

HOME LEARNING

Year 8 – Maths – Home Learning 11

Focus for this week: Fractions of amounts

Essential learning:	<ul style="list-style-type: none">Finding quarters of amounts
Practising:	<ul style="list-style-type: none">Finding fifths of amounts
Learning about:	<ul style="list-style-type: none">Fractions of amounts
Extension:	<ul style="list-style-type: none">Multiply a fraction by a whole numberMultiply a fraction by a fraction

Contents:

- Worksheet 1** Quarters of amounts
- Worksheet 2** Fifths of amounts
- Worksheet 3** Fractions of amounts 1
- Worksheet 4** Fractions of amounts 2
- Worksheet 5** Multiplying fractions

Tasks:

- Look at the learning objectives, reflect on what you are already confident with, what you would like to practise and what you would like to learn this week
- Choose 2-3 worksheets to complete this week and email them to Mrs. Coleman on the email below.
- Login to MyMaths and complete MyMaths tasks
- Spend 10 minutes a day on Times Table Rock Stars; Numbots OR Sumdog
- Please email a photo of any worksheets or poster you complete to the email address below.
This will earn you a golden token.

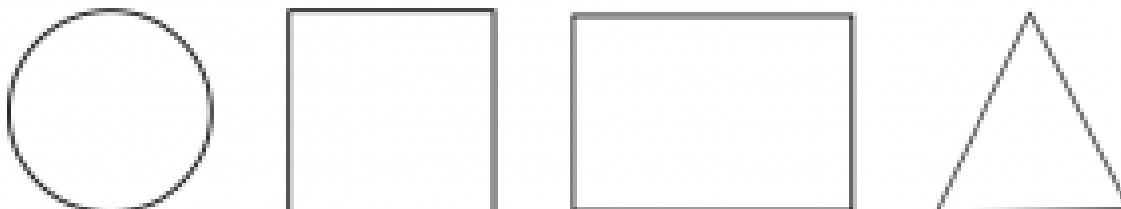
Additional activities:

- Go to My Maths and play the fraction games.

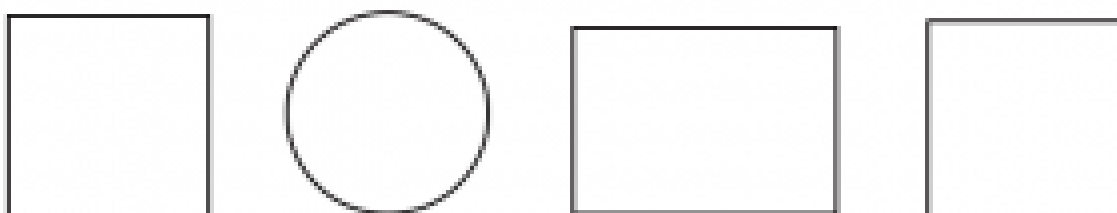
If you have queries about this work, please contact me at jcoleman@bower-grove.kent.sch.uk

Remember $\frac{1}{2}$ divide the shape in to 2 equal parts.
 $\frac{1}{4}$ divide the shape into 4 equal parts.

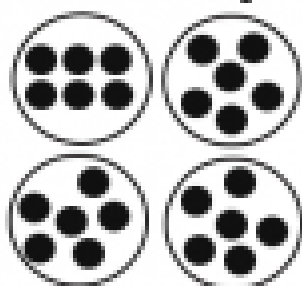
Draw lines on each shape to divide them into halves.



Draw another lines on each shape to divide them into quarters.

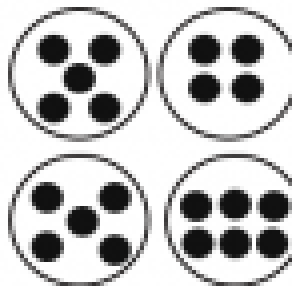


Two children put hoop around balls to break them in quarters.



a. Tom broke 24 balls into quarters. Did he do it correctly?

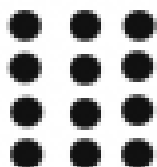
Yes	No
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b. Lisa broke 20 balls into quarters. Did she do it correctly?

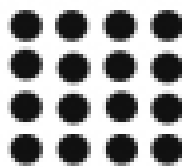
Yes	No
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Use the arrays to find the fractions the groups.



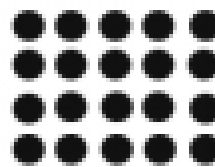
a. $\frac{1}{2}$ of 12 =

b. $\frac{1}{4}$ of 12 =



c. $\frac{1}{2}$ of 16 =

d. $\frac{1}{4}$ of 16 =



e. $\frac{1}{2}$ of 20 =

f. $\frac{1}{4}$ of 20 =

Worksheet 2 Fifths of amounts

To find a fifth of an amount you divide the total amount by the denominator (the bottom of the fraction).

$\frac{1}{5}$ of 20

20 divided by 5 = 5

For 2 fifths you divide by the denominator and then multiply the total by the numerator (the top of the fraction).

$\frac{2}{5}$ of 15

15 divided by 5.

2 times 5 = 10

1) $\frac{1}{5}$ of 30

2) $\frac{1}{5}$ of 50

3) I have £25. I spend $\frac{1}{5}$ on a magazine. How much money have I spent?

4) What is $\frac{1}{5}$ of 60?

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

6) $\frac{3}{5}$ of 50

7) For my friend's birthday I gave him $\frac{3}{5}$ of my savings. I had saved £45. How much money did I give him?

Now make up some sums of your own.

Email completed worksheets to me at jcoleman@bower-grove.kent.sch.uk. Each good attempt earns a golden token.

Worksheet 3 Fractions of amounts

LQ: To find fractions of numbers or amounts (s)

Look at these trays of cakes. You buy a fraction of each tray or cakes. Work out how many cakes you buy. To find $\frac{1}{2}$ divide by 2, to find $\frac{1}{4}$ divide by 4, to find $\frac{1}{5}$ divide by 5.



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



$\frac{1}{4}$ of 8 =



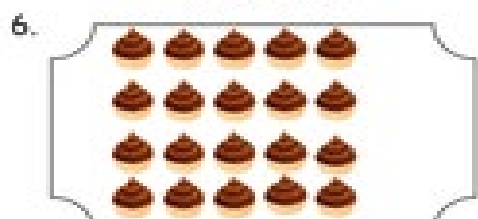
$\frac{1}{5}$ of 10 =



$\frac{1}{5}$ of 15 =



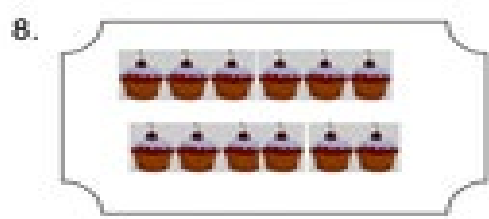
$\frac{1}{3}$ of 9 =



$\frac{1}{5}$ of 20 =



$\frac{1}{3}$ of 18 =



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



NOW try this:

9. find $\frac{1}{5}$ of 15

12. find $\frac{1}{5}$ of 25

15. find $\frac{1}{3}$ of 12

18. find $\frac{1}{10}$ of 20

10. find $\frac{1}{4}$ of 40 =

13. find $\frac{1}{5}$ of 30

16. find $\frac{1}{3}$ of 30

19. find $\frac{1}{10}$ of 50

11. find $\frac{1}{4}$ of 16

14. find $\frac{1}{5}$ of 35

17. find $\frac{1}{3}$ of 27

20. find $\frac{1}{10}$ of 90

Challenge 1

Find $\frac{1}{10}$ of:	Find $\frac{1}{5}$ of:	Find $\frac{1}{3}$ of:	Find $\frac{1}{4}$ of:
a) 30	e) 10	i) 9	m) 8
b) 80	f) 30	j) 27	n) 32
c) 20p	g) 25cm	k) £30	o) 20m
d) 50p	h) 45cm	l) £12	p) 36m

Challenge 2

a) $\frac{1}{10}$ of 60	e) $\frac{1}{5}$ of 50	i) $\frac{5}{6}$ of 12	m) $\frac{2}{7}$ of 70p	q) $\frac{5}{6}$ of 30cm
b) $\frac{3}{10}$ of 60	f) $\frac{4}{5}$ of 50	j) $\frac{2}{5}$ of 35	n) $\frac{3}{4}$ of 28p	r) $\frac{7}{9}$ of 18cm
c) $\frac{1}{4}$ of 16	g) $\frac{1}{3}$ of 21	k) $\frac{4}{9}$ of 27	o) $\frac{5}{8}$ of £16	s) $\frac{3}{8}$ of 40m
d) $\frac{3}{4}$ of 16	h) $\frac{2}{3}$ of 21	l) $\frac{7}{10}$ of 90	p) $\frac{2}{3}$ of £24	t) $\frac{4}{7}$ of 21m

Challenge 3

MULTIPLYING FRACTIONS

Remember!

1. Multiply
2. Multiply
3. Simplify

Fraction multiplied by a fraction

Whole number multiplied by a fraction

Fraction multiplied by a mixed number

Step 1: Write whole number as fraction; write mixed number as improper fraction.

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

$$9 \times \frac{2}{5}$$

$$\downarrow$$

$$\frac{9}{1} \times \frac{2}{5}$$

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

$$\downarrow$$

$$\frac{2}{3} \times \frac{7}{3}$$

Step 2: Multiply the numerators

$$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$$

$$\frac{9}{1} \times \frac{2}{5} = \frac{18}{5}$$

$$\frac{2}{3} \times \frac{7}{3} = \frac{14}{9}$$

Step 3: Multiply the denominators

$$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$$

$$\frac{9}{1} \times \frac{2}{5} = \frac{18}{5}$$

$$\frac{2}{3} \times \frac{7}{3} = \frac{14}{9}$$

Step 4: Write answer in simplest terms

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

$$\frac{18}{5} = 3\frac{3}{5}$$

$$\frac{14}{9} = 1\frac{5}{9}$$

Multiplying Fractions (A)

Find the value of each expression.

1. $\frac{5}{6} \times \frac{1}{2}$

5. $\frac{7}{9} \times \frac{1}{2}$

9. $\frac{1}{2} \times \frac{1}{3}$

2. $\frac{4}{9} \times \frac{2}{3}$

6. $\frac{5}{11} \times \frac{1}{3}$

10. $\frac{1}{8} \times \frac{1}{4}$

3. $\frac{3}{5} \times \frac{3}{4}$

7. $\frac{1}{3} \times \frac{5}{6}$

11. $\frac{1}{2} \times \frac{5}{6}$

4. $\frac{5}{6} \times \frac{1}{3}$

8. $\frac{1}{2} \times \frac{1}{6}$

12. $\frac{1}{3} \times \frac{4}{5}$