

Homework Sheet 1: Multiplying And Dividing By 10, 100, 1000

Work out

- | | |
|------------------------------|----------------------------------|
| 1 286×10 | 11 $730 \div 10$ |
| 2 $13\,700 \times 10$ | 12 $28\,000 \div 10$ |
| 3 4130×100 | 13 $8700 \div 100$ |
| 4 407×1000 | 14 $1\,900\,000 \div 100$ |
| 5 $590\,000 \times 10$ | 15 $50\,000 \div 1000$ |
| 6 91×100 | 16 $4\,300\,000 \div 10$ |
| 7 35×1000 | 17 $3\,006\,000 \div 1000$ |
| 8 800×100 | 18 $505\,000 \div 100$ |
| 9 $261\,000 \times 10$ | 19 $1400 \div 10$ |
| 10 6000×1000 | 20 $460\,000 \div 1000$ |

Complete by writing the missing number.

- | | |
|--------------------------------------|-------------------------------|
| 21 $\times 10 = 1820$ | 27 $\div 10 = 7000$ |
| 22 $\times 10 = 37\,800$ | 28 $\div 10 = 452\,360$ |
| 23 $\times 100 = 12\,000$ | 29 $\div 100 = 804$ |
| 24 $\times 100 = 923\,000$ | 30 $\div 100 = 83\,100$ |
| 25 $\times 1000 = 168\,000$ | 31 $\div 1000 = 1000$ |
| 26 $\times 1000 = 1\,394\,000$ | 32 $\div 1000 = 530$ |

How many centimetres make:

- 33 380 m
- 34 2000 m?

How many metres make:

- 35 72 km
- 36 4500 km?

Homework Sheet 2: Rounding

To round to the nearest 10 look at the units column.

To round to the nearest 100 look at the tens column.

To round to the nearest 1000 look at the hundreds column.

If the number is less than 5, round up.

If the number is 5 or greater than 5, round up.

Round these numbers to the nearest:

10

100

1000

- | | | |
|----------------|-----------------|-----------------|
| 1 873 | 9 1390 | 17 7200 |
| 2 1428 | 10 16 428 | 18 13 643 |
| 3 3045 | 11 38 476 | 19 35 520 |
| 4 25 236 | 12 23 954 | 20 78 376 |
| 5 19 592 | 13 62 747 | 21 20 800 |
| 6 76 407 | 14 9068 | 22 49 438 |
| 7 42 155 | 15 79 939 | 23 29 500 |
| 8 36 564 | 16 7250 | 24 60 924 |

Approximate by rounding to the nearest whole one.

- 25 $9\cdot1 + 8\cdot8$ is about $\boxed{9} + \boxed{} = \boxed{}$
- 26 $8\cdot4 + 2\cdot5$ is about $\boxed{} + \boxed{} = \boxed{}$
- 27 $17\cdot2 - 4\cdot9$ is about $\boxed{} - \boxed{} = \boxed{}$
- 28 $28\cdot6 - 11\cdot8$ is about $\boxed{} - \boxed{} = \boxed{}$
- 29 $18\cdot3 \times 4\cdot9$ is about $\boxed{} \times \boxed{} = \boxed{}$
- 30 $7\cdot8 \times 7\cdot1$ is about $\boxed{} \times \boxed{} = \boxed{}$
- 31 $64\cdot8 \div 4\cdot9$ is about $\boxed{} \div \boxed{} = \boxed{}$
- 32 $53\cdot5 \div 6\cdot1$ is about $\boxed{} \div \boxed{} = \boxed{}$

Homework Sheet 3: Number Sequences

To find the rule that links the numbers study the gaps.

Examples -5 -1 3 7 11 The rule is 'add 4'.

0.8 0.7 0.6 0.5 0.4 The rule is 'subtract 0.1'.

Fill in the numbers in each sequence.

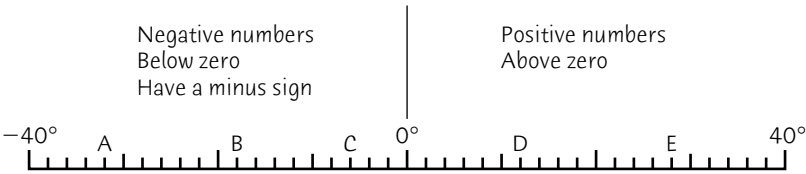
	Rule	Start at							
1	$+0.4$	0.6	1.0	1.4					
2	-20	255							
3	$+10$	-47							
4	-0.9	7.4							
5	$+8$	69							
6	-3	12							
7	$+0.05$	1.3							
8	-19	165							

Complete the sequences by filling in the boxes.

9	-22	-17	-12	-7				
10	17.5	16.4	15.3	14.2				
11					625	700	775	850
12					-2	-6	-10	-14
13			1.05	1.1	1.15	1.2		
14			148	127	106	85		
15	-30	-23	-16	-9				
16	31	28.5	26	23.5				

Homework Sheet 4: Negative Numbers

We often use negative numbers in the context of temperature



Write the temperature shown by each letter

- 1 A 2 B 3 C 4 D 5 E

What is the difference in temperature between:

- 6 A and D 8 B and D 10 C and D
7 A and C 9 C and E 11 B and E?

What would the temperature be if it was:

- 12 at B and rose 36° 15 at A and rose 58°
13 at D and rose 20° 16 at E and rose 44°
14 at C and rose 22° 17 at C and rose 40°?

Complete the tables showing changes in temperature.

18

OLD	CHANGE	NEW
-7°	+16°	
8°	-24°	
-21°	-17°	
-16°	+31°	
-43°	-29°	
15°	-27°	

19

OLD	CHANGE	NEW
	-29°	-18°
	-28°	-7°
	+22°	13°
	-55°	-32°
	+60°	3°
	-31°	-14°

Homework Sheet 5: Multiples

Multiples are the numbers in a multiplication table.

7, 14, 21 ... 77, 84, 91 ... 140, 147, 154 are multiples of 7.

Complete the first 8 multiples of the number in the first box.

1	15	30	45					
2	12							
3	9							
4	75							
5	30							

Write Yes or No.

- | | |
|-----------------------------------|-----------------------------------|
| 6 Is 64 a multiple of 8? | 13 Is 300 a multiple of 40? |
| 7 Is 122 a multiple of 11? | 14 Is 108 a multiple of 9? |
| 8 Is 105 a multiple of 21? | 15 Is 78 a multiple of 13? |
| 9 Is 87 a multiple of 7? | 16 Is 84 a multiple of 7? |
| 10 Is 153 a multiple of 17? | 17 Is 410 a multiple of 20? |
| 11 Is 96 a multiple of 16? | 18 Is 200 a multiple of 8? |
| 12 Is 86 a multiple of 40? | 19 Is 175 a multiple of 15? |

Draw a circle around the numbers which are *not* multiples of:

- | | |
|---|--|
| 20 13 52 117 63 91 75 | 22 19 56 114 95 179 152 |
| 21 35 280 235 105 270 315 | 23 22 242 112 88 154 202 |

Write two numbers that are multiples of both:

- | | |
|---|--|
| 24 5 and 11 | 26 20 and 25 |
| 25 7 and 4 | 27 3 and 13. |

Homework Sheet 6: Divisibility Tests

Whole numbers are divisible by:

100 if the last two digits are 00

2 if the number is even

3 if the sum of the digits is divisible by 3

6 if the number is even and divisible by 3

9 if the sum of the digits is divisible by 9

10 if the last digit is 0

5 if the last digit is 0 or 5

4 if the last 2 digits are divisible by 4

8 if the last 3 digits are divisible by 8

25 if the last 2 digits are 00, 25, 50 or 75.

Write T (True) or F (False) in each box.

- 1

3915 is divisible by 5.

☐
- 2

1485 is divisible by 3.

☐
- 3

705 is divisible by 10.

☐
- 4

4132 is divisible by 8.

☐
- 5

2574 is divisible by 6.

☐
- 6

2245 is divisible by 2.

☐
- 7

5787 is divisible by 9.

☐
- 8

420 is divisible by 100.

☐
- 9

875 is divisible by 25.

☐
- 10

1392 is divisible by 4.

☐
- 11

1436 is divisible by 6.

☐
- 12

2376 is divisible by 8.

☐

13 Complete the table using ticks and crosses to show divisibility.

	DIVISIBLE BY							
NUMBER	3	4	5	6	8	9	10	25
600	✓							
855	✓							
216	✓							
250	✗							
384								
750								

Homework Sheet 7: Prime Numbers

THE SEIVE OF ERASTOSTHENES

Erastosthenes was a famous mathematician in Ancient Greece. He discovered a way of finding prime numbers known as the "Seive of Erastosthenes". A prime number is a number which is divisible only by itself and one. Note that 1 is *not* a prime number. Use five different coloured pens or pencils.

Follow the directions to find the prime numbers to 100.

- 1 Cross out 1 with a pencil.
- 2 Draw a circle around 2, 3, 5 and 7 with the same pencil.
- 3 Use a different colour. Cross out all the multiples of 2, leaving 2 itself.
- 4 Use a third colour. Cross out all the multiples of 3, except for 3.
- 5 Use a fourth colour. Cross out all the multiples of 5, except for 5.
- 6 Use a fifth colour. Cross out all the multiples of 7, except for 7.
- 7 Use your first colour again. Draw circles around all the numbers that are left. These are the prime numbers to 100.

8

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

How many prime numbers have you found?

Write out the prime numbers.

.....

Homework Sheet 8: Equivalent Fractions

Complete these equivalent fractions.

- 1 $\frac{1}{2} = \frac{\boxed{}}{16}$

5 $\frac{1}{8} = \frac{5}{\boxed{}}$

9 $\frac{3}{10} = \frac{\boxed{}}{100}$

13 $\frac{1}{5} = \frac{20}{\boxed{}}$
- 2 $\frac{4}{5} = \frac{\boxed{}}{15}$

6 $\frac{3}{4} = \frac{12}{\boxed{}}$

10 $\frac{2}{9} = \frac{\boxed{}}{27}$

14 $\frac{2}{3} = \frac{10}{\boxed{}}$
- 3 $\frac{7}{10} = \frac{\boxed{}}{50}$

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

11 $\frac{1}{4} = \frac{\boxed{}}{20}$

15 $\frac{7}{8} = \frac{14}{\boxed{}}$
- 4 $\frac{1}{6} = \frac{\boxed{}}{12}$

8 $\frac{4}{7} = \frac{8}{\boxed{}}$

12 $\frac{2}{5} = \frac{\boxed{}}{40}$

16 $\frac{5}{7} = \frac{20}{\boxed{}}$

Cancel each fraction into its simplest form.

- 17 $\frac{\cancel{15}}{\cancel{25}} \frac{3}{5}$

20 $\frac{9}{18}$

23 $\frac{15}{18}$

26 $\frac{18}{24}$

29 $\frac{42}{48}$
- 18 $\frac{6}{8}$

21 $\frac{45}{50}$

24 $\frac{16}{36}$

27 $\frac{70}{100}$

30 $\frac{22}{55}$
- 19 $\frac{15}{24}$

22 $\frac{24}{36}$

25 $\frac{6}{21}$

28 $\frac{16}{20}$

31 $\frac{32}{48}$

Pick out the letters above the fractions equivalent to the fraction in the bracket.
Rearrange these letters to make a word using the clue.

- 32 $\left(\frac{2}{5}, \text{ a girl's name}\right)$

L	A	C	M	I	N	T	D	A	Y	E	B
$\frac{8}{25}$	$\frac{4}{10}$	$\frac{12}{50}$	$\frac{25}{60}$	$\frac{16}{40}$	$\frac{12}{30}$	$\frac{6}{10}$	$\frac{8}{20}$	$\frac{25}{35}$	$\frac{15}{40}$	$\frac{24}{60}$	$\frac{10}{20}$

- 33 $\left(\frac{1}{3}, \text{ a boy's name}\right)$

P	Y	R	O	N	G	H	A	R	N	L	E
$\frac{6}{15}$	$\frac{8}{24}$	$\frac{2}{6}$	$\frac{10}{25}$	$\frac{6}{9}$	$\frac{9}{18}$	$\frac{5}{15}$	$\frac{15}{50}$	$\frac{12}{30}$	$\frac{12}{36}$	$\frac{6}{20}$	$\frac{4}{12}$

Homework Sheet 9: Improper Fractions

Examples Change $\frac{17}{6}$ to a mixed number.

Divide numerator by denominator.

$$17 \div 6 = 2 \text{ rem. } 5$$

Put remainder over denominator.

$$\frac{17}{6} = 2\frac{5}{6}$$

Change $5\frac{3}{8}$ to an improper fraction.

Multiply whole number by denominator.

$$5 \times 8 = 40$$

Add the numerator.

$$40 + 3 = 43$$

Put the sum over denominator.

$$5\frac{3}{8} = \frac{43}{8}$$

Complete these equivalent fractions.

1 $\frac{17}{3} = 5\frac{2}{3}$

5 $\frac{35}{8} = \dots\dots\dots$

9 $\frac{341}{100} = \dots\dots\dots$

13 $\frac{31}{14} = \dots\dots\dots$

2 $\frac{43}{5} = \dots\dots\dots$

6 $\frac{73}{20} = \dots\dots\dots$

10 $\frac{45}{7} = \dots\dots\dots$

14 $\frac{383}{50} = \dots\dots\dots$

3 $\frac{31}{4} = \dots\dots\dots$

7 $\frac{31}{6} = \dots\dots\dots$

11 $\frac{139}{25} = \dots\dots\dots$

15 $\frac{100}{11} = \dots\dots\dots$

4 $\frac{97}{10} = \dots\dots\dots$

8 $\frac{41}{15} = \dots\dots\dots$

12 $\frac{57}{16} = \dots\dots\dots$

16 $\frac{62}{9} = \dots\dots\dots$

Change to improper fractions.

17 $3\frac{1}{6} = \frac{19}{6}$

21 $5\frac{3}{4} = \frac{\boxed{}}{\boxed{}}$

25 $4\frac{7}{13} = \frac{\boxed{}}{\boxed{}}$

29 $7\frac{22}{25} = \frac{\boxed{}}{\boxed{}}$

18 $11\frac{4}{5} = \frac{\boxed{}}{5}$

22 $6\frac{3}{10} = \frac{\boxed{}}{\boxed{}}$

26 $8\frac{5}{9} = \frac{\boxed{}}{\boxed{}}$

30 $5\frac{6}{11} = \frac{\boxed{}}{\boxed{}}$

19 $4\frac{79}{100} = \frac{\boxed{}}{100}$

23 $14\frac{1}{3} = \frac{\boxed{}}{\boxed{}}$

27 $3\frac{8}{15} = \frac{\boxed{}}{\boxed{}}$

31 $6\frac{7}{8} = \frac{\boxed{}}{\boxed{}}$

20 $3\frac{5}{12} = \frac{\boxed{}}{12}$

24 $5\frac{21}{50} = \frac{\boxed{}}{\boxed{}}$

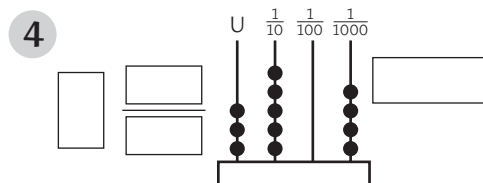
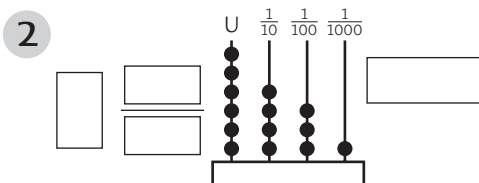
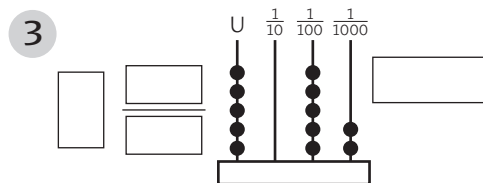
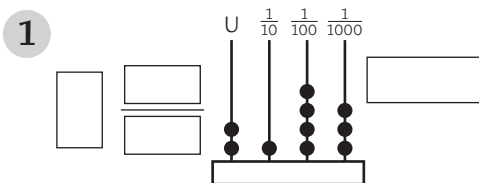
28 $4\frac{6}{7} = \frac{\boxed{}}{\boxed{}}$

32 $5\frac{7}{19} = \frac{\boxed{}}{\boxed{}}$

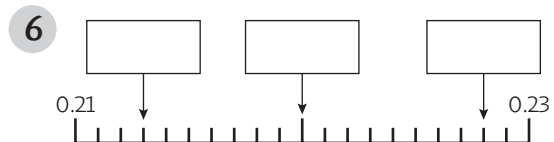
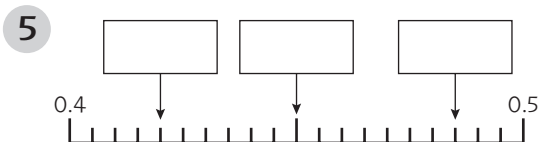
Homework Sheet 10: Decimal Fractions

Examples	$\frac{8}{10} = 0.8$	$\frac{17}{100} = 0.17$	$\frac{238}{1000} = 0.238$
	$419\frac{7}{10} = 419.7$	$65\frac{23}{100} = 65.23$	$1\frac{19}{1000} = 1.019$

Write the number shown on each abacus as a mixed number and as a decimal fraction.



Write the decimal fraction shown by each arrow in the box.



Write each number as a decimal fraction.

- | | | |
|------------------------------|------------------------------|------------------------------|
| 7 $5\frac{35}{100}$ | 11 $\frac{7}{10}$ | 15 $1\frac{425}{1000}$ |
| 8 $19\frac{872}{1000}$ | 12 $2\frac{63}{1000}$ | 16 $3\frac{6}{1000}$ |
| 9 $\frac{654}{1000}$ | 13 $4\frac{579}{1000}$ | 17 $10\frac{3}{100}$ |
| 10 $1\frac{138}{1000}$ | 14 $\frac{1}{1000}$ | 18 $8\frac{17}{1000}$ |

Write the value of the underlined figure.

- | | | |
|-------------------------|--------------------------|-------------------------|
| 19 <u>3</u> 6.4 | 22 4. <u>9</u> 5 | 25 64. <u>7</u> 1 |
| 20 1.5 <u>3</u> 9 | 23 74. <u>3</u> 29 | 26 <u>2</u> 9.534 |
| 21 21.8 <u>7</u> | 24 0.61 <u>8</u> | 27 8.10 <u>3</u> |

Homework Sheet 11: Ordering Decimals

Draw a circle around the larger of each pair of numbers.

1 $3\cdot21$ $2\cdot313$

3 $5\cdot335$ $5\cdot353$

5 $2\cdot16$ $2\cdot156$

2 $1\cdot177$ $1\cdot7$

4 $7\cdot811$ $7\cdot118$

6 $1\cdot499$ $1\cdot94$

7 Locate the numbers on the line.

2.0	1.994	2.008	1.997	2.003
-----	-------	-------	-------	-------



Arrange the decimals in ascending order.

8 $4\cdot336$ $3\cdot346$ $4\cdot36$ $4\cdot63$ $3\cdot46$

9 $0\cdot827$ $0\cdot78$ $0\cdot708$ $7\cdot08$ $0\cdot782$

10 $5\cdot44$ $5\cdot434$ $5\cdot343$ $3\cdot455$ $3\cdot54$

11 $9\cdot22$ $2\cdot922$ $9\cdot229$ $2\cdot99$ $9\cdot29$

12 $1\cdot111$ $1\cdot1$ $11\cdot11$ $1\cdot11$ $11\cdot1$

Complete by writing $>$ (greater than), $<$ (less than) or $=$ in the box.

13 $2\cdot74$ $2\cdot471$

16 $6\cdot810$ $6\cdot81$

19 $7\cdot777$ $70\cdot07$

14 $3\cdot015$ $3\cdot105$

17 $7\cdot8941$ $9\cdot471$

20 $2\cdot1$ $2\cdot100$

15 $4\cdot2$ $4\cdot022$

18 $0\cdot103$ $0\cdot048$

21 $5\cdot09$ $5\cdot009$

Homework Sheet 12: Fractions of Quantities

Examples $\frac{1}{9}$ of 720 = $720 \div 9$ $\frac{4}{7}$ of 350 = $(350 \div 7) \times 4$
 $= 80$ $= 50 \times 4 = 200$

What fraction of 1 litre is 150 ml?

Answer = $\frac{150}{1000} = \frac{15}{100} = \frac{3}{20}$, because 1 litre = 1000 ml.

Work out

- | | |
|--------------------------------------|---|
| 1 $\frac{9}{10}$ of 200 | 7 $\frac{5}{9}$ of 180 g |
| 2 $\frac{2}{5}$ of 300 | 8 $\frac{53}{100}$ of 1 kg |
| 3 $\frac{3}{8}$ of 96 | 9 $\frac{7}{10}$ of 1 kg |
| 4 $\frac{37}{100}$ of 1 m cm | 10 $\frac{111}{1000}$ of 1 litre ml |
| 5 $\frac{5}{6}$ of 180 m m | 11 $\frac{4}{10}$ of 1 litre ml |
| 6 $\frac{747}{1000}$ of 1 m mm | 12 $\frac{9}{100}$ of 1 litre ml |

Give each answer as a fraction in its simplest form. What fraction of:

- | | | |
|--|--|---|
| 13 £1 is 13p $\frac{\boxed{}}{\boxed{}}$ | 16 1 litre is 50 ml $\frac{\boxed{}}{\boxed{}}$ | 19 1 m is 40 cm $\frac{\boxed{}}{\boxed{}}$ |
| 14 £1 is 45p $\frac{\boxed{}}{\boxed{}}$ | 17 1 litre is 630 ml $\frac{\boxed{}}{\boxed{}}$ | 20 1 m is 17 cm $\frac{\boxed{}}{\boxed{}}$ |
| 15 £1 is 72p $\frac{\boxed{}}{\boxed{}}$ | 18 1 litre is 183 ml $\frac{\boxed{}}{\boxed{}}$ | 21 1 m is 35 cm $\frac{\boxed{}}{\boxed{}}$ |

- 22 A roll of cloth is 15 metres long.
 Three quarters of the cloth is used.
 How much is left?

$\boxed{}$ m

$\boxed{}$ cm

- 23 There are 360 children in a primary school.
 Four ninths of the children are in the lower school.
 How many children are there in the upper school?

$\boxed{}$

Homework Sheet 13: Percentages

You need to know that:

$$1 = \frac{100}{100} = 1.0 = 100\%$$

$$\frac{1}{4} = \frac{25}{100} = 0.25 = 25\%$$

$$\frac{1}{10} = \frac{10}{100} = 0.1 = 10\%$$

$$\frac{1}{2} = \frac{50}{100} = 0.5 = 50\%$$

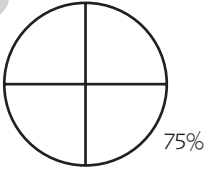
$$\frac{1}{5} = \frac{20}{100} = 0.2 = 20\%$$

$$\frac{3}{4} = \frac{75}{100} = 0.75 = 75\%$$

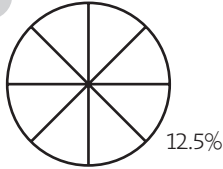
$$\frac{1}{100} = 0.01 = 1\%$$

Shade the following percentages.

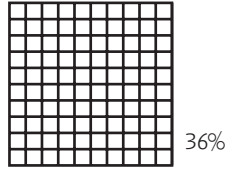
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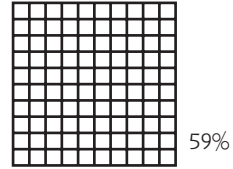
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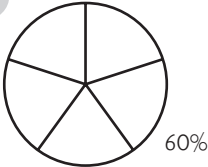
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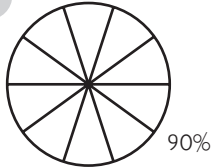
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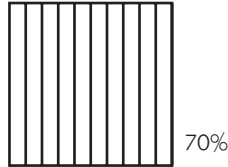
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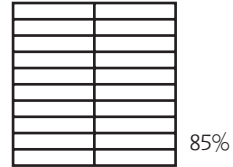
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6



8



9 Complete the table.

Fractions	$\frac{1}{2}$						$\frac{1}{4}$	$\frac{3}{10}$	$\frac{4}{5}$
Decimals	0.5			0.03	0.72	0.4			
Percentages	50%	17%	90%						

10 What percentage of the boxes contain:

a) ticks %

b) crosses %

c) circles %

	✓	○	○	×		○	✓
○		○	✓		✓	○	
	○		○	×			○
✓	×	○		✓	○	○	
○		✓	○	○	✓	×	○

Homework Sheet 14: Percentages of Numbers

Examples	$70\% \text{ of } £2.00 = \frac{7}{10} \text{ of } £2.00$	$75\% \text{ of } 160 = \frac{3}{4} \text{ of } 160$
	$\frac{1}{10} \text{ of } £2.00 = 20p$	$\frac{1}{4} \text{ of } 160 = 40$
	$\frac{7}{10} \text{ of } £2.00 = 7 \times 20p$	$\frac{3}{4} \text{ of } 160 = 3 \times 40$
	$= £1.40$	$= 120 + 3p$

Find 30% of:

Find 1% of:

Find 75% of:

- | | | | | | |
|----------------|---------------------------|------------------|-------|------------------|-------|
| 1 80 | ²⁴ | 5 6000 | ..... | 9 800 | ..... |
| 2 500 | ..... | 6 £4.00 | ..... | 10 52 | ..... |
| 3 £2.50 | ..... | 7 250 | ..... | 11 £50.00 | ..... |
| 4 40p. | ..... | 8 £75.00. | ..... | 12 12p. | ..... |

Work out:

- | | | | | | |
|----------------------|-------|-------------------------|-------|------------------------|-------|
| 13 10% of 39 | ..... | 17 1% of 260 | ..... | 21 25% of £3.60 | ..... |
| 14 20% of 75 | ..... | 18 5% of 30 | ..... | 22 2% of £45.00 | ..... |
| 15 50% of 11 | ..... | 19 40% of £1.20 | ..... | 23 60% of £1.50 | ..... |
| 16 75% of 480 | ..... | 20 70% of £20.00 | ..... | 24 1% of £5.00 | ..... |
- 25** There are 240 patients in a hospital.
20% of the patients are children. How many are adults?
- 26** Sourav's meal cost £4.50. Ainlee's meal cost 30% more.
How much did Ainlee's meal cost?

Homework Sheet 15: Ratio and Proportion

1



4



2



5



3



6



For each of the above patterns give:

- a) the ratio of shaded squares to unshaded squares.
- b) the proportion of shaded squares as a fraction of the total number of squares.

1 a) 1 shaded square to every unshaded

b) $\frac{1}{\square}$

2 a) 1 shaded square to every unshaded

b) $\frac{1}{\square}$

3 a) 1 shaded square to every unshaded

b) $\frac{1}{\square}$

4 a) 1 shaded square to every unshaded

b) $\frac{1}{\square}$

5 a) 1 shaded square to every unshaded

b) $\frac{1}{\square}$

6 a) 1 shaded square to every unshaded

b) $\frac{1}{\square}$

7 A farmer has 2 cows to every 5 sheep. There are 64 cows on the farm. How many sheep are there?

8 There are 45 children in Year 6. Three in every five are boys. How many girls are there?

9 For every 2 packets of plain crisps sold, 7 flavoured packets are sold. Altogether 63 packets are sold. How many of these were plain?

10 In November, 3 in every 7 children in a class were absent at least once. There are 28 children in the class. How many of the children did not miss a day?

Homework Sheet 16: Informal Methods For Addition

Examples	$\begin{array}{r} 3579 \\ + 1686 \\ \hline 4000 \\ 1100 \\ 150 \\ 15 \\ \hline 5265 \end{array}$	Compensation	$\begin{array}{r} 3579 \\ + 1686 \\ \hline 5579 \\ - 314 \\ \hline 5265 \end{array}$	$(3579 + 2000)$ $(2000 - 1686)$
----------	--	--------------	--	------------------------------------

Add largest value digits first.

1 $\begin{array}{r} 2752 \\ + 1369 \\ \hline 3000 \\ \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$	3 $\begin{array}{r} 3985 \\ + 1736 \\ \hline \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$	5 $\begin{array}{r} 6496 \\ + 2989 \\ \hline \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$	7 $\begin{array}{r} 5738 \\ + 2865 \\ \hline \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$
2 $\begin{array}{r} 4778 \\ + 2886 \\ \hline \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$	4 $\begin{array}{r} 5867 \\ + 3457 \\ \hline \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$	6 $\begin{array}{r} 4659 \\ + 3698 \\ \hline \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$	8 $\begin{array}{r} 3976 \\ + 3947 \\ \hline \dots\dots \\ \dots\dots \\ \dots\dots \\ \hline \hline \hline \end{array}$

Use the compensation method.

9 $\begin{array}{r} 4329 \\ + 1884 \\ \hline 6329 \\ \dots\dots \\ - \hline \hline \hline \end{array}$	11 $\begin{array}{r} 5638 \\ + 3665 \\ \hline \dots\dots \\ \hline \hline \hline \end{array}$	13 $\begin{array}{r} 3596 \\ + 2872 \\ \hline \dots\dots \\ \hline \hline \hline \end{array}$	15 $\begin{array}{r} 5865 \\ + 1749 \\ \hline \dots\dots \\ \hline \hline \hline \end{array}$
10 $\begin{array}{r} 3453 \\ + 1793 \\ \hline \dots\dots \\ - \hline \hline \hline \end{array}$	12 $\begin{array}{r} 7244 \\ 1939 \\ \hline \dots\dots \\ \hline \hline \hline \end{array}$	14 $\begin{array}{r} 6742 \\ + 2588 \\ \hline \dots\dots \\ \hline \hline \hline \end{array}$	16 $\begin{array}{r} 4274 \\ + 3695 \\ \hline \dots\dots \\ \hline \hline \hline \end{array}$

Homework Sheet 17: Standard Method For Addition

Examples

$$\begin{array}{r} 759 \\ + 438 \\ \hline 1197 \\ 1 \end{array}$$

$$\begin{array}{r} 2483 \\ + 1754 \\ \hline 4237 \\ 11 \end{array}$$

$$\begin{array}{r} 6154 \\ + 5377 \\ \hline 11531 \\ 11 \end{array}$$

Remember to add the carried figure.

Work out

$$\begin{array}{r} 1 \quad 675 \\ + 219 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 1346 \\ + 819 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \quad 5937 \\ + 1765 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \quad 6758 \\ + 3442 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 928 \\ + 475 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 2283 \\ + 597 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \quad 2885 \\ + 2573 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \quad 7527 \\ + 4649 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 594 \\ + 538 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \quad 1759 \\ + 725 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \quad 3653 \\ + 1266 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \quad 8489 \\ + 5584 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 836 \\ + 327 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \quad 3568 \\ + 1266 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \quad 4945 \\ + 1297 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \quad 6762 \\ + 4963 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 1187 \\ + 638 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \quad 2492 \\ + 1738 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \quad 5376 \\ + 2628 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \quad 9674 \\ + 6546 \\ \hline \end{array}$$

Homework Sheet 18: Informal Method For Subtraction

Examples	$\begin{array}{r} 5163 \\ - 1746 \\ \hline \end{array}$		$\begin{array}{r} 5163 \\ - 1746 \\ \hline \end{array}$
Counting up	$\begin{array}{r} 54 \text{ (to make 1800)} \\ 200 \text{ (to make 2000)} \\ \hline 3163 \text{ (to make 5163)} \\ \hline 3417 \end{array}$	Compensation	$\begin{array}{r} 3163 \text{ (5163 - 2000)} \\ 254 \text{ (2000 - 1746)} \\ \hline 3417 \\ \hline 1 \end{array}$

Use counting up.

- 1

$$\begin{array}{r} 3523 \\ - 1769 \\ \hline \end{array}$$

.....31

200

.....

1523

.....

3

$$\begin{array}{r} 5615 \\ - 1587 \\ \hline \end{array}$$

.....

.....

.....

.....

.....

5

$$\begin{array}{r} 6170 \\ - 3898 \\ \hline \end{array}$$

.....

.....

.....

.....

.....

7

$$\begin{array}{r} 7246 \\ - 2979 \\ \hline \end{array}$$

.....

.....

.....

.....

.....

2

$$\begin{array}{r} 4362 \\ - 2876 \\ \hline \end{array}$$

.....

.....

.....

.....

.....

4

$$\begin{array}{r} 2237 \\ - 1939 \\ \hline \end{array}$$

.....

.....

.....

.....

.....

6

$$\begin{array}{r} 4553 \\ - 1457 \\ \hline \end{array}$$

.....

.....

.....

.....

.....

8

$$\begin{array}{r} 5734 \\ - 2845 \\ \hline \end{array}$$

.....

.....

.....

.....

.....

Use compensation.

9

$$\begin{array}{r} 3241 \\ - 1648 \\ \hline \end{array}$$

1241

352

.....

11

$$\begin{array}{r} 4354 \\ - 2725 \\ \hline \end{array}$$

.....

.....

.....

13

$$\begin{array}{r} 7431 \\ - 1674 \\ \hline \end{array}$$

.....

.....

.....

15

$$\begin{array}{r} 9512 \\ - 4583 \\ \hline \end{array}$$

.....

.....

.....

10

$$\begin{array}{r} 7136 \\ - 3384 \\ \hline \end{array}$$

.....

.....

.....

12

$$\begin{array}{r} 6483 \\ - 3891 \\ \hline \end{array}$$

.....

.....

.....

14

$$\begin{array}{r} 5625 \\ - 2766 \\ \hline \end{array}$$

.....

.....

.....

16

$$\begin{array}{r} 8343 \\ - 6758 \\ \hline \end{array}$$

.....

.....

.....

Homework Sheet 19: Standard Method For Subtraction

Examples	$\begin{array}{r} 7 1 \\ 5858 \\ - 1674 \\ \hline 4184 \end{array}$	$\begin{array}{r} 4 1 6 1 \\ 5470 \\ - 1936 \\ \hline 3534 \end{array}$	$\begin{array}{r} 5 12 14 1 \\ 6351 \\ - 2483 \\ \hline 3868 \end{array}$
----------	---	---	---

Work out

$$\begin{array}{r} 1 \quad 3183 \\ - 1147 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \quad 9407 \\ - 4736 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \quad 8520 \\ - 4346 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \quad 9854 \\ - 2678 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 4946 \\ - 1293 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \quad 6091 \\ - 3548 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \quad 6085 \\ - 1627 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \quad 3262 \\ - 2789 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 5715 \\ - 3461 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \quad 6234 \\ - 5763 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \quad 7147 \\ - 4576 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \quad 6608 \\ - 2893 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 8360 \\ - 3127 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \quad 7859 \\ - 2889 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \quad 4931 \\ - 2683 \\ \hline \end{array}$$

$$\begin{array}{r} 19 \quad 8379 \\ - 5385 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 7528 \\ - 3453 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \quad 3672 \\ - 2736 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \quad 5496 \\ - 4237 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \quad 7713 \\ - 6986 \\ \hline \end{array}$$

Homework Sheet 20: Understanding Multiplication

Complete each table.

1

× 10		
4	→	40
0.8	→	
	→	35
	→	2.4
	→	0.7

2

× 7		
5	→	
0.8	→	
	→	210
	→	0.49
	→	6.3

3

× 100		
7	→	
0.3	→	
	→	2500
	→	520
	→	8

Write the missing number in the box.

4 × 9 = 72

9 0.3 × = 1.8

14 × 7 = 0.42

5 3 × = 1.2

10 × 7 = 0.14

15 12 × = 0

6 × 1 = 1.5

11 0.79 × = 7.9

16 × 100 = 57

7 6 × = 0.48

12 × 0.9 = 5.4

17 9 × = 8.1

8 × 0.5 = 50

13 8 × = 640

18 × 5 = 300

Complete each multiplication square.

19

×					
3					15
	56			72	
		20			50
	28		24		
		14		63	

20

×					
	27		18		
		35			70
			48		
	54				60
		20		8	

Homework Sheet 21: Multiplication Facts Revision 1

Complete by writing the missing number in the box.

1 $8 \times 6 = \square$

9 $\square \div 8 = 7$

17 $\square \times 4 = 28$

2 $9 \times 4 = \square$

10 $\square \div 3 = 0.9$

18 $\square \times 7 = 2.1$

3 $8 \times 9 = \square$

11 $\square \div 9 = 6$

19 $\square \times 6 = 54$

4 $7 \times 7 = \square$

12 $\square \div 5 = 0.8$

20 $\square \times 5 = 4.5$

5 $\square \times 8 = 64$

13 $8 \times 7 = \square$

21 $\square \div 9 = 7$

6 $\square \times 5 = 35$

14 $0.5 \times 6 = \square$

22 $\square \div 7 = 0.8$

7 $\square \times 7 = 63$

15 $0.4 \times 9 = \square$

23 $\square \div 8 = 0.5$

8 $\square \times 6 = 4.2$

16 $9 \times 8 = \square$

24 $\square \div 6 = 8$

25 Complete the multiplication square.

$\times$	5	7	3	10	4	8	2	6	9
3									
8									
10									
2									
9									
5									
7									
4									
6									

Homework Sheet 22: Multiplication Facts Revision 2

Complete by writing the missing number in the box.

- 1 $4 \times 8 = \square$
- 2 $7 \times 6 = \square$
- 3 $0.6 \times 9 = \square$
- 4 $8 \times 3 = \square$
- 5 $\square \times 7 = 5.6$
- 6 $\square \times 6 = 36$
- 7 $\square \times 4 = 3.6$
- 8 $\square \times 8 = 56$
- 9 $\square \div 7 = 9$
- 10 $\square \div 9 = 0.8$
- 11 $\square \div 5 = 9$
- 12 $\square \div 8 = 0.6$
- 13 $0.9 \times 6 = \square$
- 14 $6 \times 7 = \square$
- 15 $6 \times 4 = \square$
- 16 $0.3 \times 9 = \square$
- 17 $\square \times 6 = 48$
- 18 $\square \times 10 = 5$
- 19 $\square \times 7 = 3.5$
- 20 $\square \times 9 = 81$
- 21 $\square \div 8 = 0.8$
- 22 $\square \div 7 = 0.7$
- 23 $\square \div 3 = 7$
- 24 $\square \div 9 = 0.7$

25 Complete the multiplication square.

×	4	9	2	6	10	3	8	5	7
5									
7									
3									
4									
10									
2									
6									
9									
8									

Homework Sheet 23: Multiplying/Dividing By 10 or 100

Examples $2.36 \times 10 = 23.6$
 $2.36 \times 100 = 236$
 $3.2 \times 10 = 32$
 $3.2 \times 100 = 320$

$48 \div 10 = 4.8$
 $48 \div 100 = 0.48$
 $5 \div 10 = 0.5$
 $5 \div 100 = 0.05$

Work out

- 1 2.7×10 5 44.5×10 9 $4 \div 10$
 2 3.1×100 6 0.69×100 10 $28 \div 100$
 3 1.38×10 7 $12 \div 10$ 11 $73 \div 10$
 4 1.72×100 8 $7 \div 100$ 12 $6 \div 100$

Complete by writing the missing numbers.

- 13 $3.5 \times \square = 35$ 19 $6 \div \square = 0.6$
 14 $\square \times 100 = 96$ 20 $\square \div 100 = 0.35$
 15 $14 \div \square = 0.14$ 21 $1.88 \times \square = 18.8$
 16 $\square \div 10 = 4.8$ 22 $\square \times 100 = 615$
 17 $5.1 \times \square = 510$ 23 $2 \div \square = 0.02$
 18 $\square \times 10 = 263$ 24 $\square \div 10 = 3.9$

Complete each table.

25

$\times 10$
$0.5 \rightarrow 5$
$0.47 \rightarrow$
$\rightarrow 9.3$
$2.6 \rightarrow$
$\rightarrow 8$
$0.09 \rightarrow$
$\rightarrow 0.1$

26

$\div 10$
$1.8 \rightarrow 0.18$
$\rightarrow 0.55$
$22 \rightarrow$
$\rightarrow 7.9$
$0.3 \rightarrow$
$\rightarrow 0.3$
$21.4 \rightarrow$

27

$\times 100$
$6.8 \rightarrow 680$
$\rightarrow 159$
$0.25 \rightarrow$
$\rightarrow 34$
$0.03 \rightarrow$
$\rightarrow 70$
$4.5 \rightarrow$

Homework Sheet 24: Doubling and Halving

Examples

$$\begin{aligned}\text{Double } 0.59 &= (0.5 \times 2) + (0.09 \times 2) \\ &= 1.0 + 0.18 \\ &= 1.18\end{aligned}$$

$$\begin{aligned}\text{Half of } 15.3 &= (15 \div 2) + (0.3 \div 2) \\ &= 7.5 + 0.15 \\ &= 7.65\end{aligned}$$

Work out

1 54×2 5 6.2×2 9 970×2

2 9.9×2 6 9800×2 10 7.3×2

3 710×2 7 860×2 11 5900×2

4 8700×2 8 7.9×2 12 8.5×2

13 $94 \div 2$ 17 $13\,200 \div 2$ 21 $1740 \div 2$

14 $128 \div 2$ 18 $18.3 \div 2$ 22 $14.1 \div 2$

15 $1160 \div 2$ 19 $1260 \div 2$ 23 $13\,800 \div 2$

16 $16.2 \div 2$ 20 $15.7 \div 2$ 24 $19.5 \div 2$

25 Work out the 16 times-table by doubling the 8 times-table.

EIGHTS	8	16								80
SIXTEENS										

Use halving to complete the second and third problems.

26 $\frac{1}{3}$ of 900 = 27 $\frac{1}{3}$ of 390 = 28 $\frac{1}{3}$ of 21 =

$\frac{1}{6}$ of 900 = $\frac{1}{6}$ of 390 = $\frac{1}{6}$ of 21 =

$\frac{1}{12}$ of 900 = $\frac{1}{12}$ of 390 = $\frac{1}{12}$ of 21 =

Homework Sheet 25: Informal Method For Multiplication

Example	458×37	$\times$	400	50	8	
	30		12 000	1500	240	13 740
	7		2800	350	56	3 206
						$458 \times 37 = 16\,946$

Work out

1 $\times$ 50 3

10	500	30	530
6			

.....

$53 \times 16 =$

7 $\times$ 100 30 7

40	4000	1200	280	5480
8				

.....

$137 \times 48 =$

2 $\times$ 20 7

20			
9			

.....

$27 \times 29 =$

8 $\times$ 300 60 4

50				
4				

.....

$364 \times 54 =$

3 $\times$ 30 6

20			
5			

.....

$36 \times 25 =$

9 $\times$ 400 20 9

20				
6				

.....

$429 \times 26 =$

4 $\times$ 90 2

50			
3			

.....

$92 \times 53 =$

10 $\times$ 300 50 8

10				
9				

.....

$358 \times 19 =$

5 $\times$ 40 8

30			
7			

.....

$48 \times 37 =$

11 $\times$ 200 90 4

60				
8				

.....

$294 \times 68 =$

6 $\times$ 80 5

40			
2			

.....

$85 \times 42 =$

12 $\times$ 500 70 6

20				
7				

.....

$576 \times 27 =$