Coundon Primary School
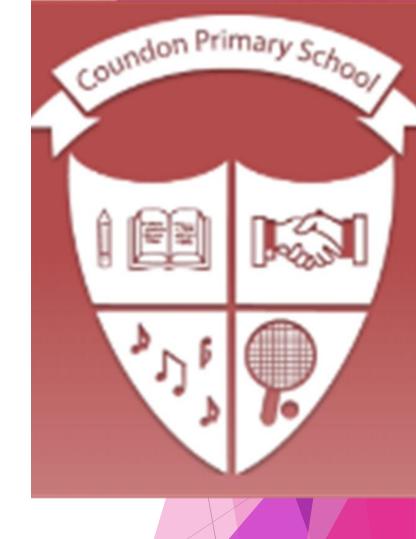
Year 3

Maths Home Learning Pack

Week Commencing 08.06.20

*Although we have uploaded the relevant worksheets, there is no need to print them. Your child can work directly from the screen.

Additional Resources

If you would like additional activities please use the following links:

White Rose Home Learning

https://whiterosemaths.com/homelearning/year-3/

Click on "Summer Term Week 1" and "Summer Term Week 2"
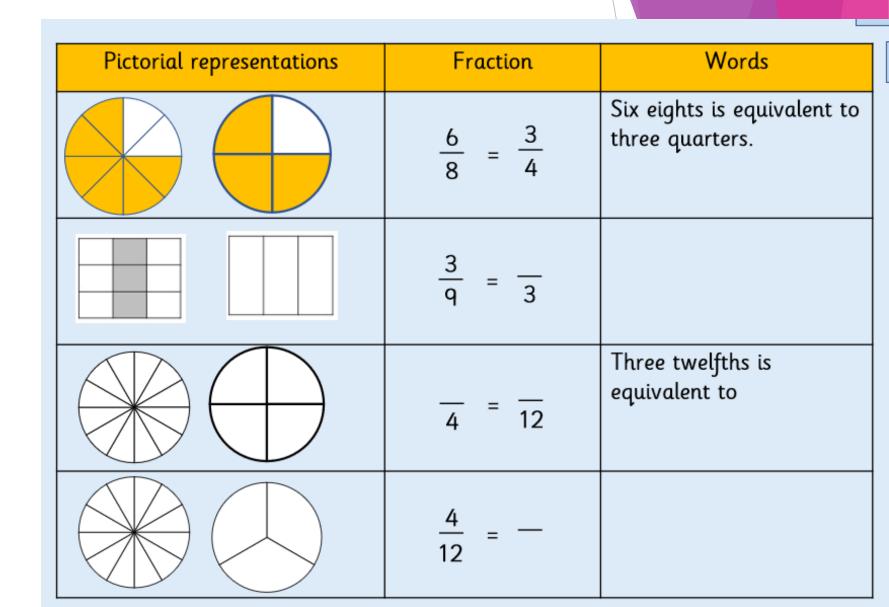
These match our key skills.

Lesson 1

KS: I can use a fraction wall and my times tables to find equivalent fractions

Starter

Complete the table

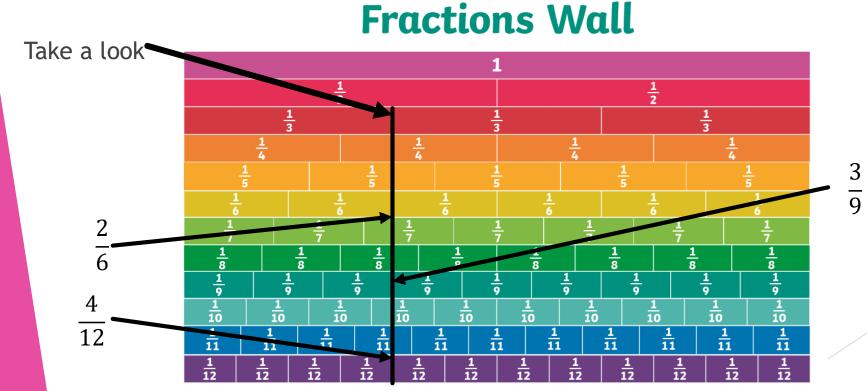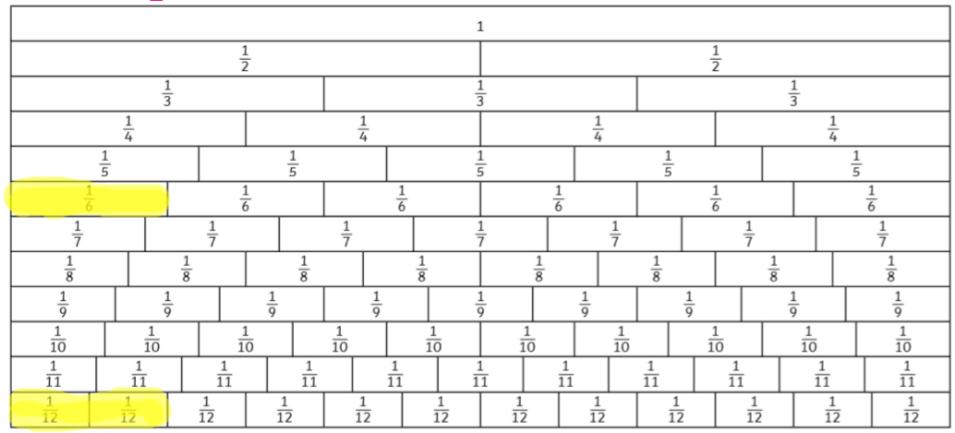| Pictorial representations	Fraction	Words
	$\dfrac{6}{8} = \dfrac{3}{4}$	Six eights is equivalent to three quarters.
	$\dfrac{3}{9} = \dfrac{}{3}$	
	$\dfrac{}{4} = \dfrac{}{12}$	Three twelfths is equivalent to
	$\dfrac{4}{12} = \dfrac{}{}$	

Learning

There are many ways to find equivalent fractions.

One way is to look at a fraction wall.

For example, if I wanted to find which fractions were equivalent to $\frac{1}{3}$, I could look down from $\frac{1}{3}$ to see which fractions line up perfectly.

Take a look

Fractions Wall

$\frac{3}{9}$

$\frac{2}{6}$

$\frac{4}{12}$

Learning

Use this fraction wall to discover the equivalent fractions (see my example, I find colouring in the blocks useful)

$$\frac{1}{6} = \frac{\boxed{2}}{12}$$

$$\frac{1}{4} = \frac{\square}{12}$$

$$\frac{5}{6} = \frac{\square}{12}$$

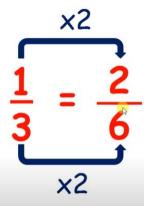$$\frac{6}{12} = \frac{\square}{8}$$

Learning

You can also find equivalent fractions by using your times tables.

$$\frac{1}{3} = \frac{?}{6}$$

What do you need to do to get from 3 to 6?

$$\frac{1}{3} = \frac{?}{6}$$
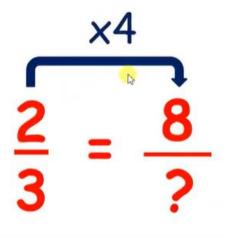×2

You need to multiply by 2, as 3×2=6.

×2
$$\frac{1}{3} = \frac{2}{6}$$
×2

The rule is what you do to the denominator must always be done to the numerator, so you must multiply by 2: 1×2=2
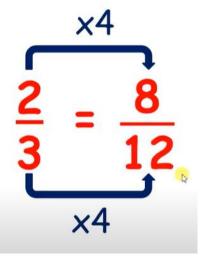
Learning

This example is slightly different, as you need to find the missing denominator.

$$\frac{2}{3} \longrightarrow \frac{8}{?}$$

What do you need to do, to get from 2 to 8?

$$\overset{\times 4}{\frac{2}{3} = \frac{8}{?}}$$

You need to multiply by 4, as 2x4=8.

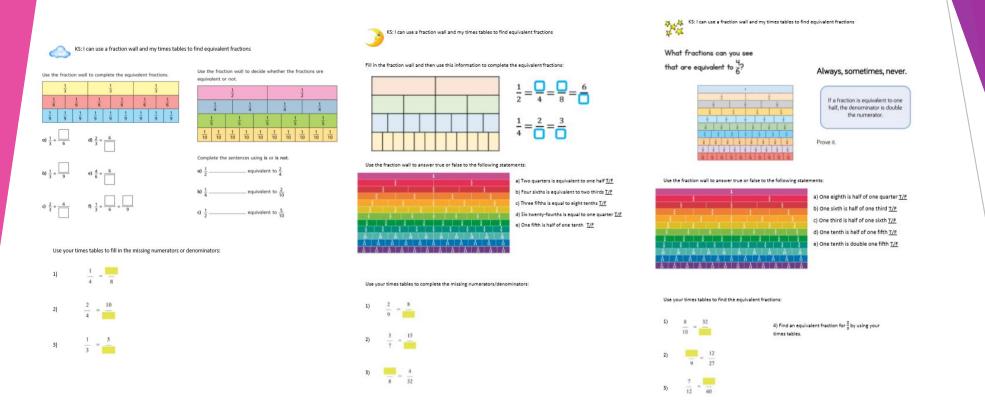$$\overset{\times 4}{\underset{\times 4}{\frac{2}{3} = \frac{8}{12}}}$$

The rule is what you do to the numerator must always be done to the denominator, so you must multiply by 4: 3x4=12

Learning

Try using your times tables in the method that has just been explained to find the missing fraction.

$$\frac{3}{5} = \frac{6}{?}$$

Learning

3x2=6, so you need to multiply 5x2, which equals 10.

Choose a worksheet to complete (see files on blog)

Answers

- Please see document titled "Answers lesson 1" for answers.

Lesson 2

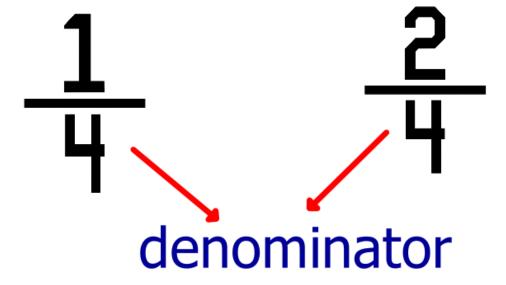KS:I can compare and order fractions with the same denominator.
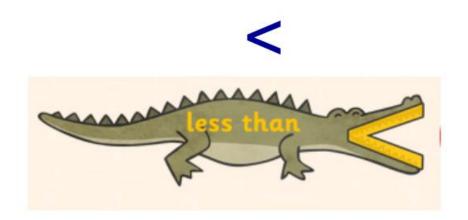
Starter

What do these signs mean?

$<$ $>$
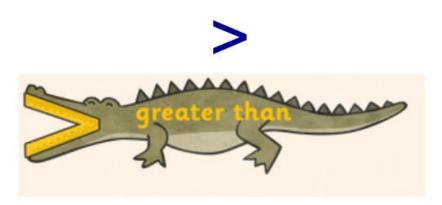
Can you use these signs to compare the following numbers:
1) 20   56
2) 100   400
3) 369   411
4) 760   769

Learning

Today, we are going to compare and order fractions with the same denominator:

$$\frac{1}{4} \qquad \frac{2}{4}$$
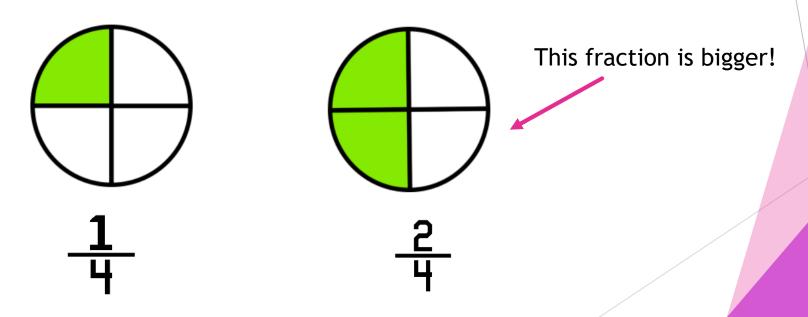
denominator

Learning

This means we need to know which is bigger and which is smaller!
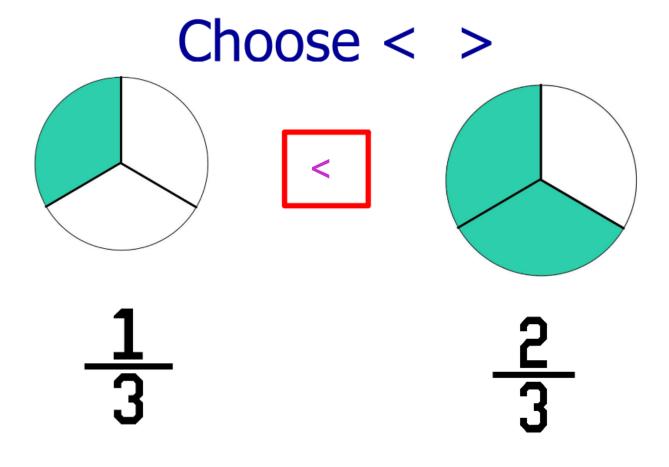
Learning

When we compare fractions with the same denominator, we need to look at the numerator to see which is bigger or smaller! This is because the numerator tells us how many "pieces" of the whole there are.
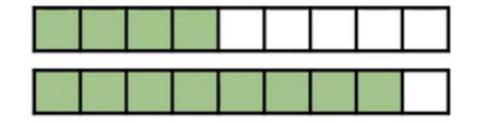
Which is bigger?

This fraction is bigger!
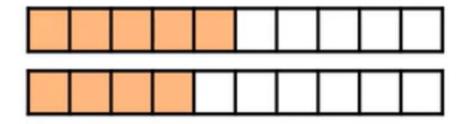
$$\frac{1}{4}$$

$$\frac{2}{4}$$

Learning

Have a go at these:

$$\frac{4}{9} \bigcirc \frac{8}{9}$$

$$\frac{5}{10} \bigcirc \frac{4}{10}$$

$$\frac{2}{4} \bigcirc \frac{5}{4}$$

Learning   Answers

$$\frac{4}{9} < \frac{8}{9}$$

$$\frac{5}{10} > \frac{4}{10}$$

$$\frac{2}{4} < \frac{5}{4}$$

Learning
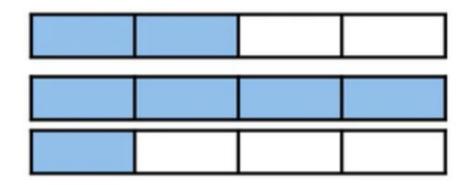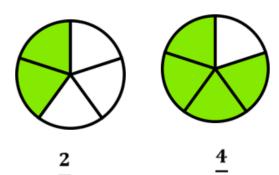
Can you put these fractions in order from lowest to highest value?

$$\frac{10}{10} \quad \frac{5}{10}$$
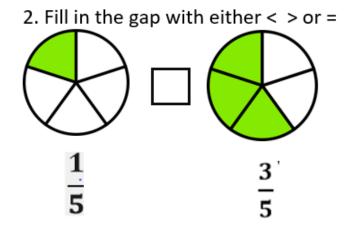
$$\frac{3}{10}$$

$$\frac{6}{10} \quad \frac{8}{10}$$

▶ Which is the smallest fraction here?

▶ Which is the biggest fraction here?
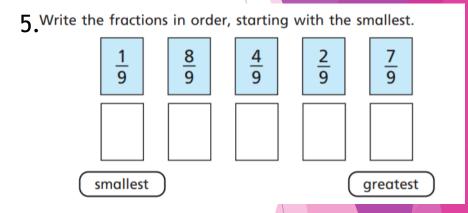
▶ How do you know?

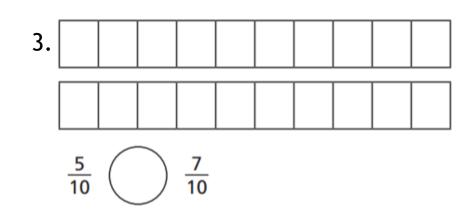# Complete the questions on either side 22, 23 or 24, depending on if you want to do clouds, moons or stars.
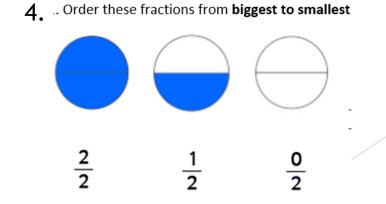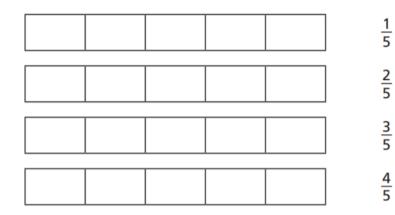
Clouds

1. Circle the smallest fraction:

$$\frac{2}{5} \qquad \frac{4}{5}$$

2. Fill in the gap with either < > or =

$$\frac{1}{5} \qquad \frac{3}{5}$$

3.

$$\frac{5}{10} \bigcirc \frac{7}{10}$$

4. .. Order these fractions from **biggest to smallest**

$$\frac{2}{2} \qquad \frac{1}{2} \qquad \frac{0}{2}$$

5. Write the fractions in order, starting with the smallest.

$\frac{1}{9}$	$\frac{8}{9}$	$\frac{4}{9}$	$\frac{2}{9}$	$\frac{7}{9}$

smallest   greatest

Moons

1 **a)** Shade the bar models to represent the fractions.

$\frac{1}{5}$

$\frac{2}{5}$

$\frac{3}{5}$

$\frac{4}{5}$

b) What do you notice?

2.

$\frac{9}{10}$ ☐ $\frac{7}{10}$

3. Which fraction is the largest? Circle your answer.

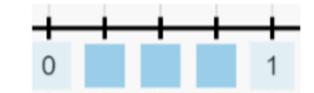$\frac{6}{10}$ $\frac{3}{10}$ $\frac{2}{10}$

4 Stuart has put these fractions in order from smallest to largest. Is he correct?

Explain your answer.

5 Place these fractions on the number line.

$\frac{2}{4}$ $\frac{3}{4}$ $\frac{1}{4}$

0   1

Stars

1) Write <, > or = to compare the fractions.

a) $\frac{1}{5}$ ◯ $\frac{3}{5}$

d) $\frac{6}{7}$ ◯ $\frac{2}{7}$

b) $\frac{2}{5}$ ◯ $\frac{2}{5}$

e) $\frac{6}{13}$ ◯ $\frac{12}{13}$

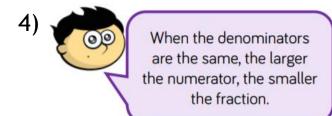c) $\frac{2}{7}$ ◯ $\frac{6}{7}$
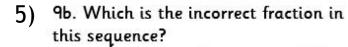
f) $\frac{13}{15}$ ◯ $\frac{13}{15}$

2) True or false?

$$\frac{4}{9} > \frac{5}{9}$$
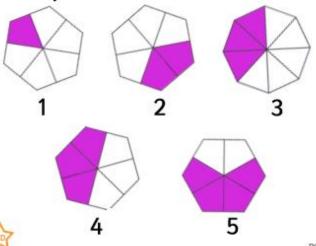
3. Plot these fractions on the number line:

$$\frac{1}{5} \quad \frac{3}{5} \quad \frac{5}{5} \quad \frac{2}{5} \quad \frac{4}{5}$$

4)

When the denominators are the same, the larger the numerator, the smaller the fraction.

Is Jack correct?
Prove it.

5) 9b. Which is the incorrect fraction in this sequence?

1   2   3

4   5

Answers

- Please see document titled "Answers lesson 2" for answers.

Lesson 3

KS:I can compare and order unit fractions with different denominators.

Starter

Recap from yesterday.

Put these fractions in order:

$$\frac{2}{4} \qquad \frac{4}{4} \qquad \frac{1}{4} \qquad \frac{3}{4}$$

Complete the sentence using the given words:

(numerator) (denominator) (greater) (smaller)

When fractions have the same _____, the

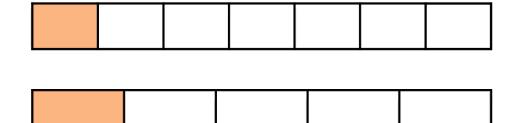_____ the _____ the _____

the fraction.

Learning

Today, we are going to compare and order unit fractions with different denominators. This means all of the fractions will have 1 as the numerator, but different denominators.
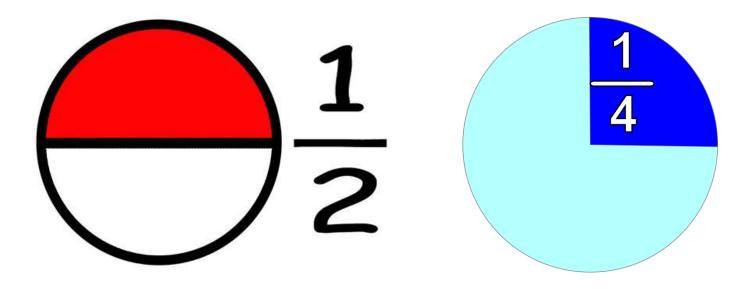
$$\frac{1}{7} \bigcirc \frac{1}{5}$$

How can we compare these two fractions?

$\frac{1}{7}$ is _____ than $\frac{1}{5}$

Learning

$$\frac{1}{7} < \frac{1}{5}$$

We can show these fractions using a bar model and then check which is larger.

$\frac{1}{7}$ is ___smaller___ than $\frac{1}{5}$

Here, we can see that $\frac{1}{7}$ is actually smaller than $\frac{1}{5}$, even though 7 is larger than 5. This is a tricky concept to understand. What it means is that, **when the numerator is 1, the larger the denominator, the smaller the fraction.** This is because when we divide something into more parts, it makes each part smaller. As shown by the bar model above, when there are 7 parts each part is smaller than when there are only 5 parts.

Learning

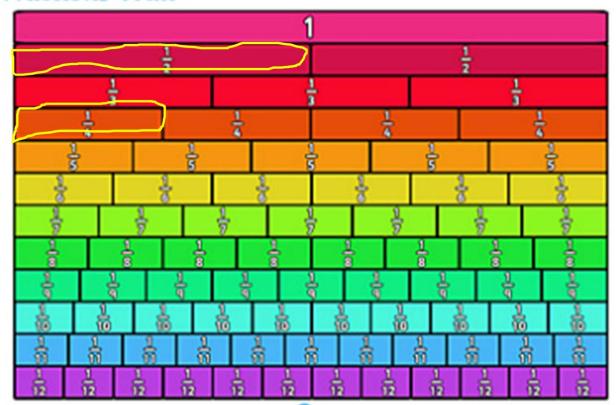## Which is smaller?

$\frac{1}{4}$ is smaller. This is shown by these pictures.

There are 4 parts, so each part is smaller than the 2 parts in $\frac{1}{2}$

Learning

You can also check this using a fraction wall.

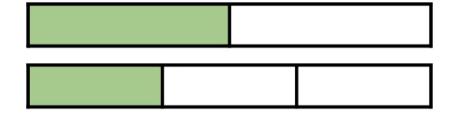Here, it is clear that $\frac{1}{4}$ is smaller than $\frac{1}{2}$

Learning

Have a go at these:

$$\frac{1}{2} \bigcirc \frac{1}{3}$$
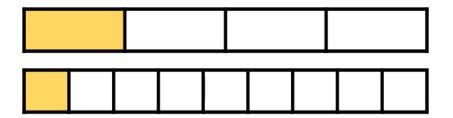
$$\frac{1}{4} \bigcirc \frac{1}{9}$$

Learning

$$\frac{1}{2} > \frac{1}{3}$$

$$\frac{1}{4} > \frac{1}{9}$$

Ordering unit fractions

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

$$\frac{1}{2}$$

$$\frac{1}{3}$$

$$\frac{1}{5}$$

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

Learning Answer

These fractions are ordered from the smallest, to the largest fraction.
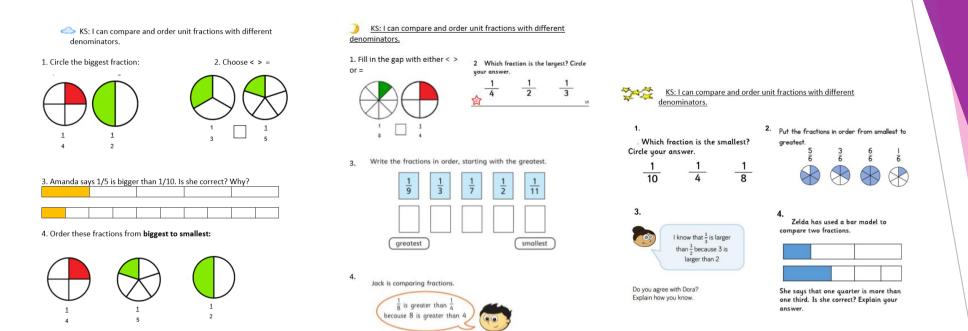As you can see, the larger the denominator, the larger the fraction.

If you are still finding this tricky, you could try to draw each fraction in a bar model or in a circle to show this before you move on.

$$\frac{1}{6} \qquad \frac{1}{5} \qquad \frac{1}{4} \qquad \frac{1}{3} \qquad \frac{1}{2}$$

Choose a worksheet to complete (see files on blog)

Answers

- Please see document titled "Answers lesson 3" for answers.

Lesson 4

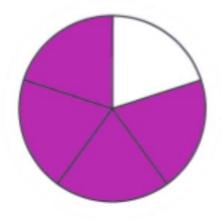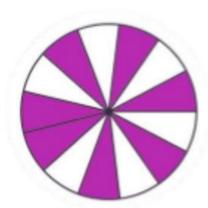KS: I can add and subtract fractions with the same denominator.
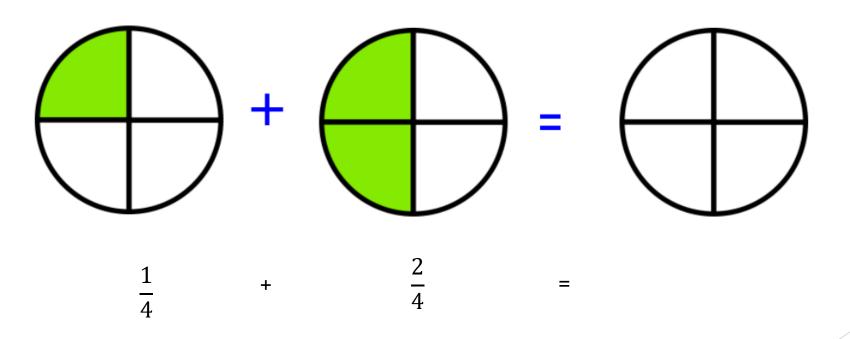
Starter

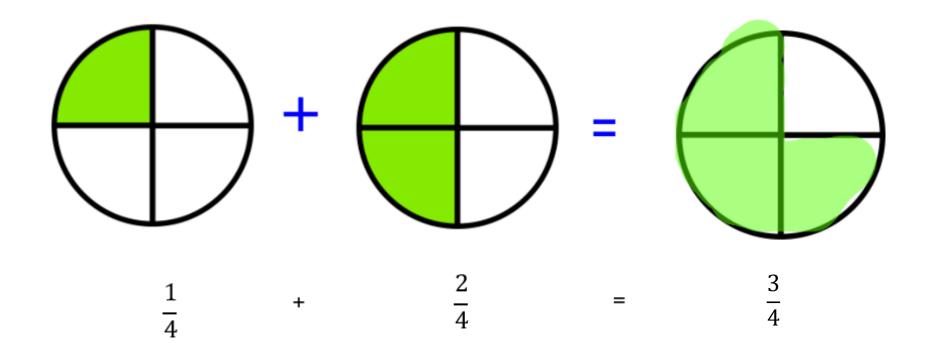What fraction of each shape is shaded?

Learning

Today, we are going to look at adding and subtracting fractions:

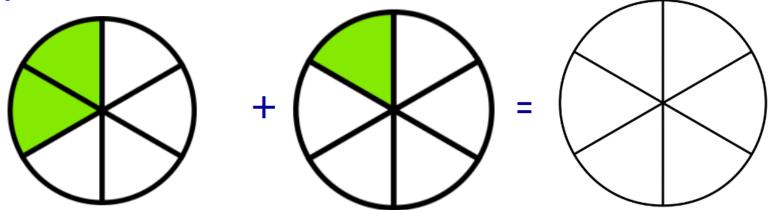How could we add these fractions? Have a go!

$$\frac{1}{4} \qquad + \qquad \frac{2}{4} \qquad =$$

Learning

$$\frac{1}{4} \quad + \quad \frac{2}{4} \quad = \quad \frac{3}{4}$$

You will notice that we have **only added the NUMERATORS together. You do not add the denominators.**
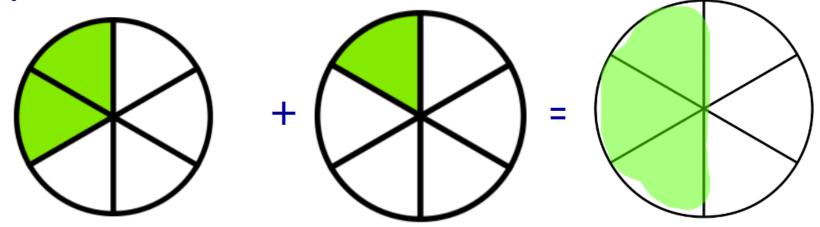
Learning

Try these:

(Use bars models if you need to!)

$$\frac{2}{5} + \frac{1}{5} =$$
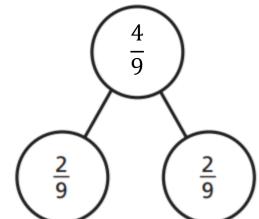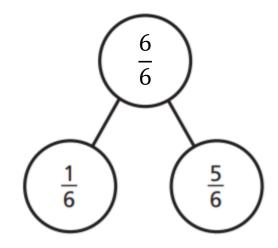
$$\frac{1}{4} + \frac{2}{4} =$$

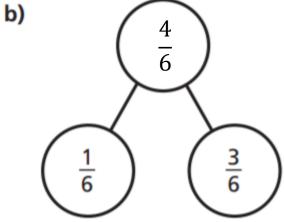# Learning

Try these:

(Use bars models if you need to!)

$$\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$$

$$\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$$
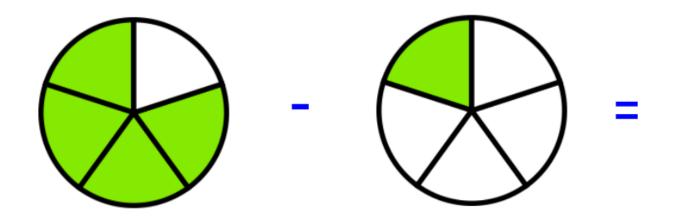
Learning

a)

b)

c)

You could say that a) is the odd one out because it is ninths and the other two are sixths. You could say c) is the odd one out as it shows a whole.

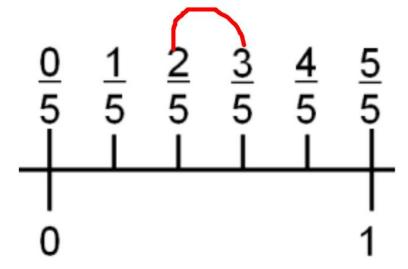Which part-whole model is the odd one out? _____

Learning

What do you think we would do if we wanted to subtract fractions?

$\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$. Again, you only subtract the numerators. You do nothing to the denominators.

Learning

You can also use a number line to help you:

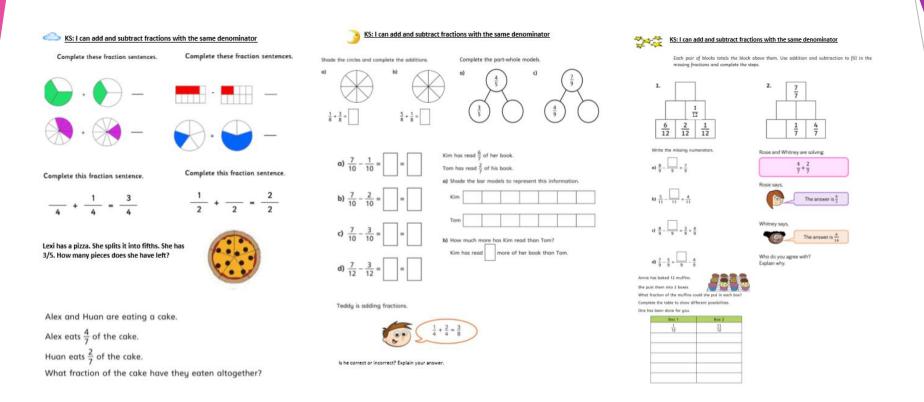$$\frac{3}{5} - \frac{1}{5} = \,?$$

Learning

Ron has $\dfrac{5}{8}$ of a bottle of water.

He drinks $\dfrac{3}{8}$ of the bottle.

What fraction of the bottle is left?

$$\frac{5}{8} - \frac{3}{8} = \frac{2}{8}$$

Choose a worksheet to complete (see files on blog)

Answers

- Please see document titled "Answers lesson 4" for answers.

Lesson 5

As always, today we are going to take a break from fractions and concentrate on our mental maths skills.

On the next page you will find a PALs test.

You can also use the following links to practise your skills.

Don't forget to use TT Rockstars and check the Year 3 blog to see if your name appears! ☺

https://www.topmarks.co.uk/Search.aspx?Subject=16&AgeGroup=3
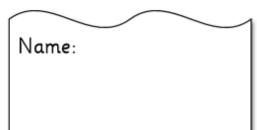
https://www.topmarks.co.uk/maths-games/hit-the-button
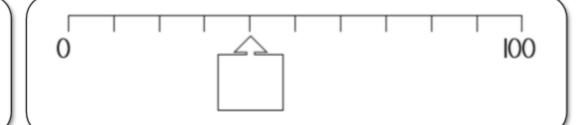
https://www.topmarks.co.uk/maths-games/daily10
- Choose level 2
- Then multiplication or division

https://home.oxfordowl.co.uk/kids-activities/fun-maths-games-and-activities/

https://www.bbc.co.uk/bitesize/topics/zd2f7nb/articles/zn2y7nb

Name:

883

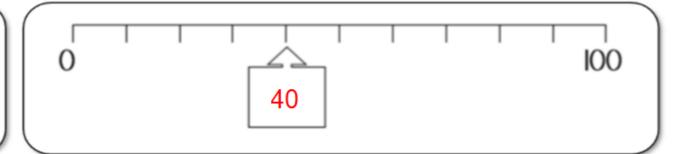851 - 1 =

851 - 100 =

180 - 90 =

46 + 32 =

85 + 42 =

55 + ☐ = 100

93 - 51 =

0 ———————————————— 100

25 ÷ 5 =

18 ÷ 2 =

Double 38

3 x ☐ = 24

6 ÷ 3 =

My score

——
12

ABBCMaths

Name:

883
800 80 3

851 − 1 = 850

851 − 100 = 751

180 − 90 = 90

46 + 32 =
+ 4 6
  3 2
  7 8

85 + 42 =
+ 8 5
  4 2
 1 2 7

55 + 45 = 100

93 − 51 =
− 9 3
  5 1
  4 2

0   40   100

25 ÷ 5 = 5

18 ÷ 2 = 9

Double 38
Double 30 = 60
Double 8 = 16
60 + 16 = 76

3 x 8 = 24

6 ÷ 3 = 2

My score
___
12

Well done everyone! Thank you for continuing to work so hard. Remember to photograph a piece of your work and email it to your teacher.
Stay safe and we'll see you soon!