

Year 6: Numeracy Day 1 Week 2

Each day, complete your times table starter. Then watch the video lesson, clicking through each round tab then complete the related worksheet.

Times Tables Starter

Spend 15 minutes on Times Tables Rock Stars - see if you can beat your top score!



Comparing percentages and fractions

Today we will be looking at the relationship between fractions and percentages.

<https://classroom.thenational.academy/lessons/understand-what-a-percentage-is-and-its-connection-to-fractions-6rrk2c?step=1&activity=video>

Question 1

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

What percentage of numbers up to 100 are:

- a) Multiples of 4
- b) Multiples of 6
- c) Multiples of 8
- d) Prime numbers

Question 2

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

This rectangle contains the numbers 1 – 50.

- a) How many squares would be covered if 50% of the squares were covered?
- b) How many squares would be covered if 10% of the squares were covered?

Year 6: Numeracy Day 2

12 x Times Tables Starter

X	2	3	4	5	6	7	8	9	10	11	12
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

Can you fill in this entire grid in under 4 minutes? Go!

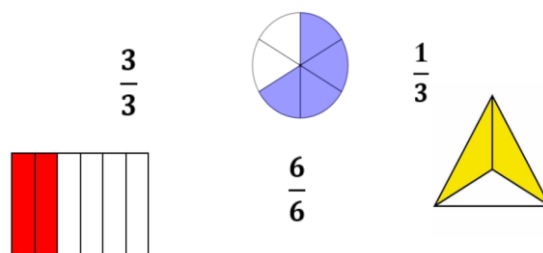
Equivalent Fractions

In this lesson, we'll be looking at fractions that have different denominators but are equivalent to each other.

<https://classroom.thenational.academy/lessons/fractions-recognising-equivalent-fractions-2-ccr38c?step=2&activity=video>

Question 1

Match each fraction with its equivalent
Can you draw other examples of equivalent fractions?



Question 2

- A) Find 2 equivalent fractions below and think of different ways of representing them with pictures or objects.

$$\frac{4}{6}$$

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

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

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

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

- B) Would you rather have $\frac{1}{6}$ or $\frac{1}{3}$ of a pizza? Why?



- C) Complete the boxes to show equivalent fractions

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

$$\frac{6}{6} = \frac{\quad}{3}$$

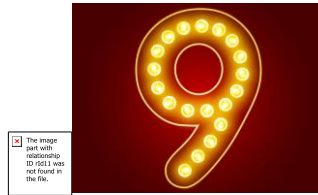
Use your fraction walls or diagrams to help you!



Year 6: Numeracy Day 3

12 x Times Tables Starter

Write out your 9 times-tables. Using mathematical vocabulary (tens, units, multiples, increase, decrease) describe the pattern you can spot.



Compare and order unit fractions

Today we will look at fractions and see if we can use the numerator and denominator to help us order them.

<https://classroom.thenational.academy/lessons/compare-and-order-unit-fractions-68u34e?step=2&activity=video>

Question 1

Compare the fractions

Use the symbols $<$, $>$ and $=$ to complete the comparison.

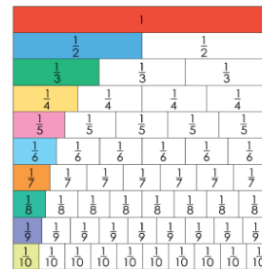
Use the fraction wall to compare your own unit fractions.

(1) $\frac{1}{3}$ ○ $\frac{1}{8}$

(2) $\frac{1}{7}$ ○ $\frac{1}{4}$

(3) $\frac{\square}{\square}$ ○ $\frac{\square}{\square}$

(4) $\frac{\square}{\square}$ ○ $\frac{\square}{\square}$



Question 2

Order the fractions

Use the fraction wall to order the fractions.

A) $\frac{1}{2}$ $\frac{1}{7}$ $\frac{1}{6}$ $\frac{1}{4}$



B) Choose three of your own unit fractions. Complete the comparisons below so it is correct.

$\frac{1}{9}$ ○ $\frac{\square}{\square}$ ○ $\frac{\square}{\square}$ ○ $\frac{\square}{\square}$



Order these fractions from smallest to largest:

$\frac{7}{9}$ $\frac{2}{4}$ $\frac{9}{10}$ $\frac{6}{13}$ $\frac{1}{2}$ $\frac{9}{5}$ $\frac{3}{7}$

Place the fractions in the correct locations on the number line.

Year 6: Numeracy Day 4

12 x Times Tables Starter



On a piece of paper, can you write out the answers to your 12 times-tables **backwards** (starting with the answer to $12 \times 12 =$). Time yourself to do this as quickly as possible.

Fractions of amounts

In this lesson, we will explore using fractions to find parts of whole numbers. We will divide by the denominator and then multiply by the numerator.

<https://classroom.thenational.academy/lessons/finding-non-unit-fractions-of-quantities-c5jp4d?step=2&activity=video>

Question 1

A) You might want to draw a bar model to help you calculate the non-unit fractions of amounts.











You may remember the formula if you want to speed up your working out:

- First, divide the whole by the denominator
- Then, multiply the value of one part by the numerator

- | | |
|---|--|
| 1) Find $\frac{3}{5}$ of 25 = <input type="text"/> | 4) Helen has 60 beanbags. She gives her friend $\frac{4}{10}$ of them.
How many beanbags did Helen's friend receive? <input type="text"/> |
| 2) Find $\frac{2}{7}$ of 14 = <input type="text"/> | |
| 3) Calculate $\frac{6}{8}$ of 32 = <input type="text"/> | |

Question 2

Find the following amounts:

$\frac{5}{6}$ of £30 	$\frac{1}{2}$ of £40 
$\frac{1}{4}$ of £100 	$\frac{6}{10}$ of £520 
$\frac{2}{3}$ of £600 	$\frac{5}{7}$ of £350 
$\frac{9}{10}$ of £180 	$\frac{7}{9}$ of £180 
$\frac{5}{8}$ of £240 	$\frac{1}{3}$ of £90 
$\frac{1}{5}$ of £500 	$\frac{4}{8}$ of £160 

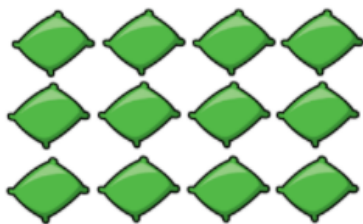
Question 3

A) You need to use a bar model to help you calculate the answers.

Think about the Steps to Success (STS):

This is $\frac{3}{4}$ of a set of beanbags.

1)



How many were in the whole set?

STS

1. Draw a bar model.
2. Do you know the value of the whole?
3. How many equal parts are there in total?
4. How many parts do you have in the question?
5. Can you find the value of one part?
6. Share out the value of the fraction between those parts.
7. What is the value of one part?
8. Use this to calculate the whole.

2) If I know that $\frac{4}{10}$ is 16.

What is the value of the whole?

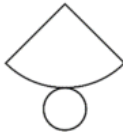

Year 6: Numeracy Day 5
12 x Times Tables Starter

What are the factors of:

18 20 1000

Mental Maths Test

Today you will be using various strategies to answer mixed questions.

1)	Find $\frac{3}{4}$ of £32.	
2)	$1 - 0.92$	
3)	Find the value of $(x - 6)/3$ if $x = 21$.	
4)	$10 \times 4 = 26 + \underline{\hspace{1cm}}$	
5)	Round 6.283 to 1dp	
6)	What is the missing number? 7.3 <u> </u> 8.1 8.5 8.9	
7)	What 3d shape is this the net for? 	
8)	How many faces does a triangular prism have?	
9)	In a group of children, $\frac{3}{5}$ like to play tennis. If there are 25 children, how many do not like tennis?	
10)	Timmy and Tommy are two boys whose ages add up to 23. Timmy is 5 years older than Tommy. How old are they?	
11)	How long is the line? 	
12)	What is the mean of 13, 7, 8 and 4?	
13)	Which is the smallest ? <div style="text-align: center;">0.37 0.194 0.6 0.473 0.29</div>	
14)	$3\frac{3}{5} + 2\frac{1}{5}$	
15)	How much is half of a quarter?	
16)	A rectangular swimming pool measures $5\frac{1}{2}$ metres by $3\frac{1}{2}$ metres. What is the perimeter ?	
17)	What do angles around a point add up to?	
18)	The ratio of lions to tigers in a zoo is 1:3. If there are 4 lions, how many tigers will there be?	