



W.C. 18th May

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

Maths

Dear parents/carers, there is no expectation to complete all the work or print worksheets off - children can work on paper if they want to write it down.

Thanks for all your hard work.

Also there is work on **StudyLadder** that we know the children love to use. You can email us on s83year6@st-annes.solihull.sch.uk for the password if your child has forgotten their login.

Purple Mash Look out for the activities Multiple of 10 (using multiplication and division), Multiplying Decimals, Decimals & Fractions Pairs and Multiplication Tables Check.

This week there is a Fluent in 5 at the start of Monday to Thursday for the children to practise their arithmetic.

After watching the videos and having a go at the practice activities, have a go at these activities. Depending on your confidence choose Mild, Medium or Spicy.



Extensions – You may wish to deepen your learning by looking at the Collins Worksheets provided by the BBC too.

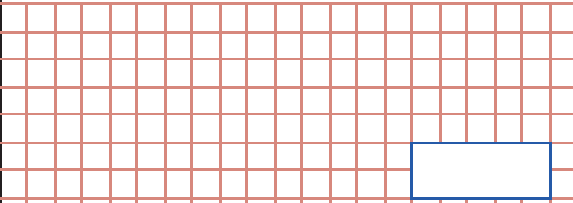
Monday

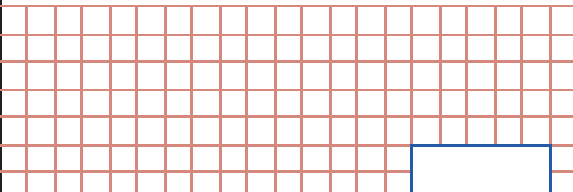
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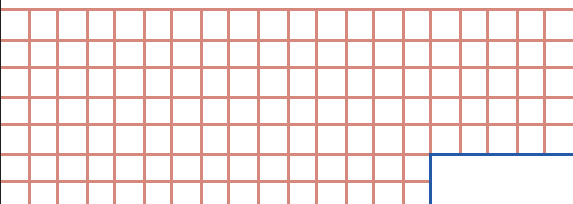
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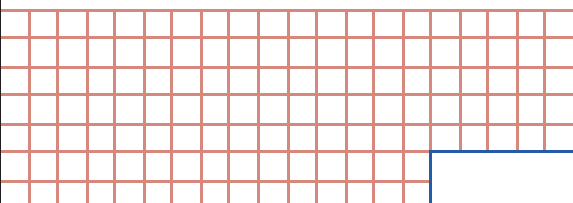
Decimals: Multiply and divide decimals by 10, 100 and 1000

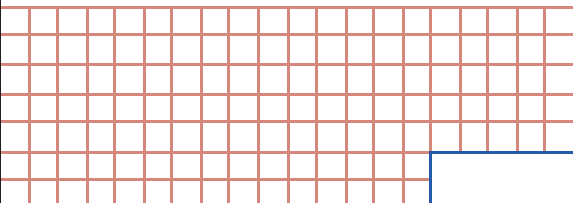
Fluent in 5

1	$\frac{1}{7} + \frac{3}{7} =$	
		

2	$43.34 + 4.894 =$	
		

3	$76.4 - 21.2 =$	
		

4	$5 \times 6 \times 5 =$	
		

5	$683 \times 7 =$	
		

Mild

- 1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O	Tth	Hth
			●●●●	●●●●	

a) $2.3 \times 10 =$

When the number is multiplied by 10 the counters move place to the left.

b) $2.3 \times 100 =$

When the number is multiplied by 100 the counters move places to the left.

c) $2.3 \times 1,000 =$

When the number is multiplied by 1,000 the counters move places to the left.

- 2 Complete the diagram.



Use the multiplication cards to complete the following calculations.

$\times 10$

$\times 100$

$\times 1,000$

2.46 = 2,460

81.54 = 815.4

6.39 = 639

Th	H	T	O	Tth	Hth
	●	●● ●●	●		

a) $140 \div 10 =$

When the number is divided by 10 the counters move place to the right.

b) $140 \div 100 =$

When the number is divided by 100 the counters move places to the right.

c) $140 \div 1,000 =$

When the number is divided by 1,000 the counters move places to the right.

Complete the diagram.



Match the calculation to the correct answer.

a. $325 \div 10$

320.5

b. $3,010 \div 100$

3.1

c. $3,100 \div 1,000$

32.5

d. $3,205 \div 10$

30.1

Medium

Complete the calculations.

a) $13.44 \times 10 =$

d) $4.4 \times$ $= 4,400$

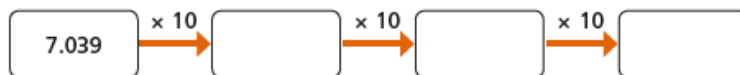
b) $41.4 \times 100 =$

e) $= 1.03 \times 100$

c) $0.415 \times 1,000 =$

f) $30.44 =$ $\times 10$

Complete the diagrams.



What do you notice? Why does this happen?

Select the correct answer

$463.79 \times 100 =$

46,379

4,637.9

463.790

Colin and Amali are multiplying numbers by 100.



If I multiply the number
297.50 by 100 I get
297.500.

You are incorrect. The
answer would be
29,750.



Is either of them correct? Explain your answer.

Complete the calculations.

a) $16 \div 10 =$

d) $332 \div$ $= 0.332$

b) $43.4 \div 100 =$

e) $2.4 \div 200 =$

c) $614 \div 1,000 =$

f) $5.09 =$ $\div 20$

Complete the following calculations.

a. $5,443 \div$ $= 54.43$

True or false?

b. $54,430 \div 1,000 =$

$2,354 \div 100 = 235.4$

c. $\div 100 = 544.3$

Solve the riddle. Josh is thinking of a number.



My number is
between 10 and 30.
When multiplied by
100 the number
becomes 2,155.

What is Josh's number?

Spicy

Write $>$, $<$ or $=$ to compare the number sentences.

$$1.4 \times 10 \times 10 \times 10 \quad \bigcirc \quad 1.4 \times 1,000$$

$$1.4 \times 10 \times 100 \quad \bigcirc \quad 1.4 \times 1,000$$

$$1.4 \times 10 \times 10 \quad \bigcirc \quad 1.4 \times 1,000$$

$$1.4 \times 10 \times 2 \quad \bigcirc \quad 1.4 \times 100$$

Kim is calculating 14.3×200

She writes this as her answer.

$$14.3 \times 200 = 28.600$$

Explain Kim's mistake.

a) Which calculation is incorrect?

A $824.68 \times 50 = 41,234$

B $44.40 \times 10 \times 10 = 4,440$

C $4.840 \times 2,000 = 96,800$

b) Which calculation is incorrect?

A $41.684 \times 200 = 8,336.8$

B $548.34 \times 300 = 5,483.4$

C $97.22 \times 10 \times 100 = 97,220$

Isabella and Saif are multiplying numbers by 100.



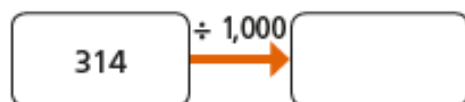
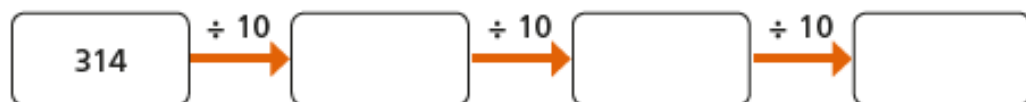
If I multiply the number 432.780 by 10×10 I get 432.7800.

You are incorrect. The answer would be 432,780.



Is either of them correct? Explain your answer.

Complete the diagrams.



What do you notice? Why does this happen?

Write $>$, $<$ or $=$ to compare the number sentences.

$$5,400 \div 10 \div 10 \div 10 \quad \bigcirc \quad 5,400 \div 1,000$$

$$60 \div 100 \div 10 \quad \bigcirc \quad 600 \div 100$$

$$5.7 \div 10 \quad \bigcirc \quad 57 \div 100$$

$$5,601 \div 1,000 \quad \bigcirc \quad 5.601 \div 10$$

Dexter is solving the calculation $5,400 \div 100$

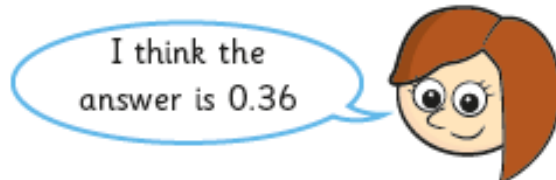


I think the
answer is 54.00

Is Dexter correct? _____

Explain your reasoning.

Rosie is solving the calculation $3,600 \div 200$



I think the
answer is 0.36

Is Rosie correct? _____

Explain your reasoning.

Tuesday

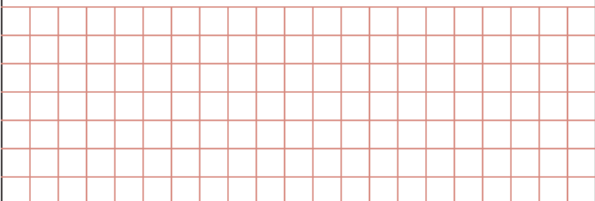
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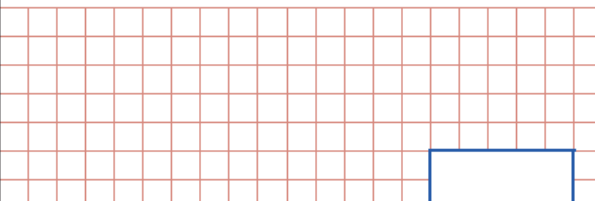
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Decimals: Multiply decimals by integers

Fluent in 5

1	$\frac{1}{3} + \frac{1}{6} =$	
		
		1 mark

2	- 18,573 = 22,749	
		
		1 mark

3	$8 \times 3 \times 3 =$	
		
		1 mark

4	$89.43 - 13.12 =$	
		
		1 mark

5	$37 \times 78 =$	
		
		2 marks

Mild

- 1 Use place value counters to solve the calculations.

a) $3.2 \times 3 =$

Ones	Tenths
1 1 1	0.1 0.1
1 1 1	0.1 0.1
1 1 1	0.1 0.1

b) $4.6 \times 2 =$

Ones	Tenths
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1

- 2 Solve the multiplication. Draw your answer.

$12.2 \times 3 =$

Tens	Ones	Tenths

Match the calculations to their products.

1.3×5

18.6

6.2×3

15.2

7.4×2

6.5

3.8×4

14.8

Select and arrange the cards to create a multiplication calculation.

5.2	4.1	20.5
5	21.5	4

$$\square \times \square = \square$$

Which cards are not needed?

Mrs Mills shares the calculation below with Class 6:

$$7.2 \times 4 =$$

Mia says,



The product is 11.2

What mistake has Mia made?

What is the correct answer?

Medium

Work out the multiplications.

a) $5.2 \times 4 =$

d) $= 2.34 \times 3$

b) $14.3 \times 3 =$

e) $11.505 \times 4 =$

c) $6 \times 9.1 =$

f) $9.602 \times 6 =$

0.25 kg of flour is needed to make one cake.
How much flour is needed to make four cakes?



Work out the multiplications.

a) $7.2 \times 2 =$

b) $= 3.45 \times 3$

$7.2 \times 4 =$

$= 34.5 \times 3$

$14.4 \times 4 =$

$= 345 \times 3$

$7.2 \times 8 =$

Circle the odd one out.

$$6.36 \times 4$$

$$4.88 \times 6$$

$$3.18 \times 8$$

Explain your reasoning.

Select and arrange the cards to create a multiplication calculation.

7.29	6	8.28	5
35.65	7.31	8	36.55

$$\square \times \square = \square$$

Which cards are not needed?

Spicy

Match the calculations to their products.

7.046×8

58.941

9.187×6

62.314

8.902×7

55.122

6.549×9

56.368

True or false?

$$6.024 \times 8 = 48.092$$

Amir is solving 3.4×4



To solve this, I
did 34×4 , which was 136
Then I multiplied my answer
by 10 to get an answer
of 1,360

Do you agree with Amir? _____

Explain why.

Use the digits 1, 2, 3 and 4 once each to create a calculation.

1	2	3	4
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	·			×	
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a) How many different products can you make?

b) What is the greatest possible product?

c) What is the smallest possible product?

d) What is the product closest to 12?

Select and arrange the cards to create a multiplication calculation.
Which cards are not needed?

53.468	7.706	8	7.607
68.463	9	6.706	69.534

	×		=	
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Which cards are not needed?

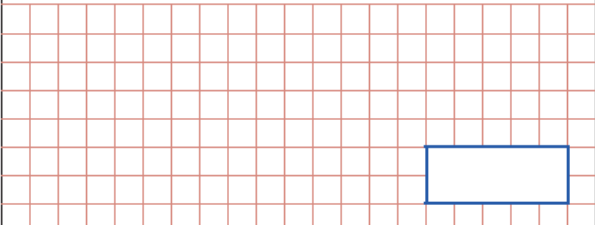
Wednesday

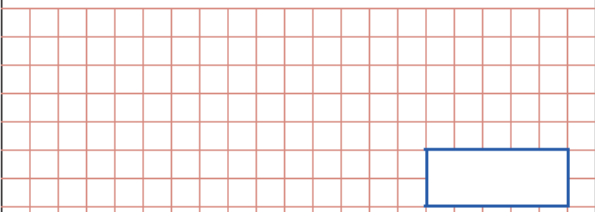
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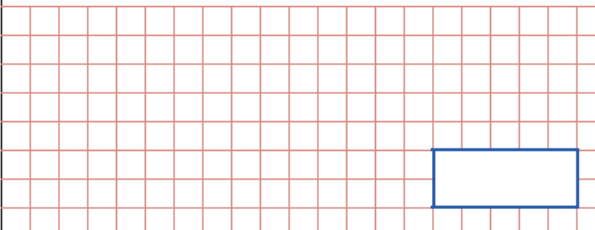
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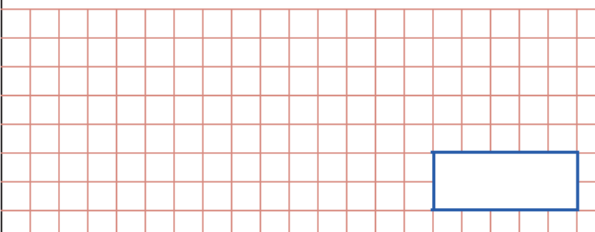
Decimals: Divide decimals by integers

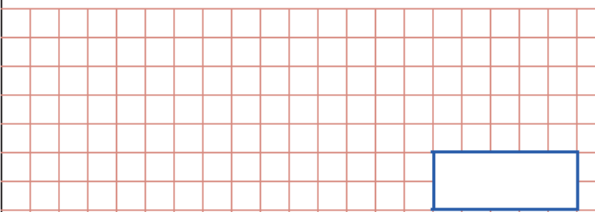
Fluent in 5

1	$87 \div 100 =$	
		
		1 mark

2	$5 \times 6 \times 5 =$	
		
		1 mark

3	$86.49 - 17.9 =$	
		
		1 mark

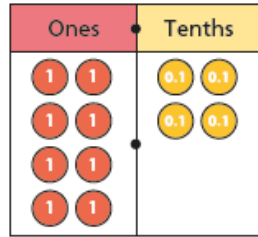
4	$\frac{1}{5} + \frac{4}{15} =$	
		
		1 mark

5	$3,842 \div 5 =$	
		
		1 mark

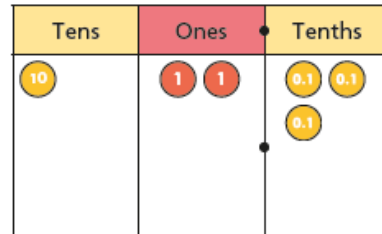
Mild

- 1 Use place value counters to work out the divisions.

a) $8.4 \div 4 =$

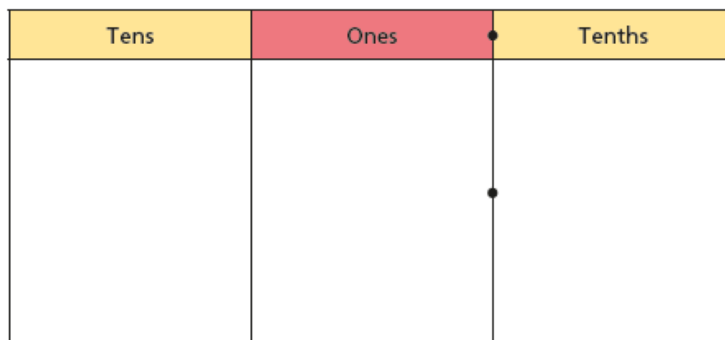


b) $12.3 \div 3 =$

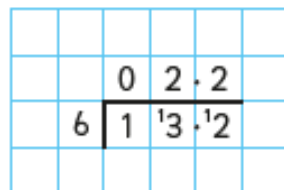


- 2 Work out the division. Draw your answer.

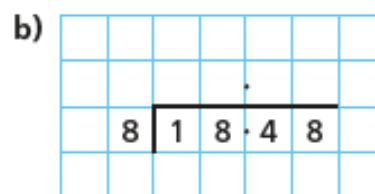
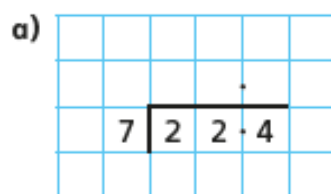
$16.4 \div 4 =$



- 3 Brett uses short division to work out $13.2 \div 6$



Use short division to work out the calculations.



4a. Jaiden says:



I think that the answers to $2.4 \div 2$ and $9.6 \div 3$ are the same.

:

4b. Millie says



I think that $8.8 \div 2$ is greater than $5.5 \div 5$.

Is he correct? Explain how you know.

Is she correct? Explain how you know.

Medium

Brett uses short division to work out $13.2 \div 6$

		0	2	.	2
6		1	3	.	2

Use short division to work out the calculations.

a)

				.	
7		2	2	.	4

b)

				.	
8		1	8	.	4

Work out the divisions.

a) $25.6 \div 8 =$

d) $= 19.45 \div 5$

b) $14.8 \div 4 =$

e) $202.35 \div 3 =$

c) $18.48 \div 6 =$

f) $105.12 \div 9 =$

Florence says:



I think that the answers to
 $4.48 \div 4$ and $3.36 \div 3$ are
the same.

Is she correct? Explain how you know.

Ben says:



I think that
 $8.88 \div 8$ is greater than
 $4.44 \div 4$.

Is he correct? Explain how you know.

Spicy

Work out the divisions.

a) $9.64 \div 4 =$

$96.4 \div 4 =$

$0.964 \div 4 =$

$9.64 \div 8 =$

b) $19.44 \div 9 =$

$19.53 \div 9 =$

$19.62 \div 9 =$

Fill in the missing numbers.

$3.6 \div 4 = 36 \div$

$3.6 \div 4 =$ $\div 8$

Complete the calculation.

$8.4 \div$ $= 4.2 \div$

How many different solutions can you find?

9a. Nadia says:



I think that the answers to
 $9.018 \div 9$ and $3.006 \div 3$
are the same.

Is she correct? Explain how you know.

Ben says:



I think that
 $10.105 \div 5$ is greater than
 $14.707 \div 7$.

Is he correct? Explain how you know.

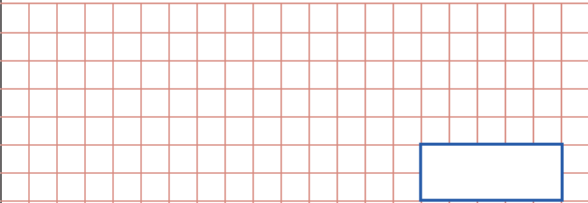
Thursday

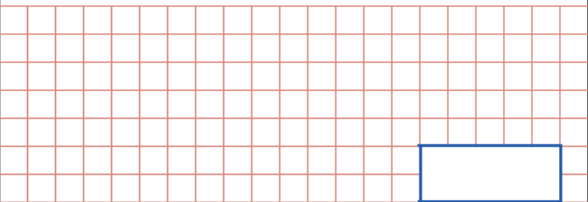
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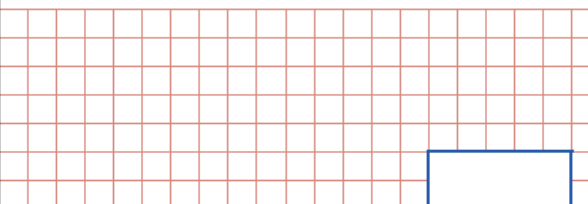
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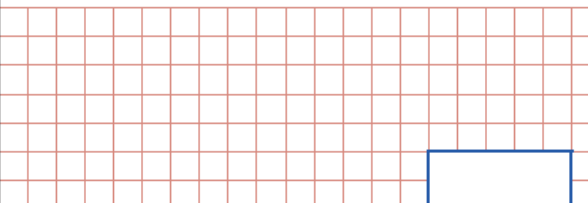
Decimals: Convert from a decimal into a fraction and simplify

Fluent in 5

1	$\frac{2}{9} + \frac{1}{3} =$	
		
		1 mark

2	$3 \times 0 \times 9 =$	
		
		1 mark

3	$76.4 - 16.53 =$	
		
		1 mark

4	$76.39 - 13.2 =$	
		
		1 mark

5	$8,473 + 12,987 =$	
		
		1 mark

Mild

10s Tens	1s Units	$\frac{1}{10}$ s Tenths	$\frac{1}{100}$ s Hundredths	$\frac{1}{1000}$ s Thousandths
0	.	0	0	7

$$0.007 = \frac{7}{1000}$$

1 Complete the sentences.

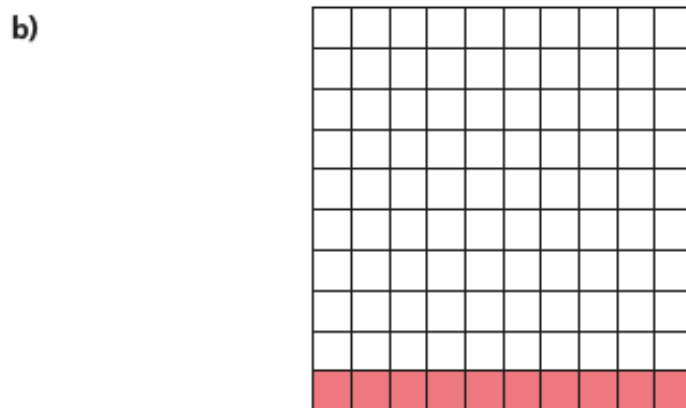
a)

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

The whole has been divided into equal parts.

Each part is worth

This is equivalent to

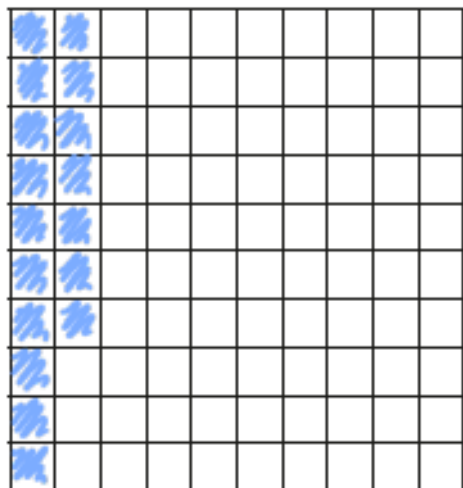


The whole has been divided into equal parts.

Each part is worth

parts out of are shaded.

This is equivalent to

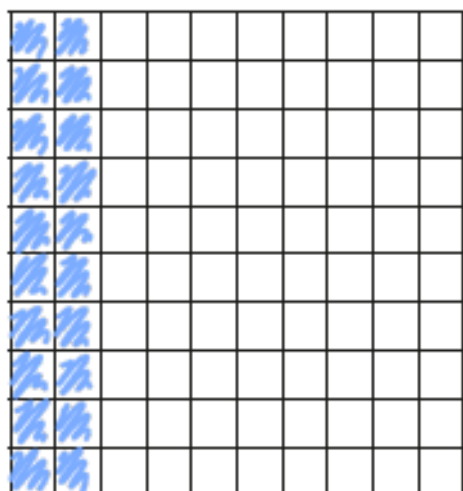


Complete the sentence.

parts out of are shaded.

Write 0.17 as a fraction.

0.17 =



Complete the sentence.

parts out of are shaded.

Write 0.2 as a fraction in its simplest form.

0.2 =

Convert the following decimals to their equivalent fractions. Please write the fractions in their simplest form, where possible. The first one has been done for you.

1. $0.27 = \frac{27}{100}$

2. $0.50 = \underline{\hspace{2cm}}$

3. $0.30 = \underline{\hspace{2cm}}$

4. $0.64 = \underline{\hspace{2cm}}$

5. $0.55 = \underline{\hspace{2cm}}$

6. $0.60 = \underline{\hspace{2cm}}$

7. $0.45 = \underline{\hspace{2cm}}$

8. $0.80 = \underline{\hspace{2cm}}$

Medium

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

0.2	0.2	0.2	0.2	0.2
-----	-----	-----	-----	-----

Use the bar models to fill in the missing numbers.

$$0.2 = \frac{\boxed{}}{10} = \frac{1}{\boxed{}}$$

$$0.4 = \frac{\boxed{}}{10} = \frac{2}{\boxed{}}$$

$$\boxed{} = \frac{\boxed{}}{10} = \frac{4}{5}$$

Fill in the missing numbers.

$$\text{a) } 0.54 = \frac{\boxed{}}{100} = \frac{\boxed{}}{50}$$

$$\text{b) } 0.6 = \frac{\boxed{}}{10} = \frac{\boxed{}}{5}$$

$$\text{c) } 0.3 = \frac{\boxed{}}{10} = \frac{\boxed{}}{100}$$

$$\text{d) } \boxed{} = \frac{9}{100}$$

$$\text{e) } \boxed{} = \frac{9}{10}$$

$$\text{f) } \frac{21}{50} = \frac{\boxed{}}{100} = \boxed{}$$

Convert the following decimals to their equivalent fractions. Please write the fractions in their simplest form, where possible. The first one has been done for you.

$$1. 0.86 = \frac{43}{50}$$

$$2. 0.38 = \underline{\hspace{2cm}}$$

$$3. 0.54 = \underline{\hspace{2cm}}$$

$$4. 0.06 = \underline{\hspace{2cm}}$$

$$5. 0.46 = \underline{\hspace{2cm}}$$

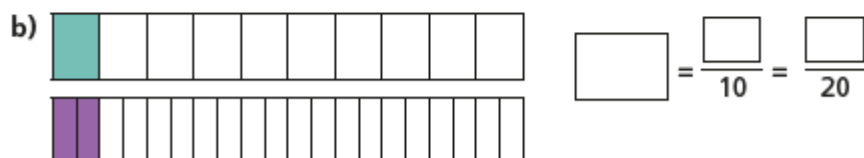
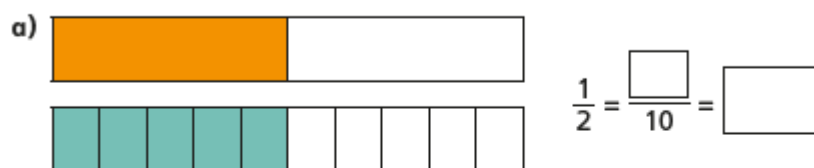
$$6. 0.22 = \underline{\hspace{2cm}}$$

$$7. 0.87 = \underline{\hspace{2cm}}$$

$$8. 0.25 = \underline{\hspace{2cm}}$$

Spicy

Use the bar models to fill in the missing numbers.



Convert the following decimals to their equivalent fractions. Please write the fractions in their simplest form, where possible. The first one has been done for you.

1. $1.78 = 1 \frac{39}{50}$

2. $0.73 = \frac{}{}$

3. $0.05 = \frac{}{}$

4. $1.65 = \frac{}{}$

5. $0.08 = \frac{}{}$

6. $0.07 = \frac{}{}$

7. $1.81 = \frac{}{}$

8. $1.55 = \frac{}{}$

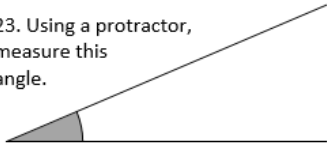
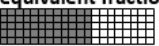
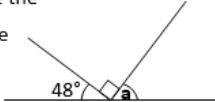
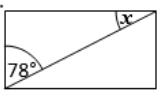
Friday

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

Challenge Day!

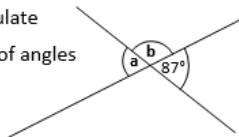
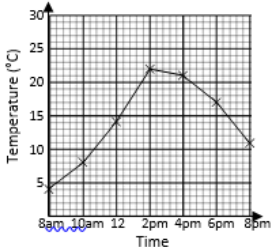
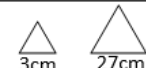
Key Skills

Mild

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Geometry and Problem Solving	
1. What is the value of the 9 in this number? 2,934,765	5:1	11. Circle all the multiples of 11. 11 54 78 121	5:8	21. A jug had 1.317 litres in it. A further 0.923 litres was added to it. How many litres are in the jug now?	5:18
2. Write fifty seven thousand, two hundred and thirty eight in digits.	5:1	12. Circle the composite (non-prime) numbers? 2 3 9 13 15	5:9		
3. Round 163,824 to the nearest hundred thousand .	5:2	13. 4,962 x 6	5:10	22. Which of these is the largest?	5:19
4. What is the missing number? 366,270 266,270 66,270	5:2	14. 670.2 ÷ 10	5:11	a. 55% b. $\frac{3}{5}$ c. 0.4	
5. Find the difference in temperatures. London -1°C Glasgow -9°C	5:3	15. Complete this sequence of cube numbers . 1 8 64	5:12	23. Using a protractor, measure this angle.	5:25
6. Write this number in Roman Numerals: 509	5:4	16. Write $\leq$, $=$ or $>$ to make this correct: $\frac{1}{3}$ $\frac{5}{9}$	5:13		
7. 85,248 – 38,049 =	5:5	17. Find an equivalent fraction of $\frac{6}{10}$. 	5:14	24. Calculate the missing angle labelled a : 	5:26
8. 38,049 + 85,248 =	5:5	18. Write $4\frac{1}{2}$ as an improper fraction .	5:15		
9. Complete this sum without written working. 13,200 + 6,450 =	5:6	19. $\frac{5}{8} \times 24 =$	5:16	25. A diagonal has been drawn through this rectangle. Calculate the angle labelled x . 	5:27
10. 38,276 seats out of 40,000 are taken. How many are empty?	5:7	20. Round 3.71 to the nearest whole number.	5:17		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	

Key Skills

Medium and Spicy

A: Place Value, Add, Subtract, Multiply and Divide		B: Fractions, Ratio, Proportion and Algebra		C: Measure and Problem Solving	
1. Write six million, four hundred and twenty thousand, and thirty in digits.	6:1	11. Which is the largest fraction? $\frac{5}{9}$, $\frac{17}{27}$ or $\frac{27}{54}$	6:7	21. Name the shape: "I have 1 pair of unequal parallel sides."	6:24
2. What is the value of the 6 in this number? 3,954,682	6:1	12. $\frac{1}{7} + \frac{1}{9} =$	6:8	22. The radius of a circle is 9.5cm. How long is the diameter ?	6:25
3. Round 8,523,912 to the nearest thousand .	6:1	13. Simplify your answer. $\frac{2}{9} \times \frac{3}{4} =$	6:9	23. Calculate the size of angles a and b . 	6:26
4. To a number I add 12 then subtract 20 and get -4. What did I start with?	6:2	14. $3.12 \div 10$	6:10	24. Line graph showing temperatures at different times over a day: 	6:29
5. $1,922 \times 48$	6:3	15. 3.97×8	6:11		
6. Give your answer to the nearest whole number : $4,453 \div 15$	6:3	16. Write this fraction as a decimal and a percentage . $\frac{1}{4}$	6:12		
7. Which is a common multiple of 20 and 30? 60 40 15 10 4	6:4	17. Find 80% of 90.	6:13		
8. Circle all the prime numbers : 85 89 97 99	6:4	18. What is the scale factor ? 	6:14	Describe how the temperature changed over the course of the day.	6:30
9. $28 \div (8 + 6) \times 7$	6:5	19. How long does a 7kg chicken take? To cook: 1 hour + 25mins per kg.	6:15		
10. How much cheaper is a meal? Burger £1.89 Fries £1.09 Meal £2.50	6:6	20. What is the rule for this sequence? 5, 11, 23, 47, 95, ...	6:16	25. Find the mean of these numbers: 23 27 20 18 22	6:30
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	