

3.2.21

Fractions

Learning Objective:

We are learning to compare and order fractions less than 1.

I will be successful if:

- I can order fractions in ascending and descending order.
- I can compare fractions using greater than, less than and equals symbols.
- I can find equivalent fractions using my multiplication facts.

Key Vocabulary

fractions as part of a whole

equal

representations

numerator

denominator

non-unit and unit fractions

ascending order

descending order

compare

greater than, less than, equal to

Flashback

4

Year 5 | Week 5 | Day 3

1) Find the difference between $\frac{3}{7}$ and 1



2) What fraction of the shape is shaded?



3) Multiply 56 by 32

4) Round 7.6 to the nearest whole number.

White
Rose
Maths

Challenge - Write these times as 12 hour clock times, using am and pm.



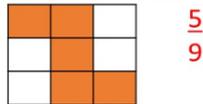
Flashback 4

Year 5 | Week 5 | Day 3

1) Find the difference between $\frac{3}{7}$ and $1\frac{4}{7}$



2) What fraction of the shape is shaded?



3) Multiply 56 by 32 $1,792$

4) Round 7.6 to the nearest whole number. 8

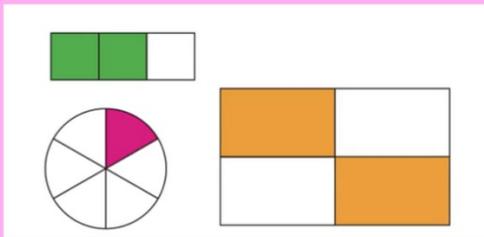


Challenge - Write these times as 12 hour clock times, using am and pm.



$1:50\text{pm}$ $11:08\text{am}$ $9:22\text{am}$ $11:10\text{pm}$

To compare fractions, we need to know they are fractions of the same whole.



We can't compare these fractions as the visual representations are not the same shape or size.



These are all the same size and shape so they are easier to compare.

Now, let's look at some methods to compare and order fractions.

Have a go at these now. Look to see which fraction you can convert so that they have the same denominator.

Write $>$, $<$ or $=$ to compare the fractions

$$\frac{1}{6} \quad \bigcirc \quad \frac{5}{18}$$

$$\frac{12}{25} \quad \bigcirc \quad \frac{3}{5}$$

$$\frac{36}{36} \quad \bigcirc \quad \frac{9}{9}$$

Ordering fractions with the same numerator, but a different denominator.

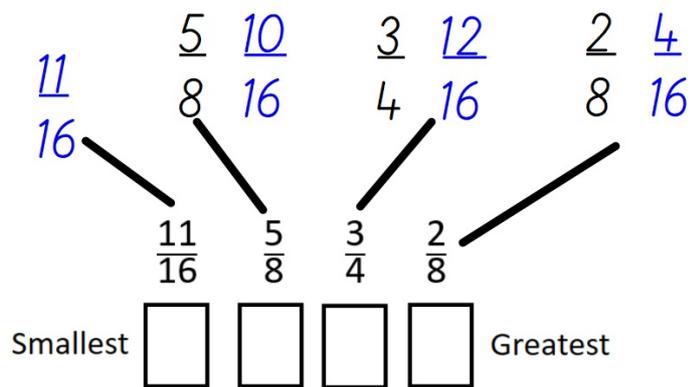
Write these fractions in ascending order.

$$\frac{5}{11} \quad \frac{5}{21} \quad \frac{5}{6} \quad \frac{5}{29}$$

When the numerators are the same, the **greater** the denominator, the **smaller** the fraction.

Ordering fractions with different denominators

Before you can order these fractions you need to make the denominators all the same. (Convert them all to the highest denominator rather than reducing to the smallest denominator.)



When the denominators are the same, the **greater** the numerator, the **greater** the fraction.

Now, order the fractions in ascending order:

Have a go at ordering these now in ascending order.

$$\frac{2}{6}$$

$$\frac{2}{3}$$

$$\frac{5}{12}$$

$$\frac{5}{6}$$

$$\frac{3}{6}$$

$$\frac{1}{6}$$

Smallest

Largest

Answers

$$\frac{1}{6}$$

$$\frac{2}{6}$$

$$\frac{5}{12}$$

$$\frac{3}{6}$$

$$\frac{2}{3}$$

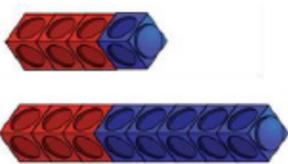
$$\frac{5}{6}$$

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Have a go at the questions on the sheet attached.

Reasoning challenges

Ron makes $\frac{3}{4}$ and $\frac{3}{8}$ out of cubes.



He thinks that $\frac{3}{8}$ is equal to $\frac{3}{4}$

Do you agree?
Explain your answer.

Always, sometimes, never?

If one denominator is a multiple of the other you can simplify the fraction with the larger denominator to make the denominators the same.

Example:

Could $\frac{?}{4}$ and $\frac{?}{12}$ be simplified to $\frac{?}{4}$ and $\frac{?}{4}$?

Prove it.