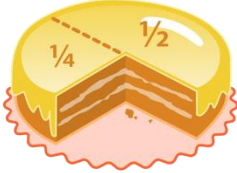




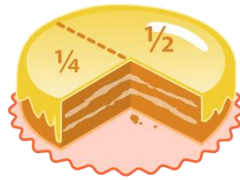


Year 5 maths – Summer 2 Week 1 beginning: 01.06.20

Theme	Fractions Making Equivalent Fractions	Fractions Making Equivalent Fractions	Fractions Making Equivalent Fractions	Fractions Making Equivalent Fractions	Fractions Making Equivalent Fractions
Factual fluency (to aid fluency)	Write down all the equivalent fractions you know for $\frac{1}{2}$	Practice equivalent fractions here	Practice adding fractions here	Practice subtracting fractions from whole numbers here	Practice equivalent fractions here
<p>Problem/activity of the day</p> <p>Remember, just like in class, you can still show the depth of your knowledge LINK</p>	<p>(Lesson 1 resources below) MAKING LINKS: Last term, we learnt how to find equivalent fractions by multiplying and dividing the numerator (top number) and the denominator (bottom number) by the same amount. THINK: (support below) Can you help me with this problem? What other fractions of this cake are possible?  SEE: (model below) Watch the video here. DO: Answer the questions below.</p>	<p>(Lesson 2 resources below) MAKING LINKS: Yesterday we learnt how to find equivalent fractions by multiplying the numerator and denominator by the same amount. THINK: (support below) Can you help me with this problem? Three friends collected sweets at Halloween.  Who collected the least amount of sweets? SEE: (model below) Watch the video here. DO: Answer the questions below.</p>	<p>(Lesson 3 resources below) MAKING LINKS: Yesterday we revised how to compare mixed numbers by making the denominators the same. THINK: (support below) Can you help me with this problem?  Two friends ate $\frac{4}{6}$ of one pizza and $\frac{1}{2}$ of another. How much pizza did they eat altogether? SEE: (model below) Watch the video here. DO: Answer the questions below.</p>	<p>(Lesson 4 resources below) MAKING LINKS: Yesterday we revised how to add fractions with different denominators by making the denominators the same first. THINK: (support below) Can you help me with this problem?  Neil poured $\frac{2}{8}$ L of cranberry juice from a bottle that contained $\frac{1}{2}$ L. How much was left in the bottle? SEE: (model below) Watch the video here. DO: Answer the questions below.</p>	<p>(Lesson 5 resources below) MAKING LINKS: Yesterday we revised how to subtract fractions with different denominators by making the denominators the same first. THINK: (support below) Can you help me with this problem?  The shoes cost $2\frac{1}{2}$ times as much as the t-shirt. How much do the shoes cost? SEE: (model below) Watch the video here. DO: Answer the questions below.</p>
Methods, tips, clues & checks	Day 1 resources and answers (below)	Day 2 resources and answers (below)	Day 3 resources and answers (below)	Day 4 resources and answers (below)	Day 5 resources and answers (below)

See below for resources to support you to THINK-SEE-DO

DAY 1 RESOURCES:
THINK:


What other fractions of this cake are possible?

DO:

1. Find the equivalent fractions.

a. $\frac{3}{5} = \frac{?}{10}$

b. $\frac{3}{5} = \frac{?}{15}$

c. $\frac{3}{5} = \frac{?}{100}$

d. $\frac{3}{4} = \frac{?}{100}$

e. one fifth = _____ fifteenths
 one fifth = _____ hundredths

2. Continue these equivalent fraction strings:

a. $\frac{1}{5}$ $\frac{\quad}{10}$ $\frac{\quad}{15}$ $\frac{\quad}{20}$ $\frac{\quad}{25}$

b. $\frac{1}{6}$ $\frac{\quad}{12}$ $\frac{\quad}{18}$ $\frac{\quad}{24}$ $\frac{\quad}{30}$

Remember:

Whatever you do to the **numerator**, you need to do it to the **denominator** too, and vice versa (other way round): whatever you do to the **denominator**, you need to do it to the **numerator** too.

TOP TIP

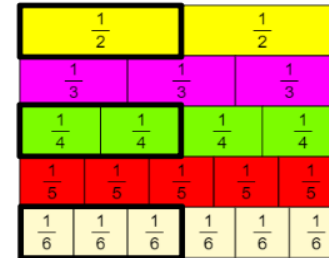
Work out what the denominator has been multiplied by. Now, multiply the numerator from the given fraction by the same number.

SEE: Watch the video [here](#).

First, let's think about other ways we could express $\frac{1}{2}$.

1. Use a fractions wall:

$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$



2. We can multiply the numerator and the denominator by the same amount to find more equivalent fractions:

$$\frac{1}{2} = \frac{3}{6}$$

(Arrows show 1 multiplied by 3 to get 3, and 2 multiplied by 3 to get 6)

We can continue using this method to find many more equivalent fractions such as $\frac{12}{24}$ or $\frac{50}{100}$

Now use [this interactive fractions](#) wall to investigate other ways of expressing $\frac{1}{4}$.

We could also think about solving the problem in a different way. We could add up the total amount of cake and then use the total amount of cake to find equivalent fractions. To do this accurately, we need to make sure our denominators are the same.

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

(A red arrow points down from the denominator 2 to 4)

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

$$\frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{12}{16}$$

DAY 3 RESOURCES:

THINK:



Two friends ate $\frac{4}{6}$ of one pizza and $\frac{1}{2}$ of another.
How much pizza did they eat altogether?

SEE: Watch the video [here](#).

$$\frac{1}{2} = \frac{3}{6}$$

(Handwritten: $\times 3$ above and below the fraction)

To solve this problem, I need to add the two fractions together ($\frac{4}{6} + \frac{1}{2}$).
Before I do so, I must make sure that the denominators are the same.

$$\frac{1}{2} = \frac{3}{6}$$

DO:

1. Add these fractions.

a. $\frac{3}{5} + \frac{9}{10}$

b. $\frac{11}{12} + \frac{1}{4}$

2. Add and give your answer as a mixed number in its simplest form.

a. $\frac{3}{4} + \frac{11}{12}$

b. $\frac{11}{15} + \frac{2}{3}$

3. Find the sum of

a. $\frac{9}{10} + \frac{3}{4}$

b. $\frac{3}{10} + \frac{5}{6}$

TOP TIPS

To find a common denominator between both fractions, you can list the multiples of each denominator until you find one that both of them have in common.

For example:

$$\frac{4}{6} + \frac{1}{2} = \frac{4}{6} + \frac{3}{6} = \frac{7}{6} = 1\frac{1}{6}$$

(Handwritten: arrows pointing from 6 and 2 to 6, and from 2 to 3 in the second fraction)

(Handwritten: $2 \times 3 = 6$)

(Handwritten: $\frac{1 \times 3}{2 \times 3} = \frac{3}{6}$)

$$\frac{4}{6} + \frac{1}{2}$$

$$\frac{4}{6} + \frac{3}{6} = \frac{7}{6}$$

Now that the denominators are the same, I can add the two fractions.

You will remember that when you have a fraction where the numerator (top) is larger than the denominator (bottom), it is known as an **improper fraction**. I can convert it into a **mixed number** like this:

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

(Handwritten: arrows pointing from 6 and 6 to 6, and from 1 to 7 in the numerator)

The friends ate $\frac{7}{6}$ of pizza or $1\frac{1}{6}$ pizza (a whole pizza and $\frac{1}{6}$).

Remember:

We **only add the numerators**, not the denominators.
We **keep the same common denominator**.

DAY 4 RESOURCES:

THINK:



Neil poured $\frac{2}{8}$ L of cranberry juice from a bottle that contained $\frac{1}{2}$ L. How much was left in the bottle?

DO:

1. Find the difference between:

a. $\frac{5}{6}$ and $\frac{2}{3}$

f. $\frac{3}{4} - \frac{5}{12}$

b. $1 - \frac{1}{7}$

g. $\frac{4}{5} - \frac{2}{15}$

c. $\frac{5}{7} - \frac{1}{3}$

h. $\frac{6}{7} - \frac{5}{14}$

d. $\frac{8}{9} - \frac{1}{2}$

i. $\frac{1}{2} - \frac{1}{18}$

e. $\frac{2}{5} - \frac{1}{10}$

2. Subtract and give your answer in its simplest form.

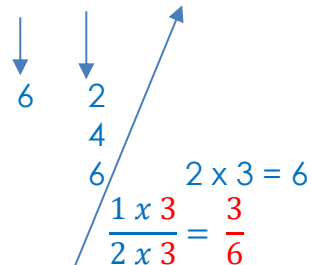
$\frac{5}{6} - \frac{1}{12}$

TOP TIPS

To find a common denominator between both fractions, you can list the multiples of each denominator until you find one that both of them have in common.

For example:

$$\frac{4}{6} - \frac{1}{2} = \frac{4}{6} - \frac{3}{6} = \frac{1}{6}$$



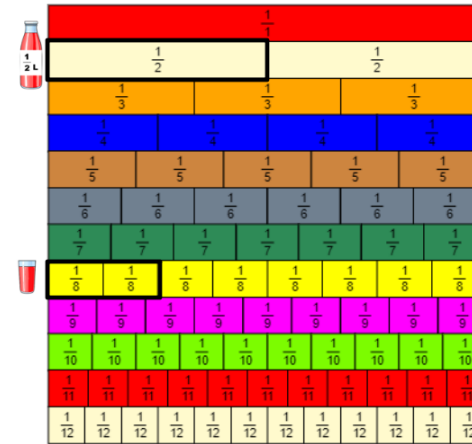
Remember:

We **only subtract the numerators**, not the denominators.

We keep **the same common denominator**.

SEE: Watch the video [here](#).

I need to subtract to find out how much is left in the bottle once some of the juice has been poured into the glass.



I need to make sure the denominators are the same, so I will turn $\frac{1}{2}$ into eighths. Then I can subtract.

I can also simplify $\frac{2}{8}$ by dividing the numerator and denominator by the same

amount.

There was $\frac{1}{4}$ litre of juice left in the bottle, which I could also write as **0.25 l**. Alternatively, as I know there are 1000ml in 1l, I can divide 1000 by 4 to find one quarter. This means there was **250ml left in the bottle**.

DAY 5 RESOURCES:

THINK:



The shoes cost $2\frac{1}{2}$ times as much as the t-shirt.
How much do the shoes cost?

DO:

1. Multiply to calculate the answer.

a. A large drink costs $1\frac{1}{2}$ times as much as a small drink. The small drink costs £2. How much does the large drink cost?

b. $1\frac{1}{5} \times 8 =$

c. $2\frac{2}{3} \times 6 =$

2. Multiply to calculate the answer.

a. A small bag of sweets weighs $1\frac{1}{2}$ kg. A big bag of sweets is 3 times as heavy as the small bag. What is the total weight of the two bags?

b. Ben's daily allowance is £6. Emily's daily allowance is $2\frac{1}{2}$ times as much as Ben's allowance. How much is Emily's daily allowance?

c. A bag of vegetables weighs 3kg. A bag of fruit weighs $2\frac{4}{5}$ times as much as the bag of vegetables. What is the total weight of the bag of vegetables and the bag of fruit?

d. 12 bottles of water are needed to fill a paddling pool to the brim. Each bottle has a capacity of $1\frac{3}{8}$ L. Find the capacity of the paddling pool.

Remember: When working out multiplications like this one: $2\frac{1}{2} \times 8$, break the mixed number into two parts: $2\frac{1}{2} = 2$ and $\frac{1}{2}$; then, multiply the **given number by the whole number and by the fraction:** 2 by 8, and $\frac{1}{2}$ by 8. Then, add both answers.

SEE: Watch the video [here](#).

I need to multiply to solve this problem by calculating $2\frac{1}{2} \times 8$.

To do this, I will break $2\frac{1}{2}$ into two parts: 2 and $\frac{1}{2}$.

I can then multiply 2 by 8, and $\frac{1}{2}$ by 8.

$$2\frac{1}{2} \times 8$$



$$2 \times 8 = 16$$

$$\frac{1}{2} \times 8 = \frac{8}{2}$$



Now I add these two parts together. As I know there are 2 halves in one whole, $\frac{8}{2}$ is the same as four wholes.

$$= 16 + \frac{8}{2}$$

$$= 16 + 4$$

$$= 20$$

The trainers cost £20.



Quality First Education Trust

ANSWERS

<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>	<u>Day 4</u>	<u>Day 5</u>
Question 1 a. $\frac{3}{5} = \frac{6}{10}$ b. $\frac{3}{5} = \frac{9}{15}$ c. $\frac{3}{5} = \frac{60}{100}$ d. $\frac{3}{4} = \frac{75}{100}$ e. three fifteenths twenty hundredths	Question 1 a. $3\frac{1}{12}$ b. $\frac{7}{14}$ Question 2 a. $3\frac{2}{3}$ $3\frac{8}{9}$ $5\frac{1}{9}$ b. $\frac{13}{5}$ $\frac{17}{10}$ $1\frac{3}{5}$ Question 3 $2\frac{4}{7}$ $2\frac{13}{14}$ $4\frac{1}{7}$ Question 4 $\frac{17}{2}$ $3\frac{1}{2}$ $\frac{23}{12}$	Question 1 a. $1\frac{1}{2}$ b. $1\frac{1}{6}$ Question 2 a. $1\frac{2}{3}$ b. $1\frac{2}{5}$ Question 3 a. $1\frac{13}{20}$ b. $1\frac{2}{15}$	Question 1 a. $\frac{1}{6}$ b. $\frac{6}{7}$ c. $\frac{8}{21}$ d. $\frac{7}{18}$ e. $\frac{3}{10}$ f. $\frac{1}{3}$ g. $\frac{2}{3}$ h. $\frac{1}{2}$ i. $\frac{4}{9}$ Question 2 $\frac{3}{4}$	Question 1 a. £3 b. $9\frac{3}{5}$ c. 16 Question 2 a. 6kg b. £15 c. $11\frac{2}{5}$ kg d. $16\frac{1}{2}$ L

