



Year 3
Maths Answers

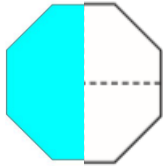
Week 7- Additional answers/feedback to support with learning in Maths

Day 1 Identify and describing non-unit fractions

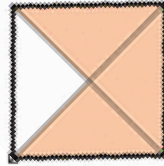
Starter

3 Colour the fractions of each shape:

a two quarters



b three quarters



c one half



d three quarters



Main Activity

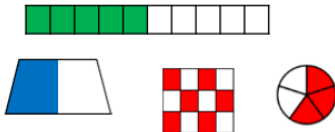

The answers are given at the end of the video provided.

<https://www.thenational.academy/year-3/maths/identify-and-describing-non-unit-fractions-year-3-wk2-1>

HOTS



Which is the odd one out? Explain why

This is the odd one out because the other fractions are all equivalent to $\frac{1}{2}$

Here are three fractions.

$$\frac{3}{8} \quad \frac{3}{5} \quad \frac{1}{8}$$

Which fraction is the largest? How do you know?

Which fraction is the smallest? How do you know?

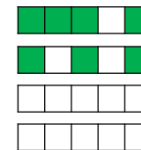
$\frac{3}{5}$ is the largest- when the numerators are the same, the smaller the denominator the larger the fraction. Children could also explain that $\frac{3}{5}$ is the only fraction larger than a half. $\frac{1}{8}$ is the smallest- when the denominators are the same, the smaller the numerator, the smaller the fraction.

Shade the blank diagrams so the fractions are ordered correctly.

Fractions in ascending order



Fractions in descending order



Either 7 or 8 parts shaded.

Either 2 and 1 parts shaded or 1 and 0 parts shaded.

Day 2

Finding non-unit fractions of quantities

Starter

6 Find these amounts. Use counters to help you.

a How many sweets did I get if I was allowed $\frac{1}{4}$ of 24? 6 sweets

b $\frac{1}{3}$ of all the kids in my class have a pet dog.
How many have a dog if there are 30 kids in my class? 10 kids

c $\frac{1}{5}$ of all the kids in my class ate an apple at playtime.
How many apples were eaten if there were 30 kids in my class? 6 apples

Main Activity

The answers are given at the end of the video provided.

<https://www.thenational.academy/year-3/maths/finding-non-unit-fractions-of-quantities-year-3-wk2-2>

Alex, Annie and Whitney each show a piece of ribbon.

Whitney shows $\frac{1}{2}$ of her whole ribbon.



Alex shows $\frac{1}{4}$ of her whole ribbon.



Annie shows $\frac{1}{3}$ of her whole ribbon.



Whose whole piece is the longest?
Whose is the shortest?
Explain why.

Alex's piece will be the longest because she will have four parts altogether.
Whitney's piece will be the shortest because she will only have two parts.

HOT



Alex says,

I have shaded $\frac{2}{2}$ of the shape.



What mistake might Alex have made?

She has shaded two quarters of the shape. She may have thought that the numerator represents the number of parts that are shaded and the denominator represents the number of parts that aren't. She doesn't realise the denominator represents the whole.

Dora says,



I have one third of a pizza because I have one slice and there are three slices left.

Do you agree? Explain your reasoning.

Dora is incorrect. She has one quarter of a pizza because there were four slices altogether and she has one of them. There would need to only be three slices altogether for her to have one third.

Day 3

Consolidating finding non-unit fractions of quantities

Starter

- 7 Jackson loves to bake cookies. He is famous for his triple choc chip delights. Work out how many each person received if Jackson baked a batch of 24 triple choc chip delights.



- a His best friend Hamish got $\frac{1}{4}$. Hamish got 6 triple choc chip delights.
- b He gave $\frac{1}{2}$ away to the teachers in the staff room.
The teachers got 12 triple choc chip delights.
- c He gave the rest to his next door neighbour Mr Wallis.
Mr Wallis got 6 triple choc chip delights.

Main Activity

The answers are given at the end of the video provided.

<https://www.thenational.academy/year-3/maths/consolidating-finding-non-unit-fractions-of-quantities-year-3-wk2-3>

HOTS



True or False?

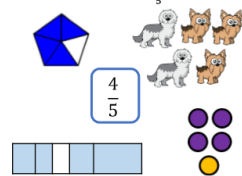
To find $\frac{3}{8}$ of a number, divide by 3 and multiply by 8



False.
Divide the whole by 8 to find one eighth and then multiply by three to find three eighths of a number.

Convince me.

Which representations of $\frac{4}{5}$ are incorrect?



Explain how you know.

The image of the dogs could represent $\frac{2}{5}$ or $\frac{3}{5}$



The bar model is not divided into equal parts so this does not represent

$\frac{4}{5}$



The school kitchen needs to buy carrots for lunch.

A large bag has 200 carrots and a medium bag has $\frac{3}{5}$ of a large bag.

Mrs Rose says,

I need 150 carrots so I will have to buy a large bag.



Is Mrs Rose correct?
Explain your reasoning.

Mrs Rose is correct.
 $\frac{3}{5}$ of 200 = 120
Mrs Rose will need a large bag.

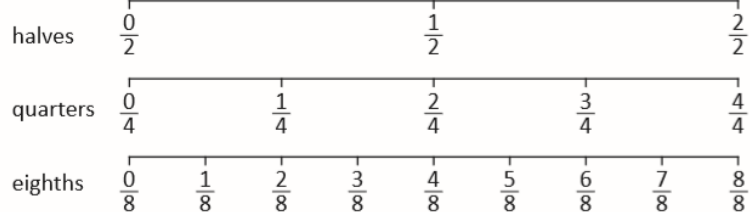
Day 4

Comparing fractions with the same denominator

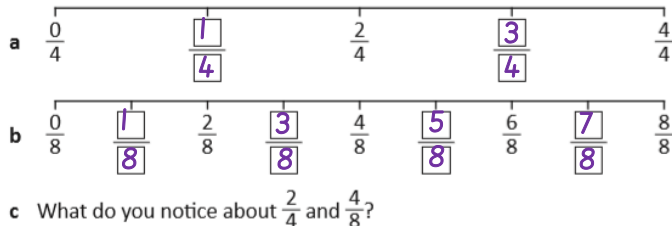
Starter

Fractions – comparing and ordering fractions

Let us now look at placing fractions on number lines.



4 Label the missing fractions on these number lines:



I notice that they are the same (equivalent). They are also half of the whole.

Main Activity

The answers are given at the end of the video provided.

<https://www.thenationalacademy/year-3/maths/comparing-fractions-with-the-same-denominator-year-3-wk2-4>

HOTS



Mohammed says, "When I compare fractions with the same denominator, I look at the numerator."

Discuss with a partner how Mohammed is correct. Is there anything else he needs to say?

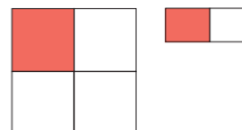
Now write your own instructions for comparing fractions with the same denominator, and show an example.



When comparing fractions, it is easier when the denominator is the same because this means the objects have been shared into the same amount of pieces. However as long as the pieces are the same size we are able to compare fractions with different denominators also. If the denominator is the same then looking at the numerator is the best way to compare the fractions as long as the pieces themselves are the same size.

Bob says the diagram below show that $\frac{1}{4} > \frac{1}{8}$.

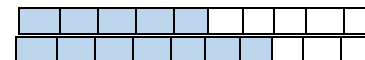
Explain why.



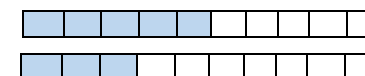
This diagram shows that $\frac{1}{4}$ is bigger than $\frac{1}{8}$ because the whole is bigger. If both shapes were the same size the $\frac{1}{8}$ would be bigger than the $\frac{1}{4}$.

True or False?

Five tenths is $\frac{2}{10}$ smaller than 7 tenths.



Five tenths is $\frac{2}{10}$ larger than three tenths.



Do you agree?

Explain why.

Yes I do agree, from the diagrams it shows that $\frac{5}{10}$ is $\frac{2}{10}$ s smaller than 7 tenths

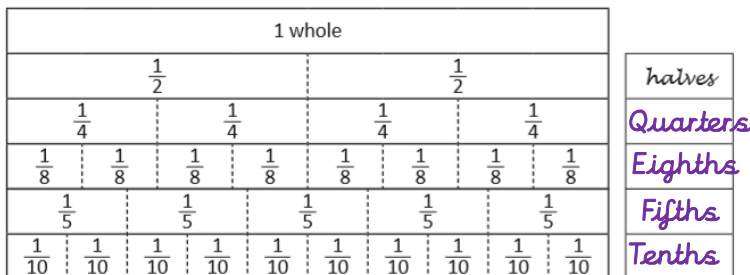
It also whos that 5 tenths is $\frac{2}{10}$ s larger than three tenths.

Day 5

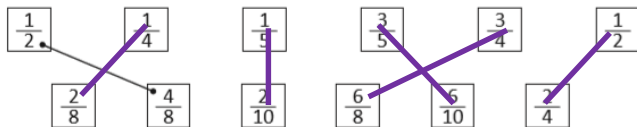
Compare and order unit fractions

Starter

- 1 Label each row of the fraction wall and colour each strip a different colour. The first one has been done for you.



- 2 Match the equivalent fractions in the top row with the fractions underneath by drawing a line to connect them. The first one has been done for you.



Main Activity

The answers are given at the end of the video provided.

<https://www.thenationalacademy/year-3/maths/compare-and-order-unit-fractions-year-3-wk2-5>

Order these fractions from the largest to the smallest.

- a) $\frac{2}{4}$, $\frac{1}{4}$, $\frac{4}{4}$, $\frac{3}{3}$
- b) $\frac{3}{7}$, $\frac{4}{7}$, $\frac{7}{7}$, $\frac{2}{7}$, $\frac{5}{7}$
- c) $\frac{3}{10}$, $\frac{6}{10}$, $\frac{1}{10}$, $\frac{10}{10}$, $\frac{2}{10}$
- d) $\frac{11}{15}$, $\frac{6}{15}$, $\frac{2}{15}$, $\frac{13}{15}$, $\frac{15}{15}$
- e) $\frac{16}{22}$, $\frac{17}{22}$, $\frac{1}{22}$, $\frac{19}{22}$, $\frac{5}{22}$

HOTS



Complete the missing denominator. How many different options can you find?

$$\frac{1}{2} > \frac{1}{\boxed{10}} > \frac{1}{10}$$

Examples could include $\frac{1}{3}$, $\frac{1}{4}$ etc.

Alex and Whitney are counting in quarters.



Alex

One quarter, two quarters, three quarters, four quarters...

One quarter, one half, three quarters, one whole...



Whitney

Who is correct? Explain your answer.

They are both correct. Two quarters is equivalent to one half and four quarters is equivalent to one whole.

- a) $\frac{4}{4}$ $\frac{3}{3}$ $\frac{2}{4}$ $\frac{1}{4}$
- b) $\frac{7}{7}$ $\frac{5}{7}$ $\frac{4}{7}$ $\frac{3}{7}$ $\frac{2}{7}$
- c) $\frac{10}{10}$ $\frac{6}{10}$ $\frac{3}{10}$ $\frac{2}{10}$ $\frac{1}{10}$
- d) $\frac{15}{15}$ $\frac{13}{15}$ $\frac{11}{15}$ $\frac{6}{15}$ $\frac{2}{15}$
- e) $\frac{19}{22}$ $\frac{17}{22}$ $\frac{16}{22}$ $\frac{5}{22}$ $\frac{1}{22}$

$\frac{4}{4}$ and $\frac{3}{3}$ are equal therefore are both the largest.