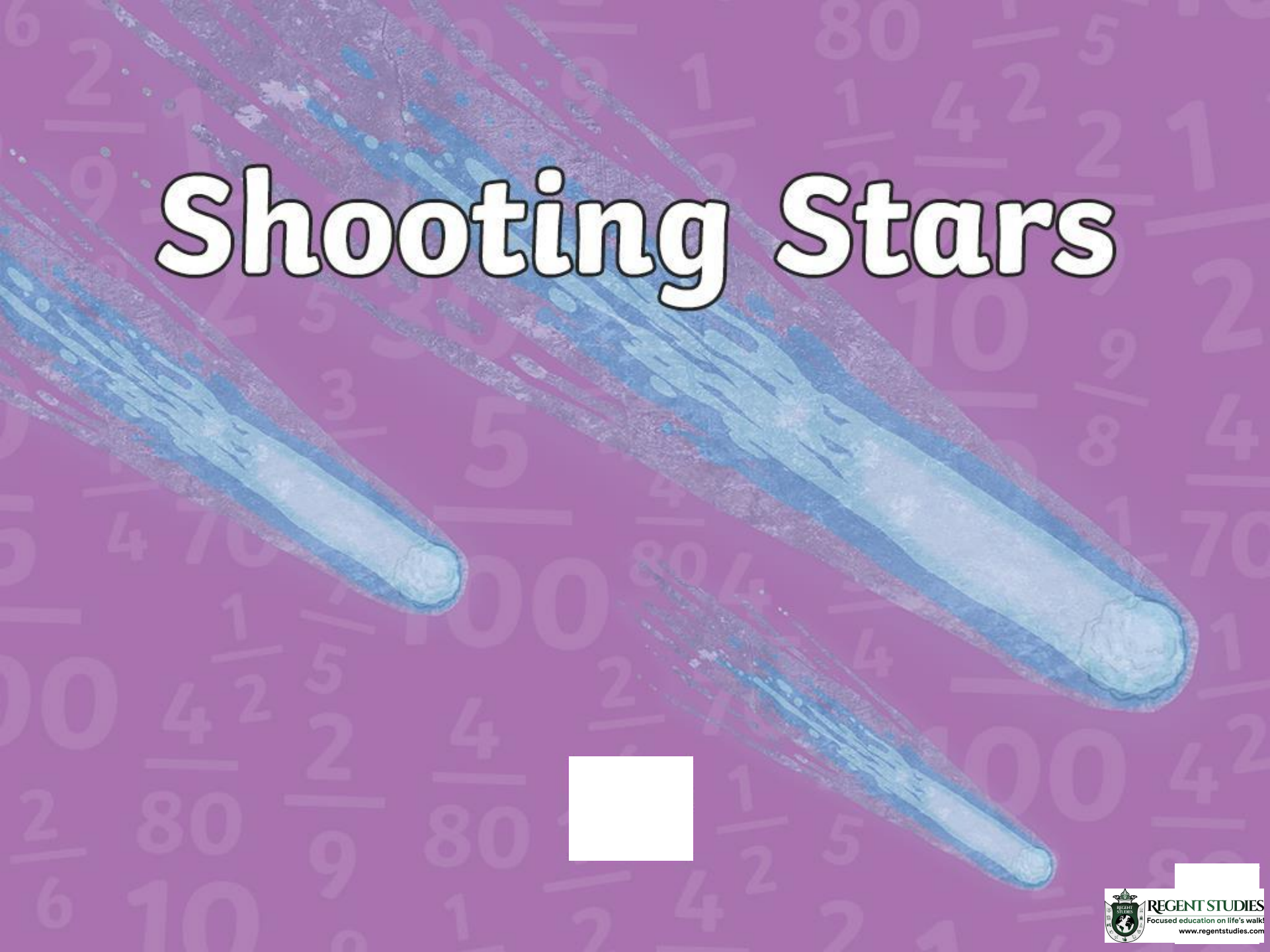




# Maths

## Fractions

# Shooting Stars



# Aim

- I can compare and order fractions where the denominators are not multiples of the same number.

# Success Criteria

- I can use bar models to compare and order fractions.
- I can use the greater-than and less-than symbols to compare fractions.
- I can use a common denominator to compare and order fractions.

# Bar Model Fractions

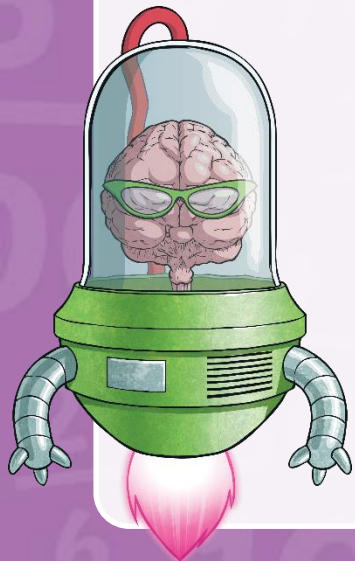


Use the fractions bar models to complete the sentences.



$\frac{2}{3}$  is smaller than  $\frac{3}{4}$

$\frac{3}{4}$  is larger than  $\frac{2}{3}$



# Bar Model Fractions

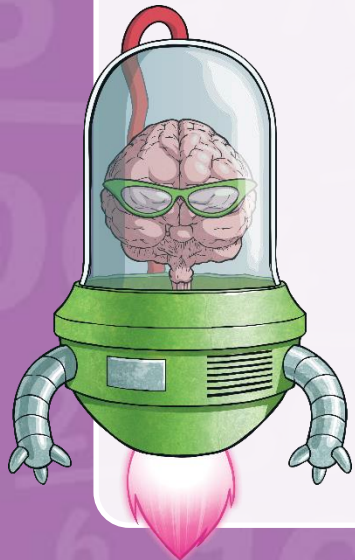


Use the fractions bar models to complete the sentences.



$\frac{4}{5}$  is smaller than  $\frac{5}{6}$

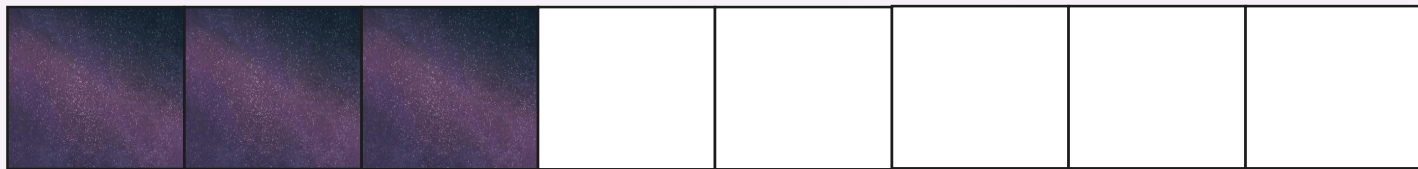
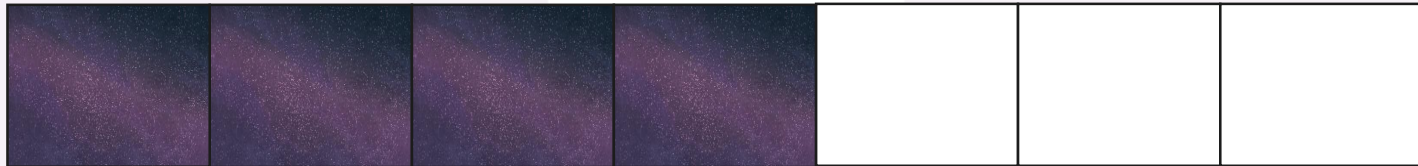
$\frac{5}{6}$  is larger than  $\frac{4}{5}$



# Bar Model Fractions



Use the fractions bar models to complete the sentences.

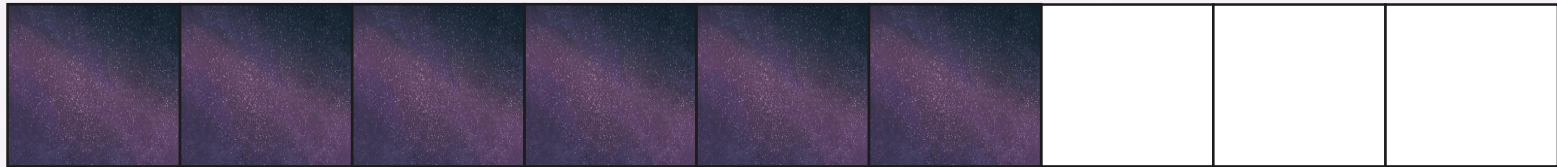
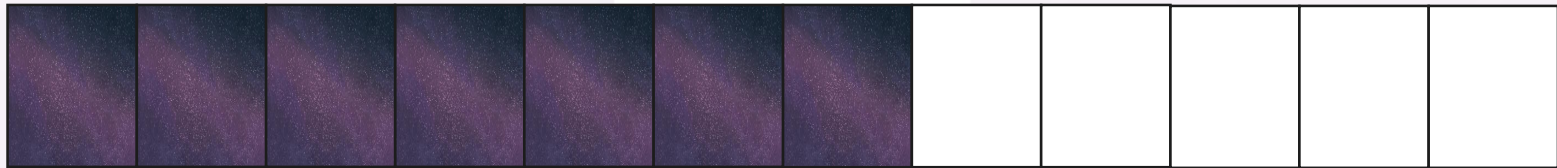


$\frac{3}{8}$  is smaller than  $\frac{4}{9}$  which is smaller than  $\frac{4}{7}$ .

# Bar Model Fractions



Use the fractions bar models to complete the sentences.



$\frac{2}{3}$  is larger than  $\frac{5}{8}$  which is larger than  $\frac{7}{12}$ .

# Comparing Using the Denominator

$$\frac{5}{8} \quad \frac{3}{5}$$

$$\frac{25}{40} > \frac{24}{40}$$

How can we compare these fractions without using diagrams?

What do you notice about the original denominators and the new denominators? Can you explain what has happened?





# Comparing Using the Denominator

$$\frac{7}{6} \quad \frac{6}{5}$$

$$\frac{35}{30} > \frac{36}{30}$$

How can we compare these fractions without using diagrams?

What do you notice about the original denominators and the new denominators? Can you explain what has happened?





# Star Constellations

Choose the correct star to be part of the constellation.

Change the fractions  $\frac{1}{3}$  and  $\frac{2}{5}$  so they have a common denominator.



$$\frac{1}{15} \text{ and } \frac{2}{15}$$

$$\frac{5}{15} \text{ and } \frac{6}{15}$$

$$\frac{5}{3} \text{ and } \frac{6}{5}$$

# Star Constellations



Choose the correct star to be part of the constellation.

Compare the fractions correctly using the  $<$ ,  $>$  or  $=$  signs.



$$\frac{5}{15} < \frac{6}{15}$$

$$\frac{5}{15} = \frac{6}{15}$$

$$\frac{5}{15} > \frac{6}{15}$$



# Star Constellations

Choose the correct star to be part of the constellation.

Change the fractions  $\frac{7}{9}$  and  $\frac{3}{4}$  so they have a common denominator.



$\frac{7}{36}$   
and  
 $\frac{3}{36}$

$\frac{28}{9}$   
and  
 $\frac{27}{4}$

$\frac{28}{36}$   
and  
 $\frac{27}{36}$



# Star Constellations

Choose the correct star to be part of the constellation.

Compare the fractions correctly using the  $<$ ,  $>$  or  $=$  signs.



$$\frac{28}{36} > \frac{27}{36}$$

$$\frac{28}{36} = \frac{27}{36}$$

$$\frac{28}{36} < \frac{27}{36}$$

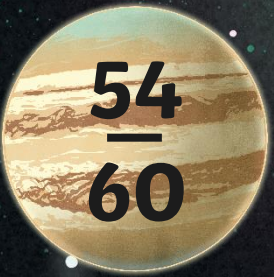
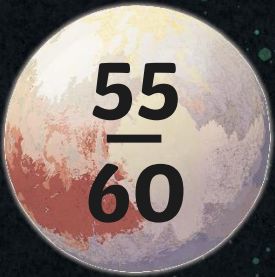
# Ordering Using the Denominator



What do you notice about the original denominators and the new denominators? Can you explain what has happened?



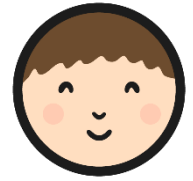
# Ordering Using the Denominator



What do you notice about the original denominators and the new denominators? Can you explain what has happened?



# Comparing and Ordering Fractions





**Star Order I**

**Star Ordering Fraction Game**

**How to Play**

- Shuffle the cards and place them face down on the table, spread out.
- To begin, take any four fraction cards and place them on the game mat in the order they are picked up (from left to right).
- Take turns to pick up a new fraction card and swap it with one of the current fractions, keeping in mind that the aim of the game is to get four fractions in ascending order. All the other players have to agree with your swap, so make sure you explain your reasoning!



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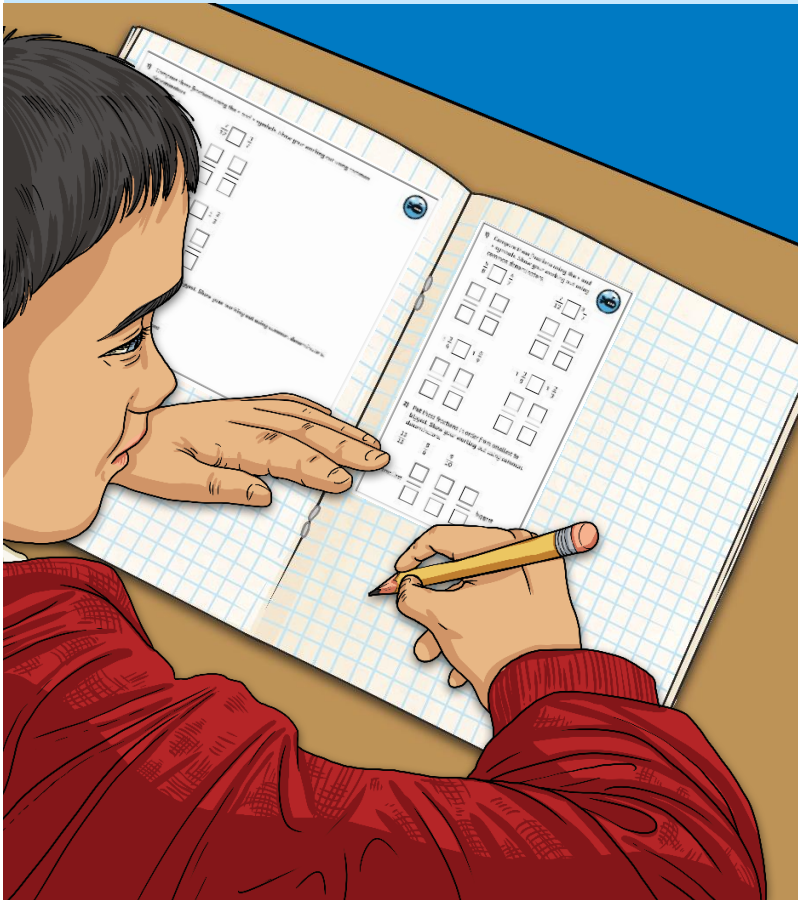
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## Diving into Mastery

Dive in by completing your own activity!



- 1) One fraction in this comparison is correct. Identify which one and explain.

$$\frac{1}{8} < \frac{1}{7} < \frac{4}{14} < \dots$$

\_\_\_\_\_

- 2) Majid is sawing two pieces of wood. He cuts both pieces of wood to  $\frac{3}{5}$  of their original length.



$$\frac{3}{5} = 1 \text{ metre}$$



Do you agree? Explain your reasoning.

\_\_\_\_\_

- 1) Compare these fractions using the < and > symbols. Show your working out using common denominators.

$$\frac{5}{8} \square \frac{4}{7}$$

$$\frac{7}{12} \square \frac{3}{7}$$

□	□
□	□

□	□
□	□

$$1\frac{3}{4} \square 1\frac{8}{9}$$

$$1\frac{3}{5} \square 1\frac{2}{3}$$

□	□
□	□

□	□
□	□

- 2) Put these fractions in order from smallest to biggest. Show your working out using common denominators.

$$\frac{13}{15}, \frac{5}{6}, \frac{9}{10}$$

smallest 

□	□	□
□	□	□

 biggest



# Fraction Puzzle



Find a way to complete this fraction statement using a fraction with a **different denominator**.

$$\frac{7}{12}$$

>

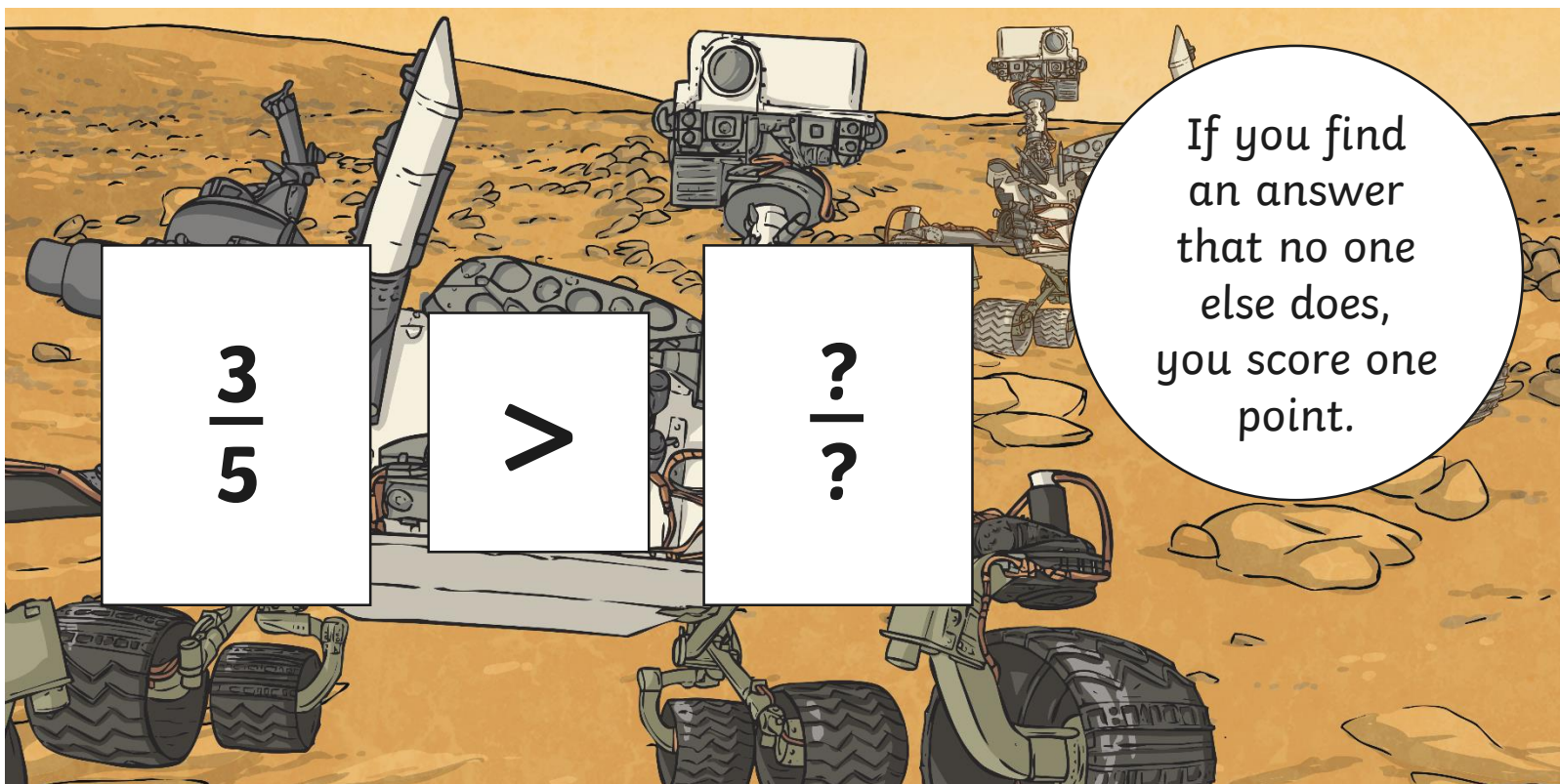
$$\frac{?}{?}$$

If you find an answer that no one else does, you score one point.



# Fraction Puzzle

Find a way to complete this fraction statement using a fraction with a different denominator.



$\frac{3}{5}$

$>$

$\frac{?}{?}$

If you find an answer that no one else does, you score one point.

# Fraction Puzzle



Find a way to complete this fraction statement using a fraction with a **different denominator**.

$$\frac{?}{10}$$

>

$$\frac{4}{?}$$

If you find an answer that no one else does, you score one point.

# Fraction Puzzle



Find a way to complete this fraction statement using a fraction with a **different denominator**.

$$\frac{?}{3}$$

>

$$\frac{5}{?}$$

If you find an answer that no one else does, you score one point.

# Aim



- I can compare and order fractions where the denominators are not multiples of the same number.

# Success Criteria

- I can use bar models to compare and order fractions.
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