

Maths—Monday

Ordering fractions and counting in fractions on a number line

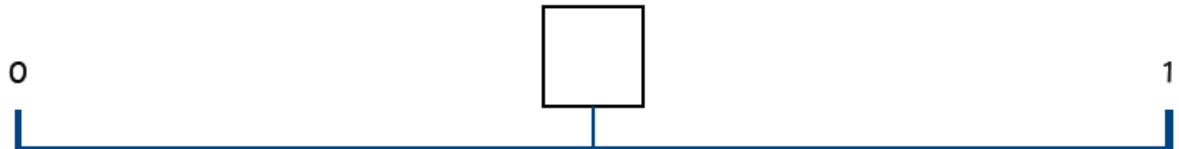
Group A

IXL sections for today are Sections W8—W 11, W14, W20—21

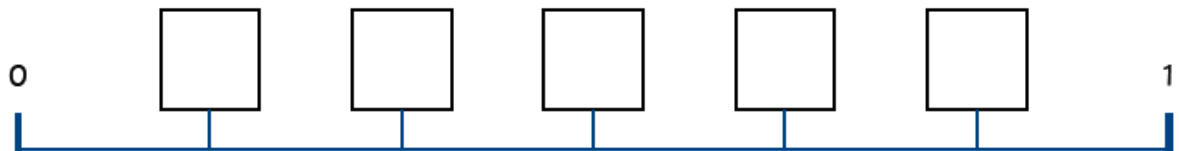
Counting in fractions on a number line

1) The number line has been divided into equal parts. Label each part correctly.

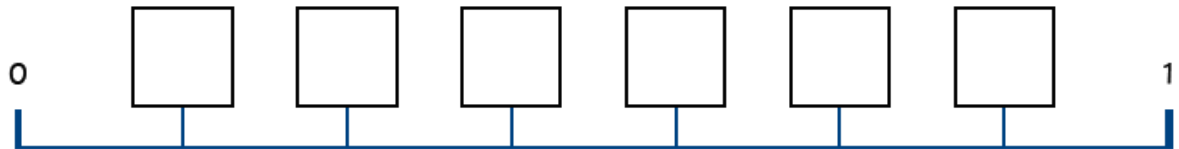
a)



b)



c)



2) Write $1\frac{1}{6}$ on the number line.



3) Write $3\frac{2}{6}$ on the number line.



3

Sergio walked to school.

He stopped to tie his laces $\frac{2}{7}$ of the way there.

Then, he stopped to meet his friend $\frac{4}{7}$ of the way there.

Show Sergio's journey.



4



On my number line, I start at 1.

I move forwards 4 spaces, backwards 2 spaces and forwards 3 more spaces.

I land on $1\frac{4}{6}$.

Do you agree with Mason?

Explain your reasoning.



Challenge

Some shapes have been removed from a number line.



I am the smallest of all fractions.



I sit more than halfway along on the number line.



I am worth more than the hexagon but less than the rectangle.



I am the largest of all fractions.

a) Where could each shape be placed? Find all possibilities.









Ordering fractions

Order these fractions from the smallest.

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

Order these fractions from the biggest.

$$\frac{4}{12} \quad \frac{6}{12} \quad \frac{8}{12} \quad \frac{10}{12} \quad \frac{11}{12}$$

Order these fractions from the smallest.

$$\frac{7}{9} \quad \frac{3}{9} \quad \frac{9}{9} \quad \frac{1}{9} \quad \frac{4}{9}$$

Remember we are going to need to make the denominators all the same. Use 18 for the first question and then multiply the numerator to match.

Order these fractions from the smallest.

$$\frac{9}{18} \quad \frac{1}{9} \quad \frac{5}{9} \quad \frac{1}{3} \quad \frac{8}{9}$$

Order these fractions from the biggest.

$$\frac{4}{15} \quad \frac{9}{15} \quad \frac{1}{5} \quad \frac{4}{5} \quad \frac{11}{15}$$

Finding unit fractions of an amount

Group A

A unit fraction is where the numerator is the number 1, e.g. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{7}$, $\frac{1}{8}$

Use your division facts to find fractions of these amounts.

a $\frac{1}{5}$ of 20 = <input type="text"/>	b $\frac{1}{4}$ of 12 = <input type="text"/>	c $\frac{1}{3}$ of 18 = <input type="text"/>	d $\frac{1}{6}$ of 18 = <input type="text"/>
$20 \div 5 =$ <input type="text"/>	$12 \div$ <input type="text"/> = <input type="text"/>	$18 \div$ <input type="text"/> = <input type="text"/>	$18 \div$ <input type="text"/> = <input type="text"/>
e $\frac{1}{5}$ of 15 = <input type="text"/>	f $\frac{1}{9}$ of 27 = <input type="text"/>	g $\frac{1}{2}$ of 14 = <input type="text"/>	h $\frac{1}{7}$ of 21 = <input type="text"/>
\div <input type="text"/> = <input type="text"/>	\div <input type="text"/> = <input type="text"/>	\div <input type="text"/> = <input type="text"/>	\div <input type="text"/> = <input type="text"/>

Use your division facts to find fractions of these cubes. You can even colour them in if that helps.

Answer these cube problems:

- a Amy connected 8 cubes. $\frac{1}{2}$ were green, $\frac{1}{4}$ were red and the rest were blue.



How many were blue? Green: $\frac{1}{2}$ of 8 = Red: $\frac{1}{4}$ of 8 =

- b Joel connected 16 cubes. $\frac{1}{2}$ were blue, $\frac{1}{4}$ were orange and the rest were purple.



How many were purple? Blue: $\frac{1}{2}$ of 16 = Orange: $\frac{1}{4}$ of 16 =

- c Natalie connected 20 cubes. $\frac{1}{4}$ were yellow, $\frac{1}{5}$ were green and the rest were orange.



How many were orange? Yellow: $\frac{1}{4}$ of 20 = Green: $\frac{1}{5}$ of 20 =

Use your division facts to find fractions of these amounts.

1) $\frac{1}{3}$ of 21 = $21 \div 3 = 7$

2) $\frac{1}{4}$ of 20 = $20 \div 4 = \underline{\hspace{1cm}}$

3) $\frac{1}{6}$ of 12 = $12 \div 6 = \underline{\hspace{1cm}}$

4) $\frac{1}{7}$ of 35 = $35 \div 7 = \underline{\hspace{1cm}}$

5) $\frac{1}{5}$ of 40 = $40 \div 5 = \underline{\hspace{1cm}}$

6) $\frac{1}{9}$ of 27 = $27 \div 9 = \underline{\hspace{1cm}}$

Find the missing numbers

21) $\frac{1}{4}$ of $\underline{\hspace{1cm}}$ = 3

22) $\frac{1}{8}$ of $\underline{\hspace{1cm}}$ = 2

23) $\frac{1}{7}$ of $\underline{\hspace{1cm}}$ = 3

24) $\frac{1}{3}$ of $\underline{\hspace{1cm}}$ = 5

25) $\frac{1}{6}$ of $\underline{\hspace{1cm}}$ = 4

26) $\frac{1}{9}$ of $\underline{\hspace{1cm}}$ = 1

27) $\frac{1}{5}$ of $\underline{\hspace{1cm}}$ = 10

28) $\frac{1}{3}$ of $\underline{\hspace{1cm}}$ = 6

29) $\frac{1}{4}$ of $\underline{\hspace{1cm}}$ = 7

Challenge

Find the answers to these questions, and then use the code grid below to find the code word. The first letter is done for you.

CODE GRID											
4	7	3	8	2	1	5	10	6	7	12	15
F	T	R	O	C	A	T	I	S	N	E	L

$\frac{1}{2}$ of 8	$\frac{1}{4}$ of 12	$\frac{1}{6}$ of 6	$\frac{1}{8}$ of 16	$\frac{1}{3}$ of 15	$\frac{1}{5}$ of 50	$\frac{1}{4}$ of 32	$\frac{1}{3}$ of 21	$\frac{1}{5}$ of 30
= 4	=	=	=	=	=	=	=	=
F								

$\frac{1}{7}$ of 7	$\frac{1}{8}$ of 24	$\frac{1}{4}$ of 48
=	=	=

$\frac{1}{9}$ of 18	$\frac{1}{5}$ of 40	$\frac{1}{2}$ of 16	$\frac{1}{3}$ of 45	
=	=	=	=	

Maths—Wednesday

Finding non-unit fractions of amounts

Group A

Instead of IXL today, go to the BBC Bitesize website

<https://www.bbc.co.uk/bitesize/articles/zhgxbk>

$\frac{3}{4}$ of 24 is

$\frac{2}{3}$ of 24 is

$\frac{5}{6}$ of 24 is

$\frac{3}{8}$ of 24 is

$\frac{1}{4}$ of 24 is

$\frac{1}{3}$ of 24 is

$\frac{1}{6}$ of 24 is

$\frac{1}{8}$ of 24 is

If this chocolate bar was cut into four equal pieces, how many chunks would be in each piece?

If this chocolate bar was cut into three equal pieces, how many chunks would be in each piece?

If this chocolate bar was cut into six equal pieces, how many chunks would be in each piece?

If this chocolate bar was cut into eight equal pieces, how many chunks would be in each piece?



Reminder

$\frac{2}{5}$ of 20

Don't forget to find the unit fraction first (divide the big number by the denominator)

$20 \div 5 = 4$

So $\frac{1}{5}$ of 20 is 4

Then multiply that answer by the numerator

$4 \times 2 = 8$

So $\frac{2}{5}$ of 20 = 8

Use the bar model to help work out eighths of 32.

32							

$\frac{1}{8}$ of 32 is _____

$\frac{2}{8}$ of 32 is _____

$\frac{3}{8}$ of 32 is _____

$\frac{4}{8}$ of 32 is _____

$\frac{5}{8}$ of 32 is _____

$\frac{6}{8}$ of 32 is _____

$\frac{7}{8}$ of 32 is _____

$\frac{8}{8}$ of 32 is _____

$\frac{1}{4}$ of 32 is _____

$\frac{1}{2}$ of 32 is _____

$\frac{3}{4}$ of 32 is _____

$\frac{4}{4}$ of 32 is _____

Remember to find one fraction first and then multiply that answer by the numerator.

1) $\frac{1}{3}$ of 24 = $24 \div 3 =$ ____

2) $\frac{2}{3}$ of 24 = $(24 \div 3) \times 2 =$ ____

3) $\frac{1}{6}$ of 18 = $18 \div 6 =$ ____

4) $\frac{2}{6}$ of 18 = $(18 \div 6) \times 2 =$ ____

5) $\frac{1}{5}$ of 40 = $40 \div 5 =$ ____

6) $\frac{3}{5}$ of 40 = $(40 \div 5) \times 3 =$ ____

Challenge

If three people are at a picnic, and they fairly divide the fruit, they can each have:

1 apple, 3 plums and 8 grapes.

How many pieces of fruit were there to begin with? Can you write a sentence to explain how you found your answer? Will a number sentence help to explain what you did?

Don't forget to Read the question carefully, Understand the answer you need to find, choose the correct Calculation, Solve the calculation, give the Answer and Check your work.

-
- 1) There are a total of 20 clownfish and angelfish in a tank.



$\frac{2}{5}$ of the fish are angelfish.

How many of each type of fish are there?

There are _____ angelfish and _____ clownfish.

- 2) Newton swims a total of 24 lengths. He swims a $\frac{3}{8}$ of the lengths on his front and the rest on his back.



How many lengths does he swim on his front?

He swims _____ lengths on his front.

- 3) There are 60 people on a train. $\frac{3}{10}$ of the people get off at the next stop. How many get off the train?



_____ people get off the train.

- 4) Captain has some gold and silver coins. He has 42 coins in all. $\frac{2}{7}$ of his coins are gold and the rest are silver.



How many of each sort of coin does he have?

He has _____ gold and _____ silver coins.

- 5) Sally and Newton go fishing and catch 40 fish. Sally catches $\frac{5}{8}$ of the fish. How many does Newton catch?



Newton catches _____ fish.

- 6) There is a group of 75 puffins on an island. $\frac{2}{5}$ of the group are adults and the rest are pufflings (puffin chicks). How many adults and pufflings are there?



There are _____ adults and _____ pufflings.

Challenges

Ron has £28

On Friday, he spent $\frac{1}{4}$ of his money.

On Saturday, he spent $\frac{2}{3}$ of his remaining money and gave £2 to his sister.

On Sunday, he spent $\frac{1}{5}$ of his remaining money.

How much money does Ron have left?

What fraction of his original amount is this?

Alex and Eva share a bottle of juice.

Alex drinks $\frac{3}{5}$ of the juice.



Eva drinks 200 ml of the juice.

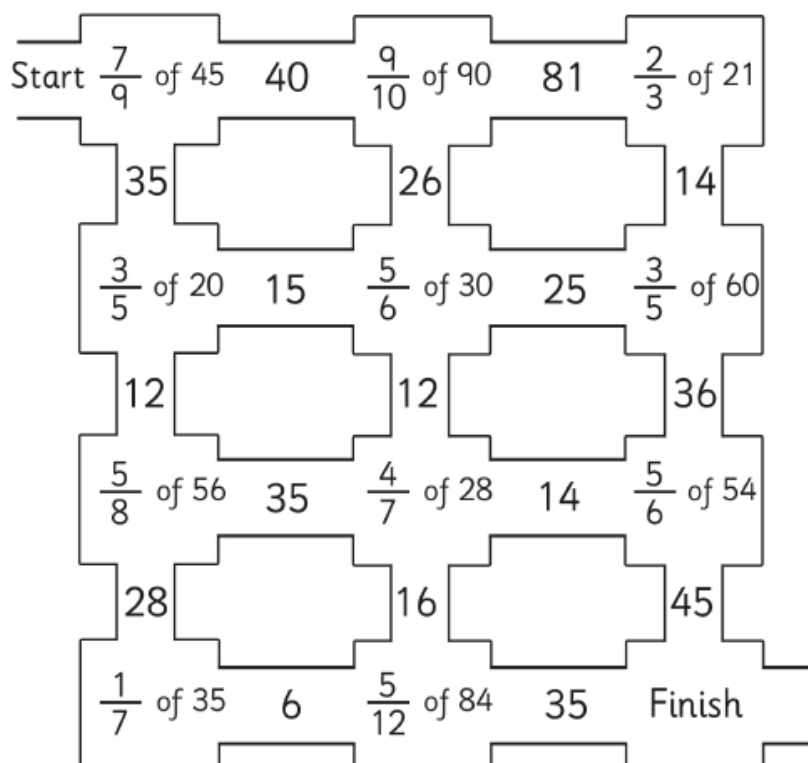
One fifth of the juice is left in the bottle.

How much did Alex drink?

What fraction of the bottle did Eva drink?

What fraction of the drink is left?

Find your way through the maze by finding the answers to the fraction questions



Adding and subtracting fractions

Group A

1. Don't forget to check if you need to add or subtract.

$$1) \quad \frac{2}{5} + \frac{1}{5} = \frac{\quad}{5}$$

$$2) \quad \frac{3}{6} - \frac{2}{6} = \frac{\quad}{6}$$

$$3) \quad \frac{2}{7} + \frac{4}{7} = \frac{\quad}{7}$$

$$4) \quad \frac{1}{8} + \frac{2}{8} = \frac{\quad}{8}$$

$$5) \quad \frac{3}{5} - \frac{1}{5} = \frac{\quad}{5}$$

$$6) \quad \frac{5}{10} - \frac{4}{10} = \frac{\quad}{10}$$

$$7) \quad \frac{2}{9} + \frac{3}{9} = \frac{\quad}{9}$$

$$8) \quad \frac{6}{11} - \frac{3}{11} = \frac{\quad}{11}$$

$$9) \quad \frac{9}{20} - \frac{2}{20} = \frac{\quad}{20}$$

$$10) \quad \frac{1}{7} + \frac{4}{7} = \frac{\quad}{7}$$

2.

$$\text{a} \quad \frac{1}{5} + \frac{2}{5} = \frac{\boxed{\quad}}{\boxed{\quad}}$$

$$\text{b} \quad \frac{2}{7} + \frac{3}{7} = \frac{\boxed{\quad}}{\boxed{\quad}}$$

$$\text{c} \quad \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{\boxed{\quad}}{\boxed{\quad}}$$

$$\text{d} \quad \frac{1}{10} + \frac{5}{10} + \frac{1}{10} = \frac{\boxed{\quad}}{\boxed{\quad}}$$

3.

Add or subtract the fractions then simplify the answer if needed.

$$1) \frac{4}{7} + \frac{3}{7} = \frac{\quad}{7} =$$

$$2) \frac{3}{10} - \frac{1}{10} = \frac{\quad}{10} = \frac{\quad}{5}$$

$$3) \frac{7}{11} - \frac{3}{11} =$$

$$4) \frac{3}{9} + \frac{3}{9} =$$

$$5) \frac{1}{8} + \frac{3}{8} =$$

$$6) \frac{11}{12} - \frac{2}{12} =$$

$$7) \frac{9}{10} - \frac{4}{10} = \quad =$$

$$8) \frac{3}{12} + \frac{7}{12} =$$

$$9) \frac{7}{15} + \frac{3}{15} = \quad =$$

$$10) \frac{11}{14} - \frac{3}{14} =$$

Challenges

Mo and Teddy share these chocolates.



They both eat an odd number of chocolates.
Complete this number sentence to show what fraction of the chocolates they each could have eaten.

$$\frac{\square}{\square} + \frac{\square}{\square} = \frac{12}{12}$$

Find the missing fractions:

$$\frac{7}{7} - \frac{3}{7} = \frac{2}{7} + \frac{\square}{7}$$

$$\frac{\square}{9} - \frac{5}{9} = \frac{4}{9} - \frac{2}{9}$$