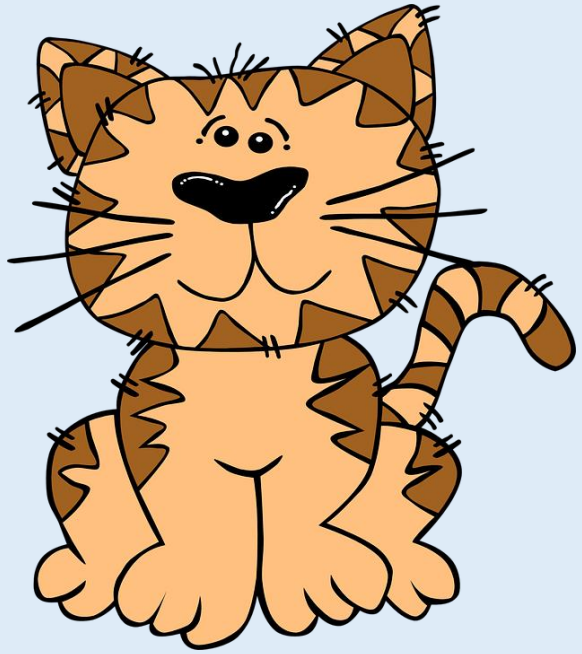
We call the top number the **numerator** and the bottom number the **denominator.**

$$\frac{1}{4}$$

Teach

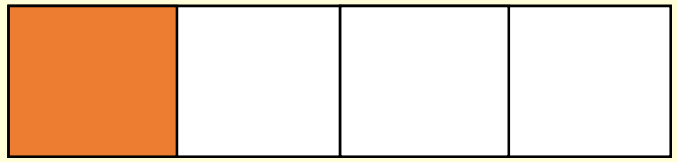
How would you find a **quarter** of this rectangle?

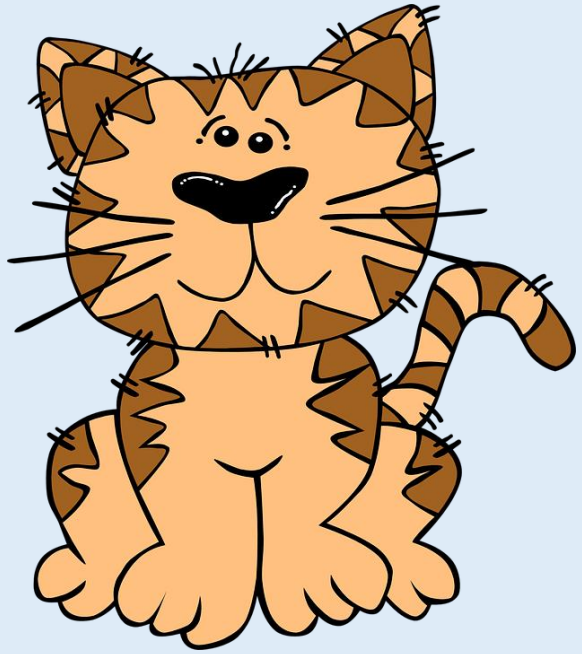




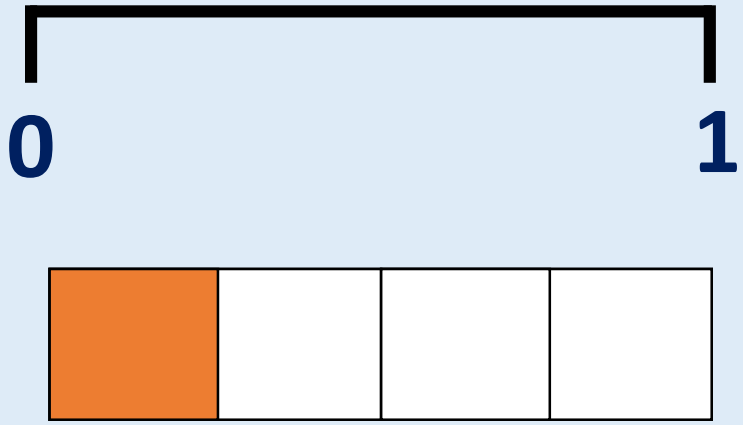
Teach

We need to split the rectangle into **4 equal parts.**

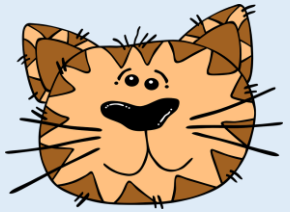




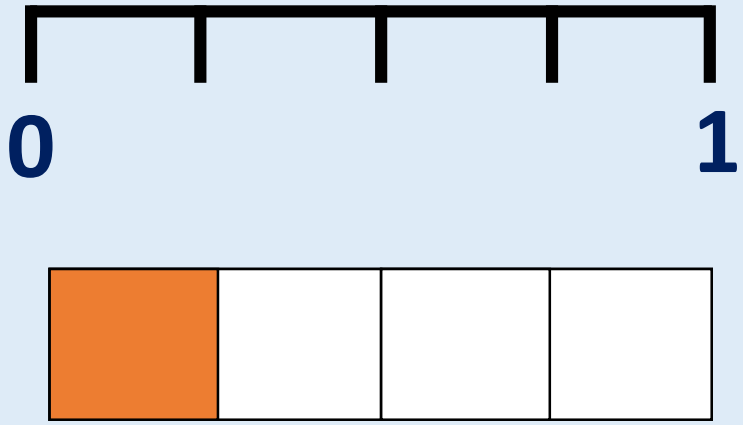
Model



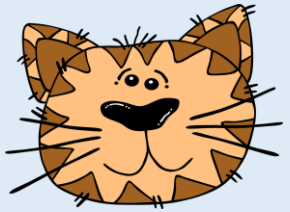
Keeping this in mind, where do you think a **quarter** of 1 would be on a number line?



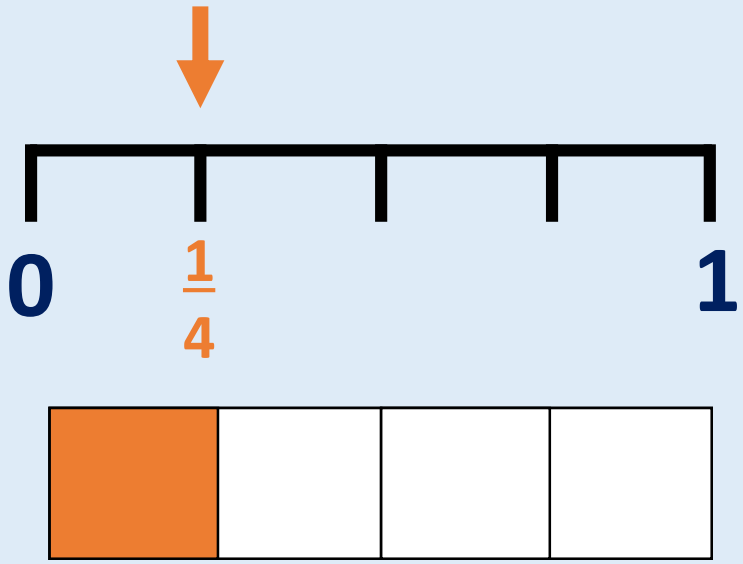
Model



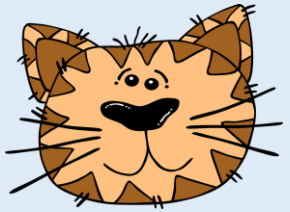
We split the number line between 0 and 1 into 4 equal parts…



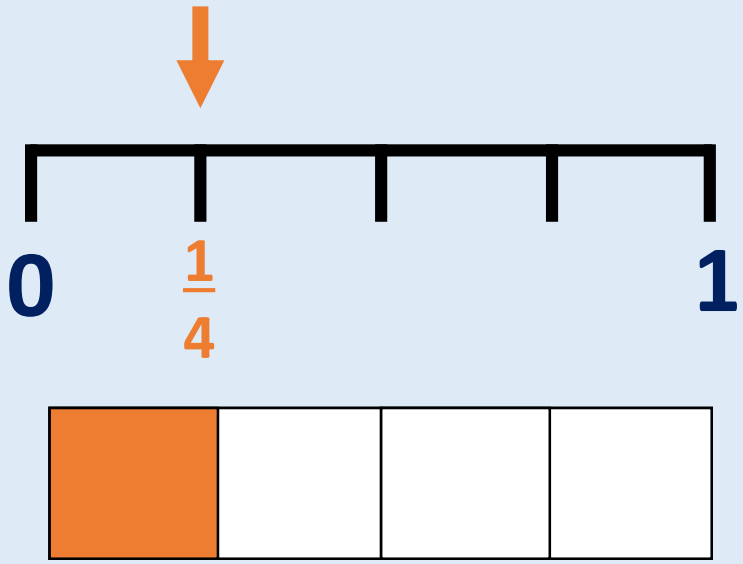
Model



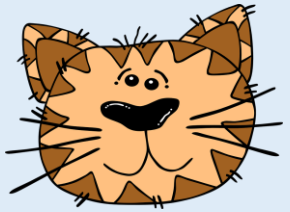
We can see 4 equal parts and $\frac{1}{4}$ is labelled.



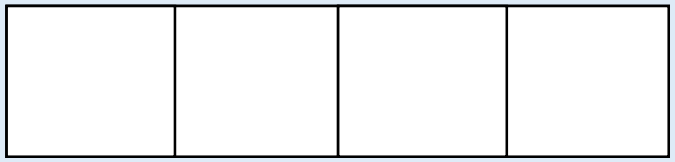
Model



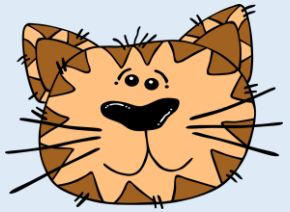
And **one quarter** would be one part away from 0!



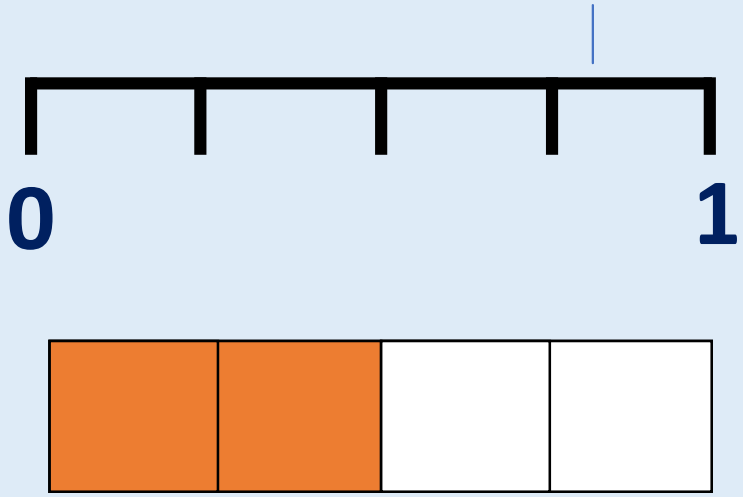
Model



Shade half of the rectangle. How many **quarters** is this **equivalent** to?

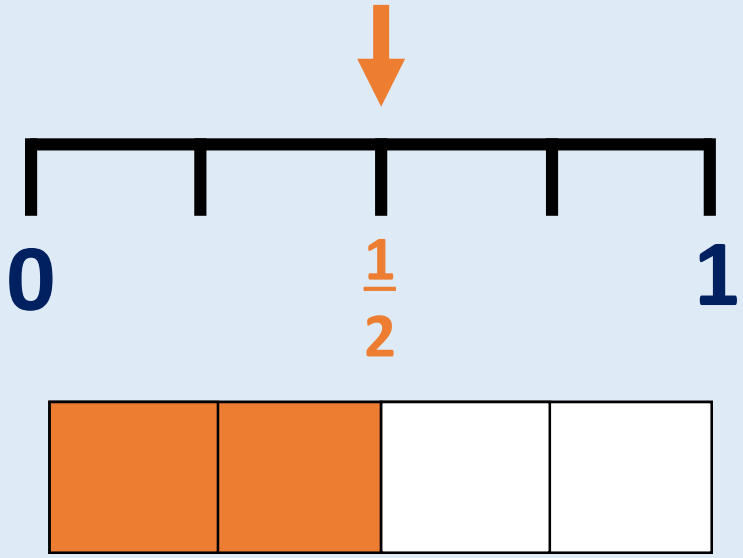


Model

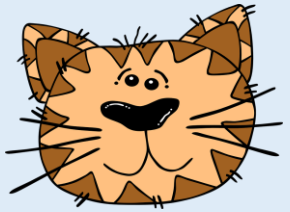


One half is the same as **two quarters.** Where do you think $\frac{1}{2}$ fits on our number line?

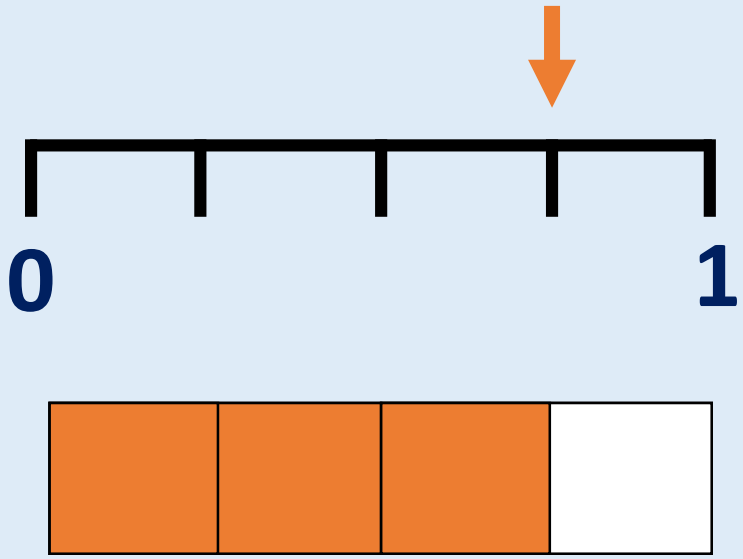
Model



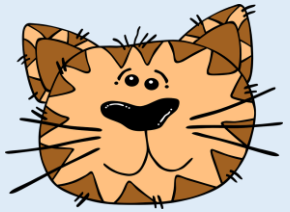
You're getting the hang of this!



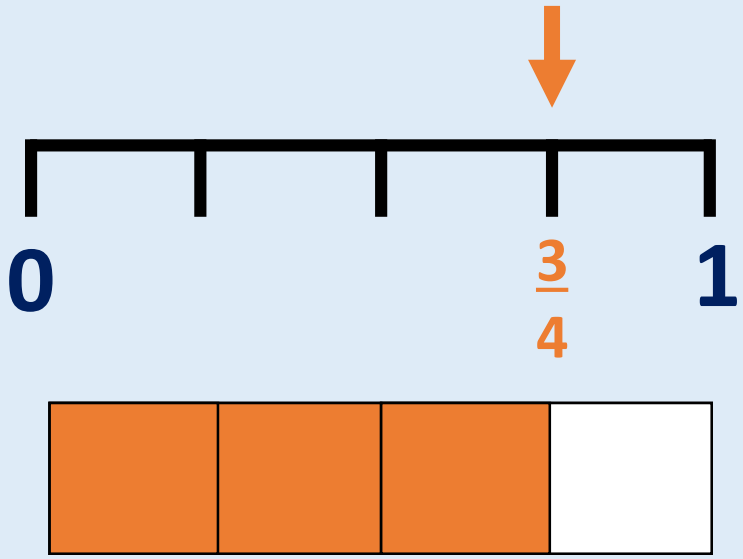
Model



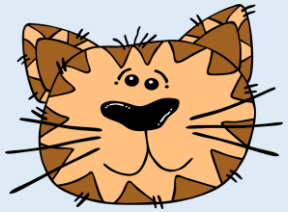
What **fraction** does this line show? Think about how much is shaded on the rectangle.



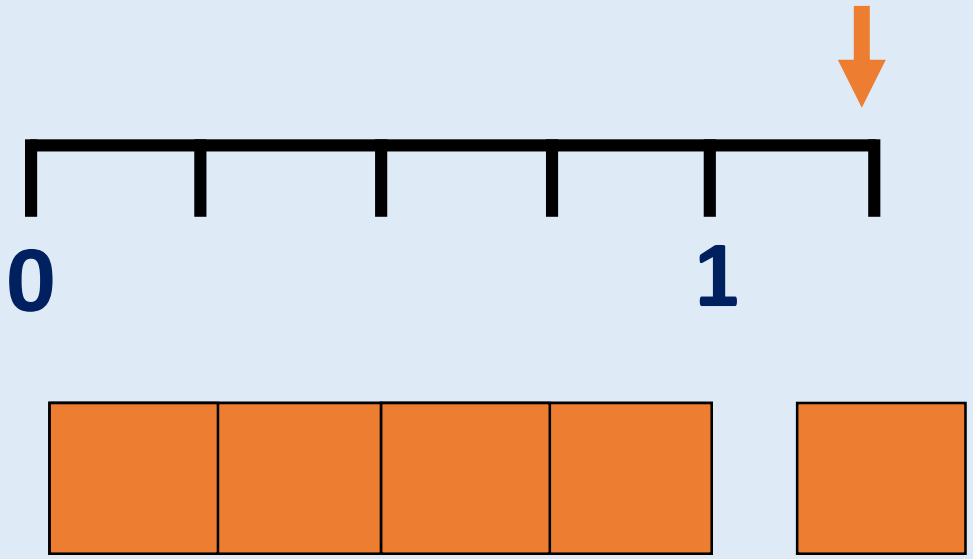
Model



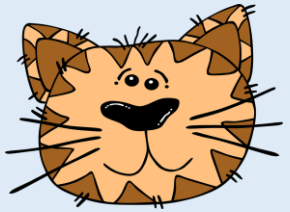
It's **three quarters!**



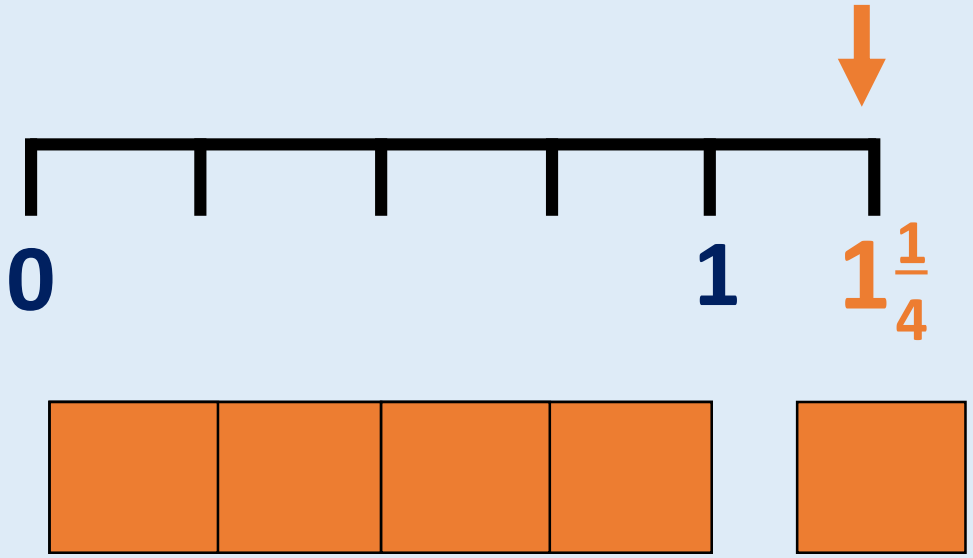
Model



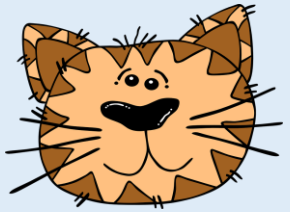
What do you think comes next on the number line if we are counting in **quarters?**



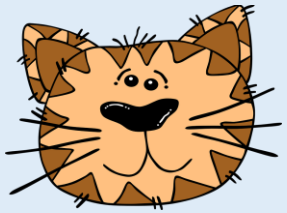
Model



We say this as "**one and a quarter**". We can keep going forever!

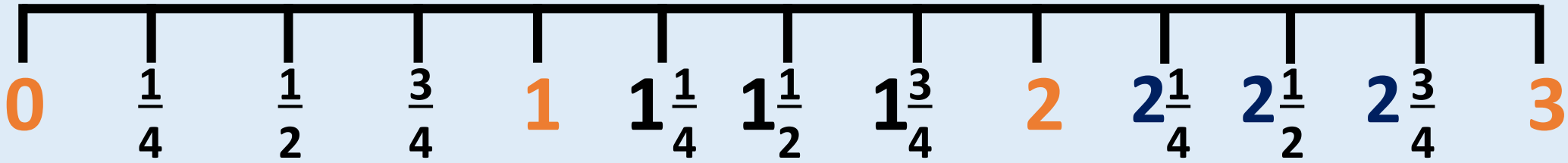


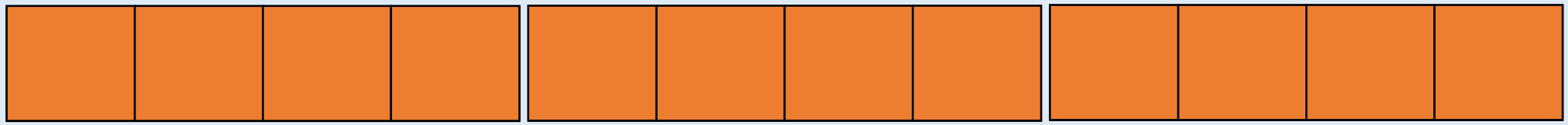
Model



Let's say the fractions on the number line out loud…

Teacher notes: Click to reveal the visual aid one quarter at a time as you count.





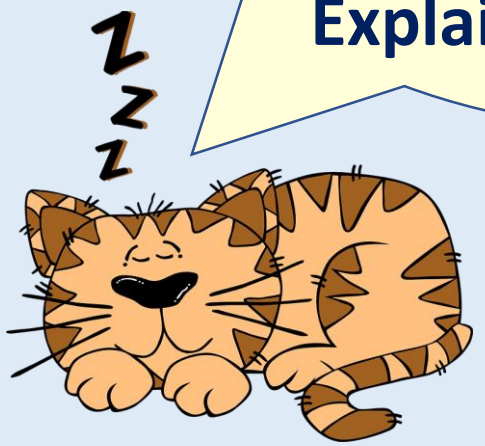
What comes next?

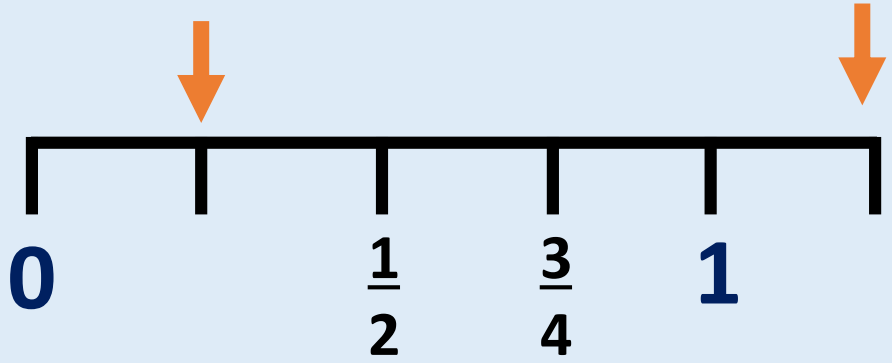
Apply

I'm too tired to finish my number line!

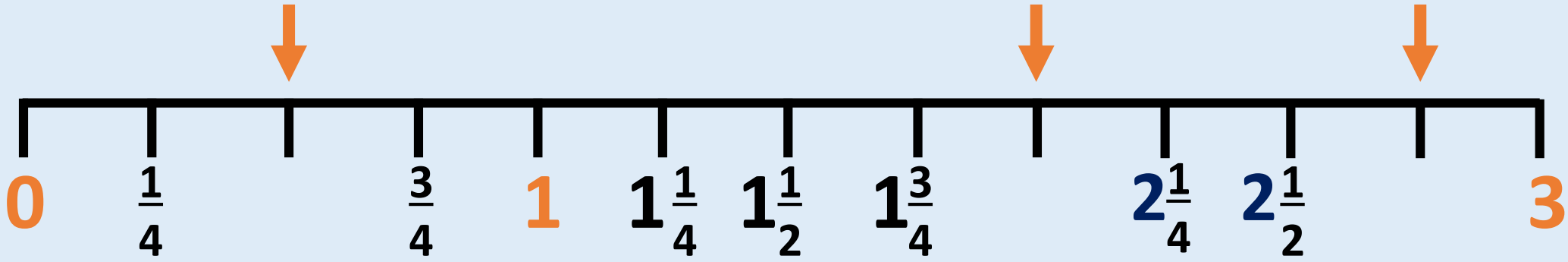
What are the missing gaps?

Explain how you know.



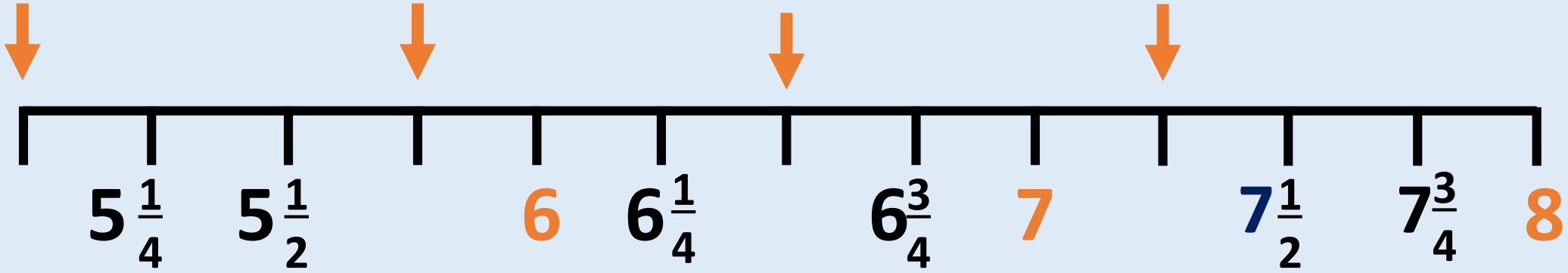


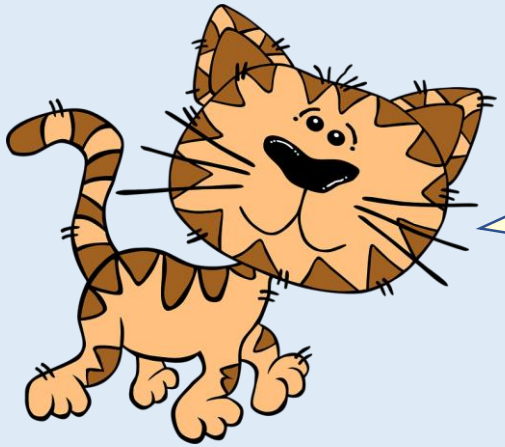
Apply



I'm too tired to finish my number line! What numbers are missing? **Explain** how you know.

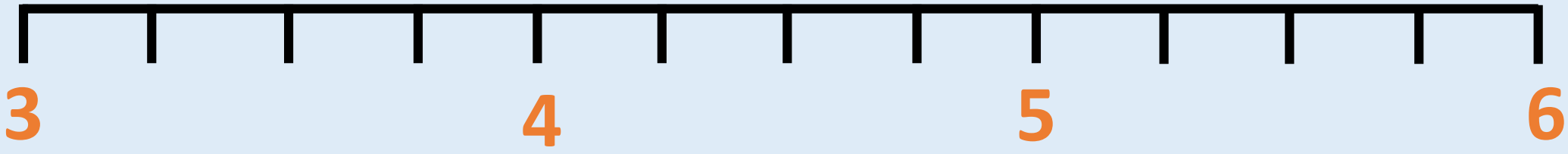
Apply



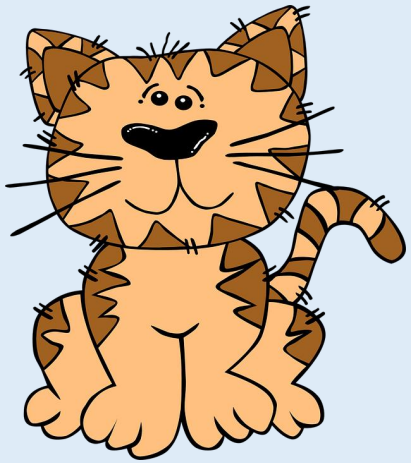


This number line has **larger** numbers! Can you find the missing values?

Apply



Where would these **fractions** go on our **number line**?

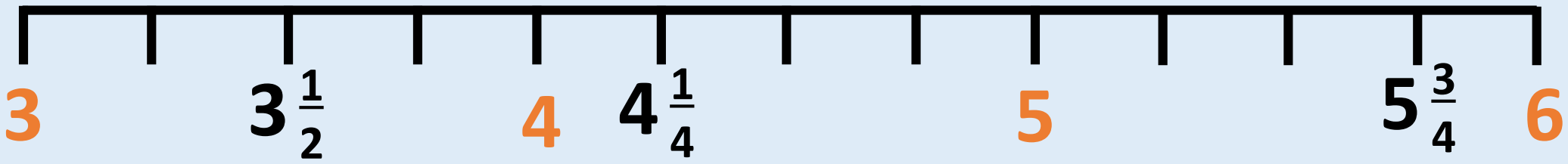


$4\frac{1}{4}$

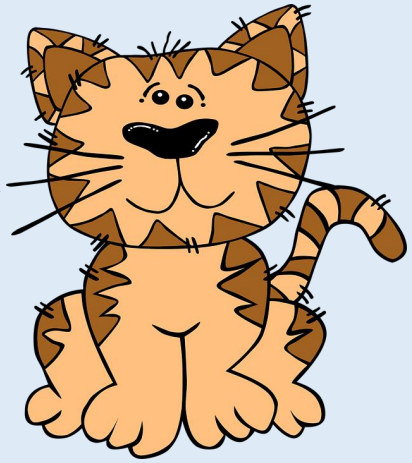
$5\frac{3}{4}$

$3\frac{1}{2}$

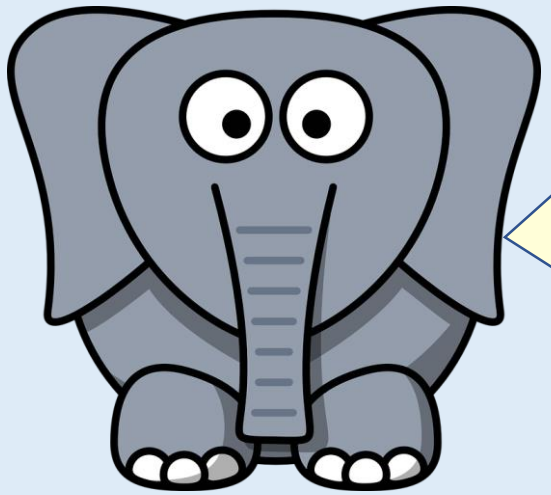
Apply



Did you get your answer correct?



Evaluate



Can you place quarters and halves on a number line?