

Sheet 1 PLACE VALUE OF DIGITS**1**

Write down the value of the underlined digit.

① 2 7 9 6 5 0 3

⑨ 4 2 8 5 3 7 8

② 1 0 4 2 9 1 6

⑩ 9 1 8 0 4 4

③ 8 3 3 1 3 0

⑪ 1 7 6 1 9 6 1

④ 5 1 2 5 8 9 9

⑫ 2 5 2 4 5 0 6

⑤ 7 9 0 1 2 8 7

⑬ 6 1 7 0 4 1 2

⑥ 6 8 6 7 5 1

⑭ 5 9 3 5 1 8 0

⑦ 3 4 5 7 4 2 5

⑮ 4 5 2 4 3 9

⑧ 8 3 1 9 6 6 2

⑯ 9 6 8 7 8 5 5

Work out.

⑰ 2 0 3 5 9 1 8 + 8 0 0 0

⑳ 6 5 0 4 1 7 5 - 7 0 0 0

⑱ 7 1 0 7 6 4 - 5 0 0

㉑ 1 8 2 9 + 1 0 0 0 0 0 0

㉒ 4 0 + 3 0 0 0 0 0

㉒ 9 0 0 0 - 6 0

㉓ 1 0 0 0 0 0 0 - 2 0 0 0 0

㉓ 1 9 3 6 2 8 3 + 9 0 0 0 0

㉔ 4 9 8 3 6 3 2 + 4 0 0

㉔ 7 6 5 2 5 4 7 - 8 0 0 0 0 0

Write these numbers in ascending order.

⑳ 8 2 3 8 3 3 8 3 3 3 2 2 8 3 2 2 3 8 8 2 3 3 8 8

㉑ 1 9 7 7 1 1 1 7 9 9 7 1 1 9 9 1 9 7 1 9 7 1 9 9

㉒ 4 4 0 0 0 6 6 4 0 6 4 0 4 6 4 0 0 6 6 4 6 4 0 6 0 6 4 0

㉓ 2 5 5 2 5 7 2 2 7 2 5 2 5 2 2 5 2 7 7 2 7 2 7 2 2 5 7 7

Sheet 2 ROUNDING**2**

Round to the nearest: 1000 100 100 000

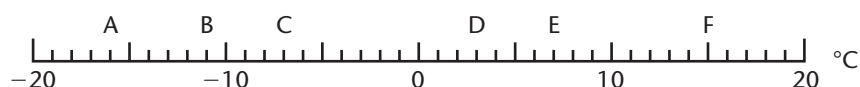
- | | | | | |
|---|-----------|-------|-------|-------|
| 1 | 562 318 | ..... | ..... | ..... |
| 2 | 7 235 094 | ..... | ..... | ..... |
| 3 | 81 951 | ..... | ..... | ..... |
| 4 | 9 654 247 | ..... | ..... | ..... |
| 5 | 2 109 883 | ..... | ..... | ..... |
| 6 | 4 870 460 | ..... | ..... | ..... |

Round to the nearest: 10 1 000 000 1000

- | | | | | |
|----|-----------|-------|-------|-------|
| 7 | 5 840 738 | ..... | ..... | ..... |
| 8 | 2 462 903 | ..... | ..... | ..... |
| 9 | 617 172 | ..... | ..... | ..... |
| 10 | 1 259 645 | ..... | ..... | ..... |
| 11 | 6 506 381 | ..... | ..... | ..... |
| 12 | 8 941 526 | ..... | ..... | ..... |

Round to the nearest: $\frac{1}{10}$ 1 $\frac{1}{100}$

- | | | | | |
|----|---------|-------|-------|-------|
| 13 | 4.062 | ..... | ..... | ..... |
| 14 | 13.785 | ..... | ..... | ..... |
| 15 | 2.827 | ..... | ..... | ..... |
| 16 | 298.491 | ..... | ..... | ..... |

Sheet 3 NEGATIVE NUMBERS**3**

Look at the scale. Write the temperature shown by each letter.

- 1 E 3 F 5 D
 2 C 4 A 6 B

What is the difference in temperature between:

- 7 C and D 10 B and F 13 A and B
 8 B and E 11 A and D 14 B and C
 9 A and C 12 C and E 15 A and F

What would the temperature be if it was:

- 16 at D and fell 15° $^{\circ}\text{C}$ 20 at E and fell 20° $^{\circ}\text{C}$
 17 at A and rose 13° $^{\circ}\text{C}$ 21 at A and rose 24° $^{\circ}\text{C}$
 18 at F and fell 20° $^{\circ}\text{C}$ 22 at C and fell 12° $^{\circ}\text{C}$
 19 at B and rose 12° $^{\circ}\text{C}$ 23 at B and rose 7° $^{\circ}\text{C}$

Complete the tables showing changes in temperature.

24

OLD	CHANGE	NEW
2°	-8°	
-7°	$+12^{\circ}$	
-3°	-15°	
19°	-23°	
-23°	$+7^{\circ}$	
-5°	-9°	

25

OLD	CHANGE	NEW
	$+6^{\circ}$	3°
	$+4^{\circ}$	-6°
	-21°	-13°
	$+5^{\circ}$	4°
	$+8^{\circ}$	-7°
	-17°	-1°

Sheet 4 ROMAN NUMERALS**4**

Write in Arabic numbers.

1 CCXV

2 DCXLIII

3 CLXVIII

4 CDXXIX

5 DCCLXXX

6 CCCLVII

7 DXCII

8 DCCCXXXIV

9 CMI

10 CDLXXVI

11 CCCXXVII

12 DCCCXC

13 DCLXXV

14 CMLII

15 CVIII

16 DXIV

17 DCCXLI

18 CDLXXXVI

19 CCLXIII

20 DCXXXIX

Write in Roman numerals.

21 542

22 226

23 389

24 603

25 467

26 730

27 154

28 295

29 871

30 918

31 651

32 937

33 284

34 793

35 520

36 816

37 179

38 405

39 948

40 362

Sheet 5 WRITTEN METHOD FOR +/−

Examples

$$\begin{array}{r}
 5 \ 8 \ 3 \ 7 \ 4 \\
 + 1 \ 9 \ 5 \ 6 \ 7 \\
 \hline
 7 \ 7 \ 9 \ 4 \ 1 \\
 \hline
 1 \quad \quad 1 \quad 1
 \end{array}$$

$$\begin{array}{r}
 \overset{6}{7} \overset{11}{2} \overset{1}{5} \overset{7}{8} \overset{1}{0} \\
 - 3 \ 4 \ 9 \ 1 \ 7 \\
 \hline
 3 \ 7 \ 6 \ 6 \ 3
 \end{array}$$

Work out.

$$\begin{array}{r}
 \textcircled{1} \quad 4 \ 6 \ 4 \ 5 \ 8 \\
 + 4 \ 5 \ 7 \ 9 \ 8 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{7} \quad 6 \ 7 \ 3 \ 9 \ 3 \\
 + 1 \ 9 \ 6 \ 1 \ 9 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{13} \quad 3 \ 5 \ 7 \ 6 \ 3 \\
 + 2 \ 8 \ 5 \ 7 \ 5 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{2} \quad 5 \ 3 \ 9 \ 7 \ 4 \\
 + 2 \ 4 \ 6 \ 3 \ 9 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{8} \quad 2 \ 4 \ 5 \ 8 \ 9 \\
 + 1 \ 6 \ 4 \ 7 \ 4 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{14} \quad 7 \ 6 \ 1 \ 5 \ 9 \\
 + 2 \ 3 \ 8 \ 6 \ 5 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{3} \quad 3 \ 8 \ 6 \ 2 \ 7 \\
 + 1 \ 1 \ 8 \ 7 \ 6 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{9} \quad 4 \ 1 \ 8 \ 4 \ 6 \\
 + 3 \ 3 \ 9 \ 8 \ 4 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{15} \quad 5 \ 7 \ 9 \ 3 \ 6 \\
 + 1 \ 8 \ 7 \ 8 \ 6 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{4} \quad 3 \ 5 \ 1 \ 4 \ 2 \\
 - 2 \ 6 \ 7 \ 9 \ 3 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{10} \quad 8 \ 2 \ 4 \ 1 \ 0 \\
 - 5 \ 4 \ 7 \ 5 \ 2 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{16} \quad 7 \ 5 \ 2 \ 0 \ 6 \\
 - 2 \ 5 \ 5 \ 1 \ 4 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{5} \quad 6 \ 4 \ 2 \ 3 \ 5 \\
 - 2 \ 3 \ 6 \ 8 \ 9 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{11} \quad 5 \ 1 \ 3 \ 2 \ 4 \\
 - 3 \ 9 \ 6 \ 7 \ 5 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{17} \quad 9 \ 9 \ 1 \ 3 \ 2 \\
 - 1 \ 7 \ 4 \ 3 \ 9 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{6} \quad 9 \ 3 \ 5 \ 7 \ 1 \\
 - 3 \ 4 \ 8 \ 2 \ 3 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{12} \quad 4 \ 0 \ 8 \ 5 \ 3 \\
 - 1 \ 6 \ 1 \ 7 \ 9 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 \textcircled{18} \quad 6 \ 2 \ 6 \ 4 \ 0 \\
 - 5 \ 6 \ 1 \ 8 \ 3 \\
 \hline
 \hline
 \end{array}$$

Sheet 6 SHORT MULTIPLICATION

6

*Examples*Work from the
right and carry.

$$\begin{array}{r} 4739 \\ \times \quad 8 \\ \hline 37912 \\ \text{5 3 7} \end{array}$$

$$\begin{array}{r} 36.18 \\ \times \quad 6 \\ \hline 217.08 \\ \text{3 1 4} \end{array}$$

Align the
decimal points.

Work out.

$$\begin{array}{r} 1538 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 1375 \\ \times \quad 12 \\ \hline \end{array}$$

$$\begin{array}{r} 29.56 \\ \times \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5496 \\ \times \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4962 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 18.74 \\ \times \quad 11 \\ \hline \end{array}$$

$$\begin{array}{r} 3725 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 1418 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 418.5 \\ \times \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1682 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3726 \\ \times \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 350.7 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2359 \\ \times \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} 28.37 \\ \times \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} 52.69 \\ \times \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 3874 \\ \times \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 73.95 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 63.92 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2936 \\ \times \quad 11 \\ \hline \end{array}$$

$$\begin{array}{r} 657.8 \\ \times \quad 2 \\ \hline \end{array}$$

$$\begin{array}{r} 174.8 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7048 \\ \times \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 542.9 \\ \times \quad 12 \\ \hline \end{array}$$

$$\begin{array}{r} 381.6 \\ \times \quad 12 \\ \hline \end{array}$$

Sheet 7 LONG MULTIPLICATION

7

Examples

$$\begin{array}{r}
 \begin{array}{cccc} & 4 & & 4 \\ & 3 & 8 & 1 & 9 \\ \times & & & 2 & 5 \\ \hline
 1 & 9 & 0 & 9 & 5 & \text{(3819} \times 5\text{)} \\
 7 & 1 & 6 & 3 & 8 & 0 & \text{(3819} \times 20\text{)} \\
 \hline
 9 & 5 & 4 & 7 & 5 \\
 1 & & 1 & & &
 \end{array}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{ccccccc} & 5 & 1 & & 3 & & \\ & 4 & 7 & \cdot & 1 & 5 & \\ \times & & & & 3 & 7 & \\ \hline
 3 & 3 & 0 & \cdot & 0 & 5 & \\
 1 & 4 & 1 & 4 & \cdot & 5 & 0 & \\
 \hline
 1 & 7 & 4 & 4 & \cdot & 5 & 5 &
 \end{array}
 \end{array}$$

Work out.

1

$$\begin{array}{r}
 \begin{array}{cccc} & 1 & 4 & 7 & 3 \\ \times & & & 1 & 5 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

6

$$\begin{array}{r}
 \begin{array}{cccc} & 1 & 0 & 8 & 6 \\ \times & & & 5 & 2 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

11

$$\begin{array}{r}
 \begin{array}{ccccccc} & 5 & 3 & 4 & \cdot & 8 & \\ \times & & & & 1 & 7 & \\ \hline
 & & & & & & \\ & & & & & & \\ & & & & & &
 \end{array}
 \end{array}$$

2

$$\begin{array}{r}
 \begin{array}{cccc} & 2 & 9 & 1 & 6 \\ \times & & & 2 & 7 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

7

$$\begin{array}{r}
 \begin{array}{cccc} & 4 & 3 & 7 & 9 \\ \times & & & 2 & 9 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

12

$$\begin{array}{r}
 \begin{array}{ccccccc} & 1 & 6 & \cdot & 9 & 3 & \\ \times & & & & 3 & 8 & \\ \hline
 & & & & & & \\ & & & & & & \\ & & & & & &
 \end{array}
 \end{array}$$

3

$$\begin{array}{r}
 \begin{array}{cccc} & 1 & 3 & 8 & 5 \\ \times & & & 3 & 4 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

8

$$\begin{array}{r}
 \begin{array}{cccc} & 2 & 8 & 6 & 5 \\ \times & & & 3 & 5 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

13

$$\begin{array}{r}
 \begin{array}{ccccccc} & 2 & 8 & 0 & \cdot & 7 & \\ \times & & & & 4 & 3 & \\ \hline
 & & & & & & \\ & & & & & & \\ & & & & & &
 \end{array}
 \end{array}$$

4

$$\begin{array}{r}
 \begin{array}{cccc} & 3 & 5 & 2 & 9 \\ \times & & & 4 & 6 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

9

$$\begin{array}{r}
 \begin{array}{cccc} & 7 & 4 & 8 & 1 \\ \times & & & 1 & 3 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

14

$$\begin{array}{r}
 \begin{array}{ccccccc} & 7 & 1 & \cdot & 4 & 8 & \\ \times & & & & 2 & 6 & \\ \hline
 & & & & & & \\ & & & & & & \\ & & & & & &
 \end{array}
 \end{array}$$

5

$$\begin{array}{r}
 \begin{array}{cccc} & 5 & 7 & 4 & 2 \\ \times & & & 1 & 8 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

10

$$\begin{array}{r}
 \begin{array}{cccc} & 4 & 9 & 2 & 7 \\ \times & & & 2 & 4 \\ \hline
 & & & & \\ & & & & \\ & & & &
 \end{array}
 \end{array}$$

15

$$\begin{array}{r}
 \begin{array}{ccccccc} & 3 & 5 & 7 & \cdot & 6 & \\ \times & & & & 5 & 9 & \\ \hline
 & & & & & & \\ & & & & & & \\ & & & & & &
 \end{array}
 \end{array}$$

Sheet 8 SHORT/LONG MULTIPLICATION

8

Work out.

$$\begin{array}{r} \textcircled{1} \quad \quad 1 \ 3 \ 9 \ 4 \\ \times \quad \quad \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad \quad 2 \ 5 \ 8 \ 3 \\ \times \quad \quad \quad 1 \ 1 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{9} \quad \quad 6 \ 8 \ 7 \ 4 \\ \times \quad \quad \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad \quad 3 \ 7 \ 6 \ 9 \\ \times \quad \quad \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad \quad 4 \ 6 \ 5 \ 7 \\ \times \quad \quad \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{10} \quad \quad 1 \ 9 \ 6 \ 3 \\ \times \quad \quad \quad 1 \ 2 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad \quad 2 \ 8 \ 4 \ 5 \\ \times \quad \quad \quad 1 \ 2 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{7} \quad \quad 8 \ 3 \ 9 \ 6 \\ \times \quad \quad \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{11} \quad \quad 4 \ 6 \ 2 \ 9 \\ \times \quad \quad \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad \quad 5 \ 0 \ 3 \ 7 \\ \times \quad \quad \quad 9 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{8} \quad \quad 9 \ 7 \ 3 \ 0 \\ \times \quad \quad \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{12} \quad \quad 2 \ 7 \ 5 \ 8 \\ \times \quad \quad \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{13} \quad \quad 3 \ 1 \ 9 \ 6 \\ \times \quad \quad \quad 1 \ 4 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{15} \quad \quad 5 \ 0 \ 8 \ 3 \\ \times \quad \quad \quad 2 \ 3 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{17} \quad \quad 1 \ 5 \ 3 \ 9 \\ \times \quad \quad \quad 3 \ 9 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{14} \quad \quad 2 \ 7 \ 5 \ 8 \\ \times \quad \quad \quad 2 \ 5 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{16} \quad \quad 3 \ 6 \ 7 \ 2 \\ \times \quad \quad \quad 4 \ 7 \\ \hline \end{array}$$

$$\begin{array}{r} \textcircled{18} \quad \quad 2 \ 8 \ 4 \ 5 \\ \times \quad \quad \quad 5 \ 4 \\ \hline \end{array}$$

Sheet 9 SHORT DIVISION

Examples

$6132 \div 7$

$$\begin{array}{r} 876 \\ 7 \overline{)6153} 2 \end{array}$$

$53.8 \div 4$

$$\begin{array}{r} 13.45 \\ 4 \overline{)53.8} 20 \end{array}$$

Work out.

1

$5 \overline{)2185}$

9

$4 \overline{)37.44}$

17

$2 \overline{)52.9}$

2

$8 \overline{)4232}$

10

$12 \overline{)190.8}$

18

$5 \overline{)30.7}$

3

$3 \overline{)2595}$

11

$8 \overline{)30.08}$

19

$4 \overline{)289}$

4

$12 \overline{)5676}$

12

$3 \overline{)278.1}$

20

$8 \overline{)390}$

5

$9 \overline{)2646}$

13

$7 \overline{)12.88}$

21

$6 \overline{)338.1}$

6

$7 \overline{)4564}$

14

$6 \overline{)439.2}$

22

$4 \overline{)678}$

7

$11 \overline{)4246}$

15

$9 \overline{)52.74}$

23

$5 \overline{)74.8}$

8

$6 \overline{)5688}$

16

$11 \overline{)214.5}$

24

$8 \overline{)606}$

Sheet 10 LONG DIVISION

10

Work out.

1
$$\begin{array}{r} 253 \\ 14 \overline{) 3542} \end{array}$$

_____ (200 × 14)

_____ (50 × 14)

_____ (3 × 14)

5
$$\begin{array}{r} 197544 \end{array}$$

9
$$\begin{array}{r} 1557.3 \end{array}$$

2
$$\begin{array}{r} 284928 \end{array}$$

_____ (..... × 28)

_____ (..... × 28)

_____ (..... × 28)

6
$$\begin{array}{r} 237544 \end{array}$$

10
$$\begin{array}{r} 2698.54 \end{array}$$

3
$$\begin{array}{r} 358725 \end{array}$$

_____ (..... × 35)

_____ (..... × 35)

_____ (..... × 35)

7
$$\begin{array}{r} 386232 \end{array}$$

11
$$\begin{array}{r} 32620.8 \end{array}$$

4
$$\begin{array}{r} 478695 \end{array}$$

_____ (..... × 47)

_____ (..... × 47)

_____ (..... × 47)

8
$$\begin{array}{r} 548107 \end{array}$$

12
$$\begin{array}{r} 4358.48 \end{array}$$

Sheet 11 SHORT/LONG DIVISION

11

Work out.

1

$$9 \overline{) 2556}$$

5

$$5 \overline{) 4758}$$

9

$$11 \overline{) 6006}$$

2

$$4 \overline{) 2958}$$

6

$$8 \overline{) 3740}$$

10

$$9 \overline{) 677.7}$$

3

$$7 \overline{) 3836}$$

7

$$3 \overline{) 1887}$$

11

$$7 \overline{) 25.55}$$

4

$$12 \overline{) 2074}$$

8

$$6 \overline{) 5359}$$

12

$$12 \overline{) 766.8}$$

13

$$13 \overline{) 5564}$$

15

$$29 \overline{) 5325}$$

17

$$36 \overline{) 95.4}$$

14

$$42 \overline{) 6678}$$

16

$$17 \overline{) 4670}$$

18

$$24 \overline{) 759.6}$$

Sheet 12 ROUNDING UP OR DOWN**12***Examples*

75 eggs
boxes of 6
13 boxes needed
(round up)

75 eggs
boxes of 6
12 boxes filled
(round down)

Show your working. Write the answer in the box.

- 1 Salt pots hold 80g each.

pots needed for 1 kg of salt.

- 2 180 days is complete weeks.

- 3 6 rolls per packet.

packets from 200 rolls.

- 4 A coach costs £400 to hire.

£9 tickets need to be sold to cover the cost.

- 5 12 pins in each pin cushion.

cushions needed for 200 pins.

- 6 8 plates in a set.

sets from 150 plates.

- 7 length of a 35 m pool in order to swim 2 km

- 9 18 chairs in each row.
 rows needed for 280 people.

- 8 56 pills in each packet.

packets from 3000 pills.

- 10 15 ml doses of medicine.

doses from 400 ml.

Sheet 13 MULTIPLICATION FACTS 1**13**

Write the missing number in the box.

1 $7 \times 80 = \boxed{}$

17 $500 \times 9 = \boxed{}$

33 $20 \times 10 = \boxed{}$

2 $90 \times 50 = \boxed{}$

18 $90 \times 3 = \boxed{}$

34 $40 \times 700 = \boxed{}$

3 $2 \times 900 = \boxed{}$

19 $400 \times 120 = \boxed{}$

35 $8 \times 80 = \boxed{}$

4 $40 \times 600 = \boxed{}$

20 $60 \times 80 = \boxed{}$

36 $9 \times 400 = \boxed{}$

5 $1800 \div 30 = \boxed{}$

21 $14\,000 \div 20 = \boxed{}$

37 $1080 \div 90 = \boxed{}$

6 $9600 \div 1200 = \boxed{}$

22 $3500 \div 7 = \boxed{}$

38 $5400 \div 60 = \boxed{}$

7 $200 \div 40 = \boxed{}$

23 $3300 \div 110 = \boxed{}$

39 $1200 \div 200 = \boxed{}$

8 $21\,000 \div 700 = \boxed{}$

24 $480 \div 6 = \boxed{}$

40 $84\,000 \div 1200 = \boxed{}$

9 $\boxed{} \times 200 = 2400$

25 $\boxed{} \times 80 = 960$

41 $\boxed{} \times 500 = 4000$

10 $\boxed{} \times 80 = 400$

26 $\boxed{} \times 40 = 44\,000$

42 $\boxed{} \times 70 = 770$

11 $\boxed{} \times 900 = 81\,000$

27 $\boxed{} \times 5 = 300$

43 $\boxed{} \times 800 = 32\,000$

12 $\boxed{} \times 110 = 6600$

28 $\boxed{} \times 9 = 6300$

44 $\boxed{} \times 30 = 2400$

13 $\boxed{} \div 60 = 12$

29 $\boxed{} \div 70 = 900$

45 $\boxed{} \div 600 = 70$

14 $\boxed{} \div 50 = 70$

30 $\boxed{} \div 12 = 300$

46 $\boxed{} \div 110 = 110$

15 $\boxed{} \div 700 = 80$

31 $\boxed{} \div 30 = 110$

47 $\boxed{} \div 120 = 9$

16 $\boxed{} \div 1200 = 11$

32 $\boxed{} \div 6 = 50$

48 $\boxed{} \div 900 = 6$

Sheet 14 MULTIPLICATION FACTS 2

14

Write the missing number in the box.

1 $8 \times 0.6 = \square$

17 $4 \times 0.9 = \square$

33 $8 \times 0.5 = \square$

2 $6 \times 0.4 = \square$

18 $5 \times 1.1 = \square$

34 $6 \times 0.8 = \square$

3 $3 \times 0.9 = \square$

19 $9 \times 0.7 = \square$

35 $11 \times 1.2 = \square$

4 $7 \times 1.1 = \square$

20 $12 \times 1.2 = \square$

36 $12 \times 0.3 = \square$

5 $8.4 \div 7 = \square$

21 $2.5 \div 5 = \square$

37 $6.3 \div 9 = \square$

6 $2.0 \div 5 = \square$

22 $2.4 \div 8 = \square$

38 $2.2 \div 2 = \square$

7 $6.0 \div 12 = \square$

23 $4.2 \div 6 = \square$

39 $3.5 \div 7 = \square$

8 $8.8 \div 8 = \square$

24 $3.2 \div 4 = \square$

40 $1.8 \div 6 = \square$

9 $\square \times 2 = 1.8$

25 $\square \times 9 = 9.9$

41 $\square \times 4 = 3.6$

10 $\square \times 6 = 3.6$

26 $\square \times 7 = 2.8$

42 $\square \times 8 = 6.4$

11 $\square \times 9 = 10.8$

27 $\square \times 2 = 1.6$

43 $\square \times 5 = 6$

12 $\square \times 3 = 2.4$

28 $\square \times 8 = 9.6$

44 $\square \times 12 = 9.6$

13 $\square \div 7 = 0.6$

29 $\square \div 3 = 0.5$

45 $\square \div 9 = 0.5$

14 $\square \div 12 = 0.7$

30 $\square \div 6 = 0.9$

46 $\square \div 7 = 0.7$

15 $\square \div 4 = 0.4$

31 $\square \div 11 = 1.1$

47 $\square \div 11 = 0.4$

16 $\square \div 8 = 0.9$

32 $\square \div 12 = 0.2$

48 $\square \div 6 = 1.2$

Sheet 15 MENTAL CALCULATIONS**15**

Write the answer only.

1 $549\,163 + 4050$

17 $(120 + 180) \times 7$

2 $1\,953\,748 + 90\,200$

18 $(540 \div 9) + 48$

3 $280\,535 + 300\,080$

19 $(12.5 - 7) \div 11$

4 $2\,414\,679 + 7006$

20 $(3.7 \times 2) - 4$

5 $5\,146\,302 - 60\,070$

21 $149 - (300 \div 60)$

6 $730\,281 - 504\,000$

22 $300 \div (39 + 36)$

7 $1\,295\,157 - 9100$

23 $10 \times (10 - 10)$

8 $527\,896 - 30\,008$

24 $9.5 + (0.15 \times 100)$

9 $386\,413 + 59\,000$

25 $(17 + 23) \times (170 - 90)$

10 $719\,564 + 200\,500$

26 $(0.3 \times 19) \div (5.9 + 4.1)$

11 $204\,759 + 8600$

27 $(10 - 5.8) \times (420 \div 70)$

12 $1\,638\,367 + 70\,090$

28 $(640 \div 8) + (4 \times 7)$

13 $973\,920 - 300\,007$

29 $(88 + 44) \div (60 - 49)$

14 $431\,575 - 60\,600$

30 $(0.02 \times 50) - (0.2 \times 5)$

15 $2\,102\,634 - 5009$

31 $(165 + 75) \div (150 \div 25)$

16 $1\,649\,518 - 900\,040$

32 $(10.8 \div 12) \times (10.8 + 1.2)$

Sheet 16 MULTIPLES, COMMON FACTORS, PRIME NUMBERS 16

Write down two numbers that are common multiples of:

- 1 2 and 9 3 4 and 5 5 5 and 8
 2 3 and 7 4 3 and 11 6 4 and 13

Write down the lowest common multiple of:

- 7 5 and 9 9 2, 3 and 7 11 2, 4 and 9
 8 4 and 10 10 3, 4 and 5 12 2, 3 and 11

Write down the common factors. Circle the highest common factor.

- 13 9, 15 15 36, 48 17 28, 42
 14 18, 27 16 50, 75 18 36, 54

Write down all the prime numbers between:

- 19 30 and 50
 20 70 and 100

- 21 Circle the three numbers which are composite numbers:

111 113 131 133 313 333

Write down all the prime factors of:

- 22 28 24 78 26 100
 23 45 25 32 27 54

Sheet 17 COMBINED OPERATIONS**17****ORDER OF OPERATIONS**

1. Deal with brackets
2. Divide and multiply
3. Add and subtract

Examples $50 - 4 \times (19 - 7)$

$50 - 4 \times 12$

$50 - 48$

2

Work out. Show your working as in the example.

1 $(25 + 35) \div (5 + 7)$

.....

.....

.....

4 $100 - (8 + 7) \times 5$

.....

.....

.....

7 $72 \div (24 - 6) + 16$

.....

.....

.....

2 $(25 + 35) \div 5 + 7$

.....

.....

.....

5 $(35 - 11) \times 4 + 9$

.....

.....

.....

8 $0.8 \times 5 + 20 \div 4$

.....

.....

.....

3 $25 + 35 \div 5 + 7$

.....

.....

.....

6 $(19 + 15) \times (10 - 3)$

.....

.....

.....

9 $7 + 14 \div (14 - 7)$

.....

.....

.....

Put the brackets in the right place to make the calculations correct.

10 $2 \times 3 + 4 = 14$

14 $9 \times 5 - 2 = 27$

18 $20 - 15 \div 5 = 1$

11 $72 \div 12 \times 3 = 18$

15 $20 \div 5 - 1 = 3$

19 $2 - 0.5 \times 3 = 0.5$

12 $5 \times 7 - 3 = 20$

16 $4 + 8 \times 2 = 24$

20 $12 + 8 \div 4 = 14$

13 $16 + 8 \div 2 = 12$

17 $90 \div 10 + 5 = 6$

21 $4 \times 6 + 2 = 26$

Sheet 18 MULTI-STEP WORD PROBLEMS

18

Show your working. Write the answers in the box.

- 1 52 136 women live in a town.

There are 3574 fewer men than women.

adults live in the town.

$$\begin{array}{r} 52136 \\ - 3574 \\ \hline \end{array}$$

$$\begin{array}{r} 52136 \\ + \\ \hline \end{array}$$

- 2 1 litre of champagne fills 8 glasses.

litres needed to fill 50 glasses.

- 3 3 teas and 2 cakes cost £5.95.

Cakes cost 95p each.

Teas cost £ each.

- 4 A rectangular garden is 13 m wide.

Its perimeter is 76 m.

It is m long.

- 5 635 eggs are laid.

boxes of 12 are packed.

59 eggs are left.

- 6 60 kg of potatoes in one sack.

150 sacks on each lorry.

kg of potatoes on three lorries.

- 7 Two thirds of a 534 km journey is left.

A further 189 km is completed.

km is left.

- 8 Adult train tickets cost £8.75 each.

2 adult and 5 child tickets cost £52.25.

Child tickets cost £ .

Sheet 19 EQUIVALENT FRACTIONS

19

A fraction can be changed into an equivalent fraction by:

Cancelling using
common factors $\frac{10}{12} \begin{smallmatrix} (\div 2) \\ (\div 2) \end{smallmatrix} \frac{5}{6}$

Multiplying using
common multiples $\frac{2}{5} \begin{smallmatrix} (\times 20) \\ (\times 20) \end{smallmatrix} \frac{40}{100}$

Complete these equivalent fractions.

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

5 $\frac{2}{3} = \frac{6}{\square}$

9 $\frac{3}{4} = \frac{\square}{8}$

13 $\frac{5}{6} = \frac{10}{\square}$

2 $\frac{4}{5} = \frac{\square}{10}$

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

10 $\frac{2}{5} = \frac{\square}{100}$

14 $\frac{1}{4} = \frac{4}{\square}$

3 $\frac{1}{4} = \frac{\square}{100}$

7 $\frac{1}{2} = \frac{2}{\square}$

11 $\frac{1}{3} = \frac{\square}{12}$

15 $\frac{5}{8} = \frac{10}{\square}$

4 $\frac{7}{10} = \frac{\square}{20}$

8 $\frac{3}{10} = \frac{30}{\square}$

12 $\frac{1}{2} = \frac{\square}{100}$

16 $\frac{11}{20} = \frac{55}{\square}$

Simplify by cancelling.

17 $\frac{10}{15} \frac{2}{3}$

21 $\frac{5}{10}$

25 $\frac{15}{10}$

29 $\frac{15}{18}$

18 $\frac{90}{100}$

22 $\frac{2}{12}$

26 $\frac{2}{8}$

30 $\frac{50}{100}$

19 $\frac{4}{20}$

23 $\frac{25}{40}$

27 $\frac{6}{10}$

31 $\frac{100}{100}$

20 $\frac{75}{100}$

24 $\frac{6}{9}$

28 $\frac{8}{12}$

32 $\frac{15}{20}$

Sheet 20 COMPARING/ORDERING FRACTIONS**20**

Arrange $\frac{3}{2}$, $\frac{7}{6}$, $\frac{5}{4}$ in ascending order.

$$\frac{3}{2} = \frac{18}{12} \quad \frac{7}{6} = \frac{14}{12} \quad \frac{5}{4} = \frac{15}{12}$$

The correct order is $\frac{7}{6}$, $\frac{5}{4}$, $\frac{3}{2}$

Write >, < or = each box.

1 $\frac{1}{2} \square \frac{5}{8}$

5 $\frac{2}{3} \square \frac{3}{4}$

9 $\frac{1}{4} \square \frac{2}{10}$

13 $\frac{7}{4} \square \frac{175}{100}$

2 $\frac{2}{5} \square \frac{4}{10}$

6 $\frac{1}{8} \square \frac{1}{7}$

10 $\frac{2}{3} \square \frac{3}{5}$

14 $\frac{12}{5} \square \frac{17}{7}$

3 $\frac{7}{9} \square \frac{2}{3}$

7 $\frac{5}{9} \square \frac{1}{2}$

11 $\frac{9}{12} \square \frac{6}{8}$

15 $\frac{13}{10} \square \frac{4}{3}$

4 $\frac{69}{100} \square \frac{4}{5}$

8 $\frac{4}{12} \square \frac{1}{3}$

12 $\frac{4}{9} \square \frac{5}{12}$

16 $\frac{9}{6} \square \frac{8}{5}$

Arrange in ascending order.

17 $\frac{2}{3}, \frac{3}{5}, \frac{13}{20}, \frac{5}{8}$

.....

19 $\frac{11}{9}, \frac{15}{12}, \frac{4}{3}, \frac{7}{6}$

.....

18 $\frac{5}{12}, \frac{1}{2}, \frac{4}{10}, \frac{3}{8}$

.....

20 $\frac{3}{2}, \frac{8}{6}, \frac{5}{4}, \frac{7}{5}$

.....

Find the number which is halfway between each pair of fractions.

21 $\frac{1}{2}$ and $\frac{3}{4}$

23 $\frac{2}{3}$ and 1

25 $\frac{4}{5}$ and $\frac{8}{9}$

22 $\frac{3}{10}$ and $\frac{4}{10}$

24 $\frac{1}{4}$ and $\frac{1}{6}$

26 $\frac{4}{7}$ and $\frac{2}{3}$

SHEET 21 ADDITION/SUBTRACTION OF FRACTIONS 21

Fill in the boxes to work out.

$$\textcircled{1} \quad \frac{3}{4} + \frac{5}{8} = \frac{\square}{8} + \frac{5}{8} = \frac{\square}{8} = 1\frac{\square}{8}$$

$$\textcircled{5} \quad \frac{2}{3} + \frac{1}{4} = \frac{\square}{12} + \frac{\square}{12} = \frac{\square}{12}$$

$$\textcircled{2} \quad \frac{7}{12} + \frac{2}{3} = \frac{7}{12} + \frac{\square}{12} = \frac{\square}{12} = 1\frac{\square}{12}$$

$$\textcircled{6} \quad \frac{1}{2} + \frac{4}{5} = \frac{\square}{10} + \frac{\square}{10} = 1\frac{\square}{10}$$

$$\textcircled{3} \quad \frac{5}{6} - \frac{1}{2} = \frac{5}{6} - \frac{\square}{6} = \frac{\square}{6}$$

$$\textcircled{7} \quad \frac{7}{8} - \frac{3}{10} = \frac{\square}{40} - \frac{\square}{40} = \frac{\square}{40}$$

$$\textcircled{4} \quad \frac{4}{5} - \frac{3}{10} = \frac{\square}{10} - \frac{3}{10} = \frac{\square}{10}$$

$$\textcircled{8} \quad \frac{3}{5} - \frac{1}{3} = \frac{\square}{15} - \frac{\square}{15} = \frac{\square}{15}$$

$$\textcircled{9} \quad 4\frac{1}{2} + 2\frac{9}{10}$$

$$\textcircled{11} \quad 6\frac{7}{12} - 2\frac{1}{4}$$

$$\textcircled{13} \quad 2\frac{3}{5} + 1\frac{1}{6}$$

$$\textcircled{15} \quad 3\frac{1}{2} - 1\frac{2}{7}$$

$$6\frac{\square}{10} + \frac{9}{10}$$

$$4\frac{7 - \square}{12}$$

$$3\frac{\square + \square}{30}$$

$$2\frac{\square - 2}{14}$$

$$6\frac{\square}{10}$$

$$4\frac{\square}{12}$$

$$3\frac{\square}{30}$$

$$2\frac{\square}{14}$$

$$7\frac{\square}{10}$$

$$\textcircled{10} \quad 2\frac{8}{9} + 1\frac{1}{3}$$

$$\textcircled{12} \quad 3\frac{7}{10} - 1\frac{99}{100}$$

$$\textcircled{14} \quad 4\frac{7}{8} + 2\frac{2}{3}$$

$$\textcircled{16} \quad 5\frac{4}{9} - 3\frac{3}{4}$$

$$3\frac{8 + \square}{9}$$

$$2\frac{\square - 99}{100}$$

$$6\frac{\square + \square}{24}$$

$$2\frac{\square - \square}{36}$$

$$3\frac{\square}{9}$$

$$1\frac{\square - 99}{100}$$

$$6\frac{\square}{24}$$

$$1\frac{\square - \square}{36}$$

$$4\frac{\square}{9}$$

$$1\frac{\square}{100}$$

$$7\frac{\square}{24}$$

$$1\frac{\square}{36}$$

Sheet 22 MULTIPLYING/DIVIDING FRACTIONS

22

MULTIPLYING

Multiply then cancel.

$$\frac{3}{4} \times \frac{2}{5} = \frac{\cancel{6}}{\cancel{20}} \frac{3}{10}$$

DIVIDING

Cancel before multiplying.

$$\frac{3}{8} \div 6 = \frac{\cancel{3}^1}{8 \times \cancel{6}_2} = \frac{1}{16}$$

Write the answer in its simplest form.

$$\textcircled{1} \quad \frac{1}{4} \times \frac{2}{5} = \frac{\cancel{2}}{\cancel{20}} \frac{1}{10}$$

$$\textcircled{2} \quad \frac{7}{12} \times \frac{2}{7} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{3} \quad \frac{2}{3} \times \frac{3}{8} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{4} \quad \frac{1}{2} \times \frac{4}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{5} \quad \frac{3}{4} \times \frac{7}{9} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{6} \quad \frac{2}{5} \times \frac{5}{8} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{7} \quad \frac{1}{4} \times \frac{5}{6} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{8} \quad \frac{2}{3} \times \frac{4}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{9} \quad \frac{5}{8} \times \frac{9}{10} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{10} \quad \frac{6}{7} \times \frac{1}{12} = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{11} \quad \frac{4}{7} \div 8 = \frac{\cancel{4}^1}{7 \times \cancel{8}_2} = \frac{1}{14}$$

$$\textcircled{12} \quad \frac{1}{4} \div 2 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{13} \quad \frac{4}{5} \div 6 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{14} \quad \frac{2}{3} \div 4 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{15} \quad \frac{5}{8} \div 3 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{16} \quad \frac{3}{4} \div 12 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{17} \quad \frac{6}{7} \div 9 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{18} \quad \frac{5}{6} \div 10 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{19} \quad \frac{8}{9} \div 4 = \frac{\boxed{}}{\boxed{}}$$

$$\textcircled{20} \quad \frac{9}{10} \div 6 = \frac{\boxed{}}{\boxed{}}$$

Sheet 23 FRACTIONS OF QUANTITIES

23

$$\frac{3}{8} \text{ of } 40 \text{ kg}$$

$$(\frac{1}{8} \text{ of } 40 \text{ kg}) \times 3$$

$$5 \text{ kg} \times 3$$

Answer 15 kg

$$\frac{1}{4} \text{ of } \square = 150 \text{ ml}$$

$$150 \text{ ml} \times 4$$

$$600 \text{ ml}$$

$$\frac{1}{4} \text{ of } 600 \text{ ml} = 150 \text{ ml}$$

Work out mentally.

$$\textcircled{1} \quad \frac{3}{4} \text{ of } 200 \quad \dots\dots\dots \textcircled{5} \quad \frac{3}{5} \text{ of } 100 \text{ g} \quad \dots\dots\dots \textcircled{9} \quad \frac{5}{6} \text{ of } 4.2 \text{ m} \quad \dots\dots\dots$$

$$\textcircled{2} \quad \frac{7}{10} \text{ of } 80 \quad \dots\dots\dots \textcircled{6} \quad \frac{5}{8} \text{ of } 40 \text{ cm} \quad \dots\dots\dots \textcircled{10} \quad \frac{9}{10} \text{ of } 300 \text{ ml} \quad \dots\dots\dots$$

$$\textcircled{3} \quad \frac{2}{3} \text{ of } 48 \quad \dots\dots\dots \textcircled{7} \quad \frac{11}{100} \text{ of } 10 \text{ kg} \quad \dots\dots\dots \textcircled{11} \quad \frac{4}{5} \text{ of } 65 \text{ p} \quad \dots\dots\dots$$

$$\textcircled{4} \quad \frac{4}{7} \text{ of } 84 \quad \dots\dots\dots \textcircled{8} \quad \frac{2}{9} \text{ of } 360 \text{ km} \quad \dots\dots\dots \textcircled{12} \quad \frac{33}{100} \text{ of } £5 \quad \dots\dots\dots$$

$$\textcircled{13} \quad \frac{1}{2} \text{ of } \square = 20 \text{ p} \quad \dots\dots\dots \textcircled{19} \quad \frac{1}{100} \text{ of } \square = 0.075 \text{ kg} \quad \dots\dots\dots$$

$$\textcircled{14} \quad \frac{1}{8} \text{ of } \square = 3 \quad \dots\dots\dots \textcircled{20} \quad \frac{1}{4} \text{ of } \square = 19 \quad \dots\dots\dots$$

$$\textcircled{15} \quad \frac{1}{3} \text{ of } \square = 0.6 \text{ m} \quad \dots\dots\dots \textcircled{21} \quad \frac{1}{11} \text{ of } \square = 12 \quad \dots\dots\dots$$

$$\textcircled{16} \quad \frac{1}{10} \text{ of } \square = £2.50 \quad \dots\dots\dots \textcircled{22} \quad \frac{1}{9} \text{ of } \square = 5 \text{ km} \quad \dots\dots\dots$$

$$\textcircled{17} \quad \frac{1}{5} \text{ of } \square = 16 \text{ cm} \quad \dots\dots\dots \textcircled{23} \quad \frac{1}{12} \text{ of } \square = £0.40 \quad \dots\dots\dots$$

$$\textcircled{18} \quad \frac{1}{9} \text{ of } \square = 8 \quad \dots\dots\dots \textcircled{24} \quad \frac{1}{6} \text{ of } \square = 200 \text{ m} \quad \dots\dots\dots$$

Sheet 24 DECIMAL FRACTIONS

24

Write as decimals.

$$\textcircled{1} \quad 2 \frac{513}{1000} \quad \overset{2.513}{\dots\dots\dots}$$

$$\textcircled{5} \quad 5 \frac{6}{100} \quad \dots\dots\dots$$

$$\textcircled{9} \quad \frac{6}{1000} \quad \dots\dots\dots$$

$$\textcircled{2} \quad \frac{79}{100} \quad \dots\dots\dots$$

$$\textcircled{6} \quad \frac{39}{1000} \quad \dots\dots\dots$$

$$\textcircled{10} \quad 3 \frac{82}{1000} \quad \dots\dots\dots$$

$$\textcircled{3} \quad \frac{428}{1000} \quad \dots\dots\dots$$

$$\textcircled{7} \quad 9 \frac{874}{1000} \quad \dots\dots\dots$$

$$\textcircled{11} \quad \frac{4}{100} \quad \dots\dots\dots$$

$$\textcircled{4} \quad 7 \frac{105}{1000} \quad \dots\dots\dots$$

$$\textcircled{8} \quad 1 \frac{35}{100} \quad \dots\dots\dots$$

$$\textcircled{12} \quad 8 \frac{697}{1000} \quad \dots\dots\dots$$

Write as mixed numbers.

$$\textcircled{13} \quad 6.28 \quad \overset{6 \frac{28}{100}}{\dots\dots\dots}$$

$$\textcircled{17} \quad 9.06 \quad \dots\dots\dots$$

$$\textcircled{21} \quad 0.002 \quad \dots\dots\dots$$

$$\textcircled{14} \quad 0.517 \quad \dots\dots\dots$$

$$\textcircled{18} \quad 0.801 \quad \dots\dots\dots$$

$$\textcircled{22} \quad 2.186 \quad \dots\dots\dots$$

$$\textcircled{15} \quad 1.9 \quad \dots\dots\dots$$

$$\textcircled{19} \quad 3.095 \quad \dots\dots\dots$$

$$\textcircled{23} \quad 10.01 \quad \dots\dots\dots$$

$$\textcircled{16} \quad 4.349 \quad \dots\dots\dots$$

$$\textcircled{20} \quad 0.43 \quad \dots\dots\dots$$

$$\textcircled{24} \quad 5.703 \quad \dots\dots\dots$$

Give the value of the underlined figure.

$$\textcircled{25} \quad 1.\underline{4}03 \quad \overset{4/10}{\dots\dots\dots}$$

$$\textcircled{29} \quad 28.\underline{7}14 \quad \dots\dots\dots$$

$$\textcircled{33} \quad 45.\underline{1}2 \quad \dots\dots\dots$$

$$\textcircled{26} \quad 19.17\underline{8} \quad \dots\dots\dots$$

$$\textcircled{30} \quad 60.09\underline{9} \quad \dots\dots\dots$$

$$\textcircled{34} \quad 7.60\underline{2} \quad \dots\dots\dots$$

$$\textcircled{27} \quad \underline{2}.562 \quad \dots\dots\dots$$

$$\textcircled{31} \quad 3.2\underline{3}1 \quad \dots\dots\dots$$

$$\textcircled{35} \quad 32.48\underline{9} \quad \dots\dots\dots$$

$$\textcircled{28} \quad 4.8\underline{5} \quad \dots\dots\dots$$

$$\textcircled{32} \quad 1\underline{6}.345 \quad \dots\dots\dots$$

$$\textcircled{36} \quad 0.\underline{5}96 \quad \dots\dots\dots$$

Sheet 25 ROUNDING DECIMALS**25**

Rounding to the nearest whole number	$2.495 \rightarrow 2$	$3.716 \rightarrow 4$
Rounding to 1 decimal place	$0.826 \rightarrow 0.8$	$9.489 \rightarrow 9.5$
Rounding to 2 decimal places	$5.175 \rightarrow 5.18$	$1.963 \rightarrow 1.96$
Rounding to 3 decimal places	$0.0309 \rightarrow 0.031$	$7.2851 \rightarrow 7.285$

Round to the nearest whole number.

1 2.833**2** 5.37**3** 8.714**4** 3.5**5** 0.29**6** 7.906

Round to the nearest tenth.

7 1.393**8** 4.625**9** 9.55**10** 3.139**11** 2.084**12** 5.74

Round to the nearest hundredth.

13 4.7302**14** 2.148**15** 8.504**16** 3.997**17** 7.612**18** 0.359

Round to one decimal place.

19 1.6418**20** 2.963**21** 9.2751**22** 6.519**23** 4.938**24** 5.8503

Round to two decimal places.

25 8.9472**26** 6.381**27** 3.5464**28** 5.2951**29** 7.0338**30** 0.6299

Round to three decimal places.

31 3.6086**32** 9.74735**33** 0.45454**34** 9.29292**35** 6.66666**36** 7.17171

Sheet 26 $\times / \div$ **DECIMALS BY 10, 100, 1000****26** $\times / \div$ by 10

digits move 1 place

$2.183 \times 10 = 21.83$

$0.86 \div 10 = 0.086$

 $\times / \div$ by 100

digits move 2 places

$3.7 \times 100 = 370$

$52 \div 100 = 0.52$

 $\times / \div$ by 1000

digits move 3 places

$0.409 \times 1000 = 409$

$6115 \div 1000 = 6.115$

Work out.

1 $0.07 \times 100 =$

2 $1.6 \times 1000 =$

3 $2.45 \times 10 =$

4 $8.294 \times 100 =$

5 $60 \div 1000 =$

6 $8 \div 10 =$

7 $30.3 \div 100 =$

8 $5297 \div 1000 =$

9 $0.14 \times 1000 =$

10 $0.006 \times 10 =$

11 $3.9 \times 100 =$

12 $1.101 \times 1000 =$

13 $5.2 \div 100 =$

14 $9 \div 1000 =$

15 $77.08 \div 10 =$

16 $462 \div 100 =$

Write in the missing number.

17 $\times 10 = 3.15$

18 $\times 1000 = 9043$

19 $\times 100 = 0.2$

20 $\times 1000 = 837$

21 $\div 100 = 2.06$

22 $\div 1000 = 1.509$

23 $\div 10 = 6.05$

24 $\div 100 = 0.212$

25 $\times 1000 = 400$

26 $\times 100 = 791$

27 $\times 10 = 4.8$

28 $\times 100 = 3.6$

29 $\div 1000 = 1.04$

30 $\div 10 = 8.026$

31 $\div 100 = 5.008$

32 $\div 1000 = 0.085$

Sheet 27 $\times/\div$ OF DECIMALS**27**

Write the answer only.

1 0.05×4

9 0.02×11

17 0.003×5

2 0.7×12

10 0.008×3

18 0.05×8

3 0.009×8

11 0.04×7

19 0.004×12

4 0.03×6

12 0.009×9

20 0.7×6

5 $0.03 \div 5$

13 $0.6 \div 12$

21 $0.063 \div 7$

6 $0.36 \div 9$

14 $4.8 \div 8$

22 $0.06 \div 3$

7 $5.6 \div 7$

15 $0.054 \div 6$

23 $5.4 \div 9$

8 $0.014 \div 2$

16 $0.28 \div 4$

24 $0.088 \div 11$

Work out using a formal written method. Work neatly and align decimal points.

25 139.6×3

26 42.53×9

27 1.275×6

28 84.39×7

$$\begin{array}{r} 139.6 \\ \times \quad 3 \\ \hline \end{array}$$

29 $31.2 \div 4$

30 $45.6 \div 12$

31 $4.2 \div 5$

32 $5.04 \div 8$

$$4 \overline{) 31.2}$$

Sheet 28 REMAINDERS AS DECIMALS

28

Work out to three decimal places where necessary.

$$\begin{array}{r} 1 \quad \quad \quad 7 \quad 2 \quad 9 \cdot 8 \\ 5 \overline{) 36149 \cdot 40} \end{array}$$

$$\begin{array}{r} 7 \\ 9 \overline{) 4638} \end{array}$$

$$\begin{array}{r} 13 \\ 4 \overline{) 2269} \end{array}$$

$$\begin{array}{r} 2 \\ 8 \overline{) 2054} \end{array}$$

$$\begin{array}{r} 8 \\ 3 \overline{) 8297} \end{array}$$

$$\begin{array}{r} 14 \\ 7 \overline{) 6038} \end{array}$$

$$\begin{array}{r} 3 \\ 4 \overline{) 2733} \end{array}$$

$$\begin{array}{r} 9 \\ 11 \overline{) 5925} \end{array}$$

$$\begin{array}{r} 15 \\ 6 \overline{) 1763} \end{array}$$

$$\begin{array}{r} 4 \\ 6 \overline{) 1059} \end{array}$$

$$\begin{array}{r} 10 \\ 8 \overline{) 1270} \end{array}$$

$$\begin{array}{r} 16 \\ 12 \overline{) 5255} \end{array}$$

$$\begin{array}{r} 5 \\ 7 \overline{) 1247} \end{array}$$

$$\begin{array}{r} 11 \\ 2 \overline{) 9685} \end{array}$$

$$\begin{array}{r} 17 \\ 9 \overline{) 6424} \end{array}$$

$$\begin{array}{r} 6 \\ 12 \overline{) 4311} \end{array}$$

$$\begin{array}{r} 12 \\ 5 \overline{) 3564} \end{array}$$

$$\begin{array}{r} 18 \\ 8 \overline{) 3747} \end{array}$$

$$\begin{array}{r} 19 \\ 18 \overline{) 4743} \end{array}$$

$$\begin{array}{r} 20 \\ 24 \overline{) 3834} \end{array}$$

$$\begin{array}{r} 21 \\ 35 \overline{) 8386} \end{array}$$

Sheet 29 PERCENTAGES**29**

Write as a percentage.

- | | | | |
|--------------|--------------|------------------|------------------|
| 1 0.41 | 5 0.8 | 9 $1/2$ | 13 $9/100$ |
| 2 0.1 | 6 0.01 | 10 $29/50$ | 14 $3/4$ |
| 3 0.08 | 7 0.25 | 11 $3/10$ | 15 $1/5$ |
| 4 0.99 | 8 0.7 | 12 $19/20$ | 16 $11/25$ |

Write as:

a) a fraction in its simplest form. b) a decimal.

- | | |
|--------------------------------|--------------------------------|
| 17 90% a) b) | 21 3% a) b) |
| 18 57% a) b) | 22 60% a) b) |
| 19 25% a) b) | 23 14% a) b) |
| 20 68% a) b) | 24 45% a) b) |

Find.

- | | |
|--------------------------|------------------------|
| 25 10% of 290 | 33 25% of 48 |
| 26 10% of 800 | 34 50% of 27 |
| 27 10% of £4 | 35 75% of 800 m |
| 28 10% of 16 cm | 36 50% of 9.9 km |
| 29 20% of 70 | 37 5% of 1000 |
| 30 30% of 350 | 38 5% of 60 |
| 31 90% of 500 ml | 39 1% of £20.00 |
| 32 60% of 2 litres | 40 1% of 7.5 kg |

Sheet 30 RATIO AND PROPORTION**30**

Use the back of the sheet for any working out.

- 1 Sharon drives 3 miles to every 2 miles driven by Steve.

a) How far does Steve drive if Sharon drives 120 miles?

b) How far does Sharon drive if the journey is 250 miles?

- 2 The ratio of white rolls to brown rolls baked by a baker is 5:3.

a) How many white rolls are baked if the 200 rolls are baked altogether?

b) How many brown rolls are baked if 100 white rolls are baked?

- 3 400 g of flour is used to make eight cakes.

a) How much flour is needed for 6 cakes?

b) How much flour is needed for 20 cakes?

- 4 It takes Vincent 10 minutes to walk 800 metres.

a) How far does he walk in 3 minutes?

b) How far does he walk in 35 minutes?

5

		✓	✓	
✓	x	x		✓
✓		✓	x	x
x	✓		x	✓

- a) Write the ratio of the ticks to crosses in its simplest form.

- b) Write the proportion of boxes with crosses as a percentage.

- 6 Find the cost of:

a) 9 eggs at £1.50 for 6.

b) 600 g of meat at £8.00 per kilogram.

c) 350 g of cheese at £6.40 per kilogram.

- 7 a) Split 1.2 litres of liquid in the ratio 3:1.

b) Cut a 2.8 m plank in the ratio 5:2.

c) Share £180 in the ratio 4:5.

Sheet 31 SCALE DRAWING**31**

Scales on plans and maps are shown in these two ways.

Examples

Using units

As a ratio

1 cm represents 1 m

1 : 100

1 cm represents 1 km

1 : 100 000

Write each scale as ratio.

- | | |
|------------------------------|-------------------------------|
| ① 1 mm represents 2 cm | ⑤ 1 cm represents 300 m |
| ② 1 cm represents 4 km | ⑥ 1 mm represents 1 cm |
| ③ 1 mm represents 1 m | ⑦ 1 cm represents 25 m |
| ④ 1 cm represents 5 m | ⑧ 1 mm represents 0.8 m |

Use the scale to work out the length represented by each line.

- | | | |
|------------------|-------|----------|
| ⑨ 1 : 100 000 | _____ | km |
| ⑩ 1 : 40 | _____ | m |
| ⑪ 1 : 5000 | _____ | m |
| ⑫ 1 : 200 | _____ | m |
| ⑬ 1 : 25 000 | _____ | km |
| ⑭ 1 : 10 000 000 | _____ | km |

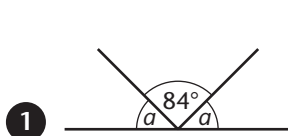
Give the scale for each line as a ratio.

- | | |
|----------------|-------|
| ⑮ _____ 6.4 m | ..... |
| ⑯ _____ 8 km | ..... |
| ⑰ _____ 200 m | ..... |
| ⑱ _____ 450 km | ..... |
| ⑲ _____ 20 m | ..... |
| ⑳ _____ 1.2 km | ..... |

Sheet 32 MISSING NUMBER PROBLEMS

32

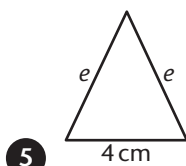
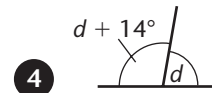
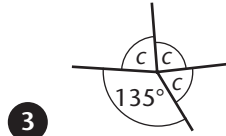
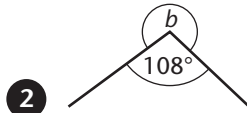
Write an equation to find the missing angles and lengths.



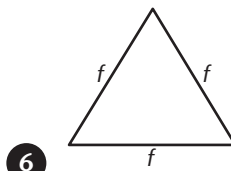
$$2a + 84 = 180$$

$$2a = 96$$

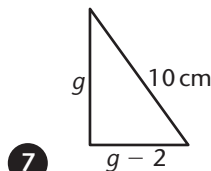
$$a = 48^\circ$$



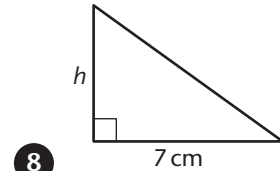
$$\text{Perimeter} = 16 \text{ cm}$$



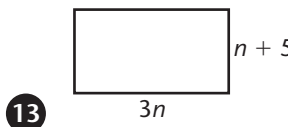
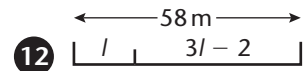
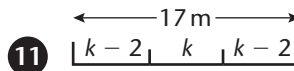
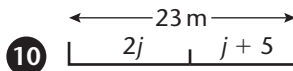
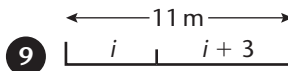
$$\text{Perimeter} = 21 \text{ cm}$$



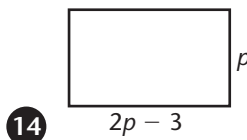
$$\text{Perimeter} = 24 \text{ cm}$$



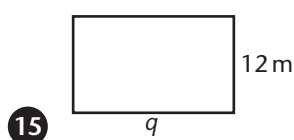
$$\text{Area} = 17.5 \text{ cm}^2$$



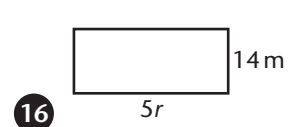
$$\text{Perimeter} = 90 \text{ cm}$$



$$\text{Perimeter} = 54 \text{ m}$$



$$\text{Area} = 240 \text{ m}^2$$



$$\text{Area} = 315 \text{ m}^2$$

Sheet 33 FINDING ALL POSSIBLE OUTCOMES**33**

Find both possible solutions.

$$3x + 5y = 31$$

$$x = 2, y = 5$$

$$x = 7, y = 2$$

Find all possible solutions.

$$4x + 3y = 46$$

$$x = 1, y = 14 \quad x = 7, y = 6$$

$$x = 4, y = 10 \quad x = 10, y = 2$$

Find both possible solutions.

1 $3x + y = 8$

$x = \dots\dots\dots, y = \dots\dots\dots$

$x = \dots\dots\dots, y = \dots\dots\dots$

3 $5x + 2y = 23$

$x = \dots\dots\dots, y = \dots\dots\dots$

$x = \dots\dots\dots, y = \dots\dots\dots$

5 $2x + 3y = 16$

$x = \dots\dots\dots, y = \dots\dots\dots$

$x = \dots\dots\dots, y = \dots\dots\dots$

2 $x + 4y = 10$

$x = \dots\dots\dots, y = \dots\dots\dots$

$x = \dots\dots\dots, y = \dots\dots\dots$

4 $3x + 4y = 29$

$x = \dots\dots\dots, y = \dots\dots\dots$

$x = \dots\dots\dots, y = \dots\dots\dots$

6 $5x + 3y = 37$

$x = \dots\dots\dots, y = \dots\dots\dots$

$x = \dots\dots\dots, y = \dots\dots\dots$

7 Find all the possible ways in which 50 people can be seated at tables of 4 and 6......²..... fours,⁷..... sixes.....⁵..... fours, sixes

..... fours, sixes

..... fours,¹..... six**8** Apples are sold in bags of 5 or 8. Find all the possible ways in which 159 apples can be bagged.

..... fives, eights

..... fives, eights

..... fives, eights

..... fives, eights

For each equation find all the possible values of x and y .

9 $5x + y = 23$

10 $3x + 2y = 23$

11 $4x + 5y = 63$

Sheet 34 NUMBER SEQUENCES

						The rule is:	The n th term is:
-4	-1	2	5	8	11	add 3	$3n - 7$
$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	add $\frac{1}{2}$	$\frac{n}{2} + 1$

Complete the sequence by filling in the boxes. Write the rule in words.

1	0.2		0.6		1.0		.....
2		-2	-1		1		.....
3		$1\frac{3}{4}$		$2\frac{1}{4}$	$2\frac{1}{2}$		.....
4			$1\frac{1}{8}$	$1\frac{1}{2}$		$2\frac{1}{4}$	.....
5		0.95		0.85		0.75	.....
6	22		60		98		.....
7		$1\frac{2}{3}$	$2\frac{1}{3}$		$3\frac{2}{3}$		.....
8	-12	-8				8	.....

Write the first six terms in each sequence.

- 9 $n + 99$
- 10 $\frac{n}{100}$ (decimals)
- 11 $4 - n$
- 12 $\frac{5n}{2} - 2$ (decimals)
- 13 $2n - 9$
- 14 $\frac{3n}{10}$ (decimals)
- 15 $2 + \frac{5n}{1000}$ (decimals)
- 16 $75n + 25$

Sheet 35 CONVERTING METRIC UNITS**35**

Complete by writing the missing number.

- | | | | | | |
|----|---------|------------------------------|----|--------------|---------|
| 1 | 3 mm | ^{0.3}.....cm | 17 | 90 cm |mm |
| 2 | 17 mm |cm | 18 | 228 cm |mm |
| 3 | 40 mm |m | 19 | 0.5 m |mm |
| 4 | 752 mm |m | 20 | 0.006 m |mm |
| 5 | 168 cm |m | 21 | 0.39 m |cm |
| 6 | 5 cm |m | 22 | 2.4 m |cm |
| 7 | 5380 m |km | 23 | 0.6 km |m |
| 8 | 21 m |km | 24 | 0.002 km |m |
| 9 | 18 g |kg | 25 | 0.2 kg |g |
| 10 | 372 g |kg | 26 | 0.043 kg |g |
| 11 | 4500 g |kg | 27 | 0.06 kg |g |
| 12 | 4 g |kg | 28 | 1.009 kg |g |
| 13 | 1297 ml |litres | 29 | 0.515 litres |ml |
| 14 | 60 ml |litres | 30 | 0.008 litres |ml |
| 15 | 9 ml |litres | 31 | 2.031 litres |ml |
| 16 | 505 ml |litres | 32 | 0.084 litres |ml |

Change to miles.

- | | | |
|----|--------|------------|
| 33 | 320 km |miles |
| 34 | 20 km |miles |
| 35 | 144 km |miles |
| 36 | 84 km |miles |

Change to kilometres.

- | | | |
|----|------------|---------|
| 37 | 35 miles |km |
| 38 | 150 miles |km |
| 39 | 22.5 miles |km |
| 40 | 75 miles |km |

Sheet 36 ADD/SUBTRACT NEGATIVE NUMBERS**36**

What would the temperature be if it was:

① -6°C and rose 4° -2°C

⑤ -7°C and fell 2°

② -1°C and fell 9°

⑥ 10°C and fell 6°

③ 4°C and fell 11°

⑦ -2°C and rose 3°

④ -3°C and rose 8°

⑧ -5°C and rose 4°

Complete the tables showing changes in temperature.

⑨

OLD	CHANGE	NEW
-8°C	$+5^{\circ}\text{C}$	
11°C	-8°C	
-1°C	-3°C	
-4°C	$+9^{\circ}\text{C}$	
1°C	-7°C	
-10°C	$+2^{\circ}\text{C}$	

⑩

OLD	CHANGE	NEW
	-3°C	-2°C
	$+6^{\circ}\text{C}$	4°C
	-10°C	-4°C
	-7°C	-2°C
	-15°C	5°C
	$+3^{\circ}\text{C}$	-3°C

Work out.

⑪ $2 + (-8)$

⑫ $-5 - (-6)$

⑬ $-8 + 12$

⑭ $-3 + 5$

⑮ $1 - (+4)$

⑯ $-11 - (-3)$

⑰ $-8 - (-2)$

⑱ $-6 + (-3)$

⑲ $12 + (-20)$

⑳ $4 - (+7)$

㉑ $-10 - (+5)$

㉒ $-7 + (-11)$

㉓ $-9 + (-4)$

㉔ $5 + (-2)$

㉕ $3 - (+10)$

㉖ $-2 - (+3)$

㉗ $-12 + 17$

㉘ $-14 - (-21)$

㉙ $11 + (-7)$

㉚ $-4 - (-15)$

㉛ $9 + (-6)$

㉜ $-1 - (-9)$

㉝ $7 - (-6)$

㉞ $-15 + 7$

㉟ $-5 + 7$

㊱ $-20 + 9$

㊲ $-6 - (+19)$

㊳ $13 - (-5)$

㊴ $8 + (-12)$

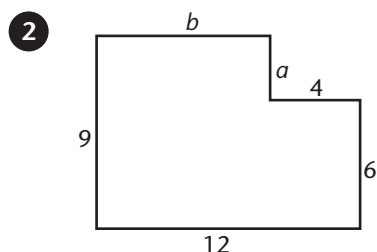
㊵ $10 - (-8)$

Sheet 37 AREA AND PERIMETER**37**

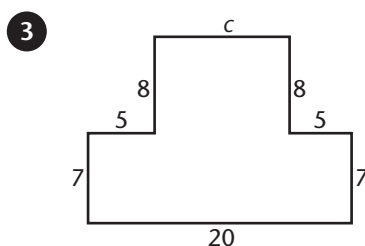
- 1 Complete the table showing the measurement of squares and rectangles.

LENGTH	WIDTH	PERIMETER	AREA
12 cm	8 cm		
	9 cm		81 cm ²
24 cm		58 cm	
	3 cm		33 cm ²
		80 cm	400 cm ²
	5 cm	44 cm	

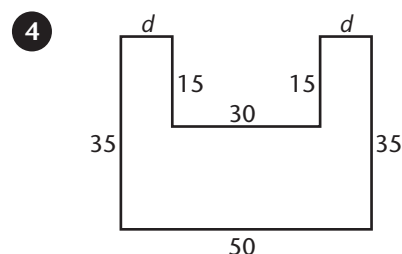
Work out missing lengths and the area and perimeter of each shape.
(All lengths are in centimetres.)



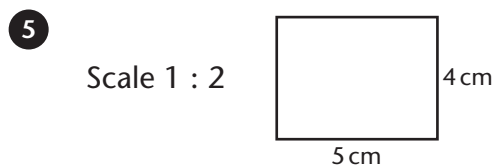
$a =$ cm
 $b =$ cm
 Area = cm²
 Perimeter = cm



$c =$ cm
 Area = cm²
 Perimeter = cm



$d =$ cm
 Area = cm²
 Perimeter = cm



Area of rectangle cm²
 Perimeter of rectangle cm

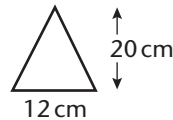
- 6 Using the same scale draw a rectangle with:

- a) The same perimeter as the above rectangle but a different area. Label the area. | b) The same area as the above rectangle but a different perimeter. Label the perimeter.

|
|
|
|
|
|

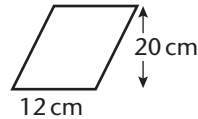
Sheet 38 AREA OF TRIANGLES/PARALLELOGRAMS**38**

$$\text{Area of triangle} = \frac{\text{base} \times \text{height}}{2}$$



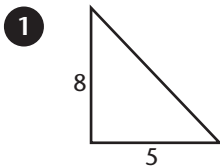
$$\text{Area} = 120 \text{ cm}^2$$

$$\text{Area of parallelogram} = \text{base} \times \text{height}$$

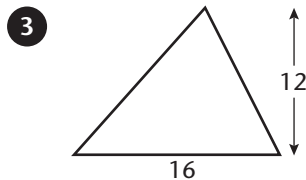


$$\text{Area} = 240 \text{ cm}^2$$

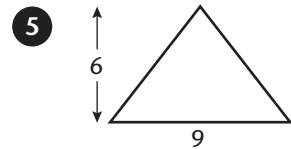
Find the area of each triangle. All lengths are in centimetres.



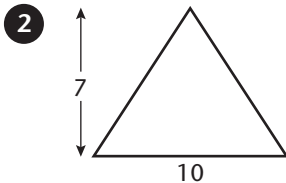
$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



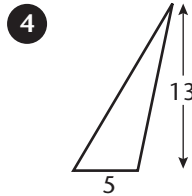
$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



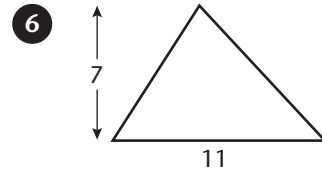
$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



$$\text{Area} = \dots\dots\dots \text{ cm}^2$$

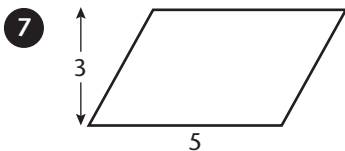


$$\text{Area} = \dots\dots\dots \text{ cm}^2$$

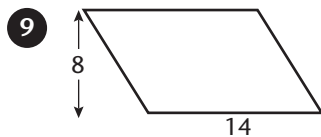


$$\text{Area} = \dots\dots\dots \text{ cm}^2$$

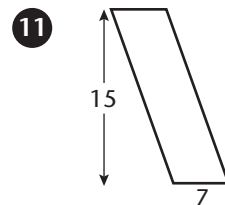
Find the area of each parallelogram. All lengths are in centimetres.



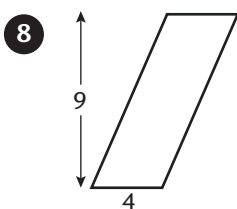
$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



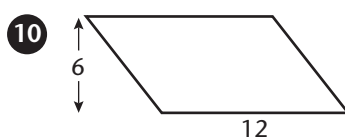
$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



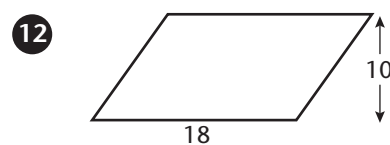
$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



$$\text{Area} = \dots\dots\dots \text{ cm}^2$$



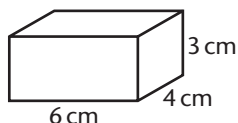
$$\text{Area} = \dots\dots\dots \text{ cm}^2$$

Sheet 39 VOLUME

39

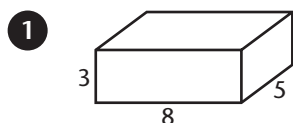
Volume is measured in cubic units.

Volume of a cuboid = length $\times$ breadth $\times$ height ($V = lbh$)

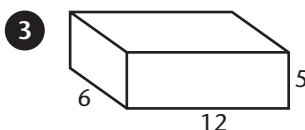


$$\begin{aligned}\text{Volume} &= (6 \times 4 \times 3) \text{ cm}^3 \\ &= 72 \text{ cm}^3\end{aligned}$$

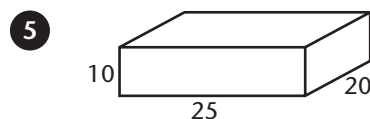
Find the volume of each cuboid. All lengths are in centimetres.



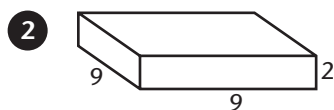
Volume = cm^3



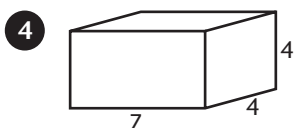
Volume = cm^3



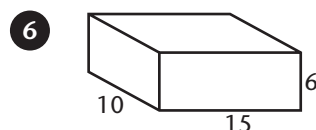
Volume = cm^3



Volume = cm^3



Volume = cm^3



Volume = cm^3

7 Complete the table.

LENGTH	BREADTH	HEIGHT	VOLUME
10 cm	6 cm		360 cm^3
40 cm		20 cm	$20\,000 \text{ cm}^3$
12 cm	9 cm		432 cm^3
	14 cm	5 cm	1540 cm^3
	12 cm	12 cm	2880 cm^3
24 cm		10 cm	3600 cm^3

Write the answers only. Use the back of the sheet for any workings out.

8 A cube has 5 cm edges. What is its volume? cm^3

9 A cube has a volume of $27\,000 \text{ cm}^3$. How long are its edges? cm

10 A cuboid room has a base area of 54 m^2 . Its volume is 189 m^3 .
What is its height? m

Sheet 40 DECIMAL NOTATION WORD PROBLEMS 40

Use a written method to solve each problem

- 1 Baby Emma weighs 4.15 kg.
Baby Lois weighs 485 g less.
What does Lois weigh?

$$\begin{array}{r} 4.15 \\ - 0.485 \\ \hline \end{array}$$

Lois weighs kg

- 5 A car hold 9.65 litres of petrol.
10% is used. How much is left?

..... litres are left

- 2 £1 is worth 1.25 Euros.
What is £84 worth in Euros?

£84 is worth Euros

- 6 One can of peas weighs 0.27 kg.
What do 16 cans weigh?

16 cans weigh kg

- 3 Vince's 200 m time is 21.3 seconds.
The world record is 19.19 seconds.
How much faster is the world record?

Answer seconds faster

- 7 12 football shirts cost £201 altogether.
What does one shirt cost?

Answer £

- 4 A row of 26 patio tiles is 11.7 m long.
How long is one tile?

Answer m

- 8 A bus route is 47.38 km long. What is
the total length of 8 journeys?

Answer km

Sheet 41 MEASURES PROBLEMS - CONVERTING UNITS 41

Use a written method to solve each problem.

- 1 One pin is made with 15 mm of wire. How many pins can be made with 4.02 m of wire?

Answer pins

- 5 A room has an area of 23.1 m^2 . It is 6 m long. How wide is the room?

Answer m cm

- 2 Tina's long jump is 5.59 m. The winning jump is 6.27 m. How much longer is the winning jump?

Answer cm

- 6 A full can of paint holds 2.25 litres. 485 ml is left. How much paint has been used?

Answer litres

- 3 Each ice cream scoop is 80 ml. How much ice cream is 35 scoops?

Answer litres

- 7 12 apples weigh 1.74 kg altogether. What is the mean weight of the apples?

Answer g

- 4 A small parcel weighs 1.65 kg. A larger parcel is 675 g heavier. What is the weight of the larger parcel?

Answer kg

- 8 Luigi's mean stride length is 75 cm. He walks 1624 paces. How far has he walked?

Answer km

Sheet 42 MULTI-STEP PROBLEMS - MEASURES**42**

Show your calculations and any working out.

- 1 A rectangular field is 65 m long and has an area of 2730 m².

What is its perimeter?

Answer m

$$2730 \div 65 = \dots\dots\dots$$

$$65 + \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots \times 2 = \dots\dots\dots$$

$$65 \overline{)2730}$$

- 2 Six equal glasses are poured from 1.5 litres of drink. 390 ml is left.

How much drink is in each glass?

Answer ml

- 3 300 g of meat costs £2.58. How much is one kilogram of meat?

Answer £

- 4 Large boxes of soap powder hold 1.35 kg. 3 large boxes hold 675 g

more than 5 small boxes. How much does each small box hold? Answer g

- 5 A watch loses 1.5 seconds every hour. How much time is lost in April?

Answer minutes

- 6 Alexis earns £2790 per month. She pays 20% income tax and saves

15 % of what is left. How much does she save?

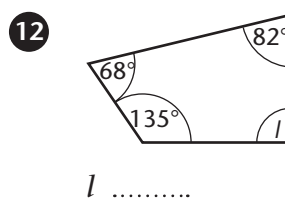
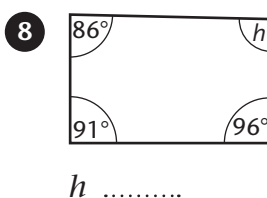
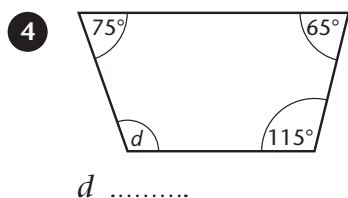
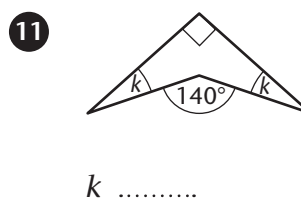
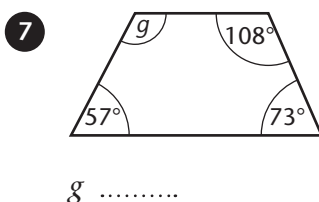
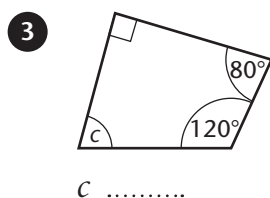
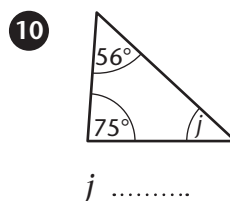
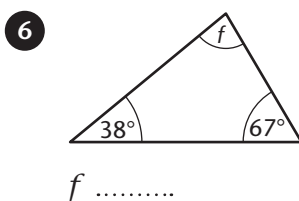
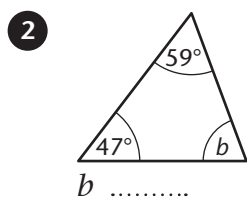
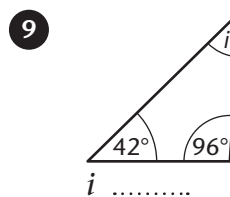
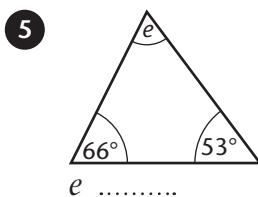
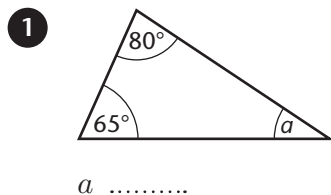
Answer £

Sheet 43 ANGLES IN 2-D SHAPES

The sum of the angles in a triangle is 180° .

The sum of the angles in a quadrilateral is 360° .

Find the missing angles.



Divide each regular polygon into triangles by joining corners. Fill in the boxes to find angle x .

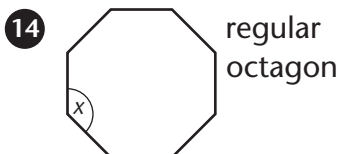


triangles

$\times 180^\circ =$ $^\circ$

$x =$ $^\circ \div 6$

$=$ $^\circ$

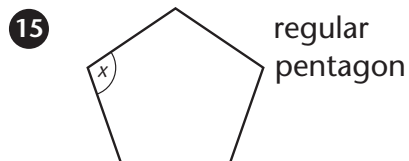


triangles

$\times 180^\circ =$ $^\circ$

$x =$ $^\circ \div 8$

$=$ $^\circ$



triangles

$\times 180^\circ =$ $^\circ$

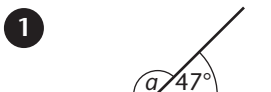
$x =$ $^\circ \div 5$

$=$ $^\circ$

Sheet 44 MISSING ANGLES

Write the missing angles.

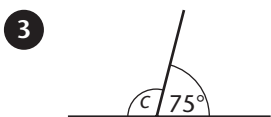
The sum of the angles on a straight line is 180° .



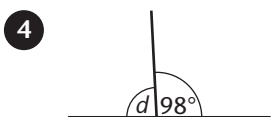
a



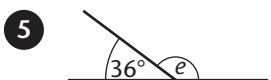
b



c



d

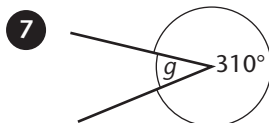


e

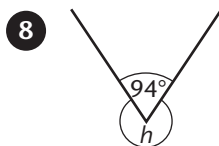


f

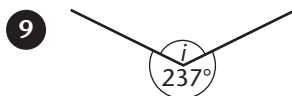
The sum of the angles at a point is 360° .



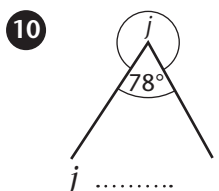
g



h



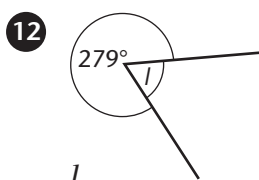
i



j

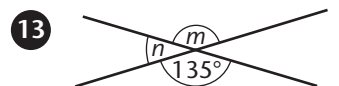


k

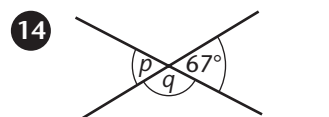


l

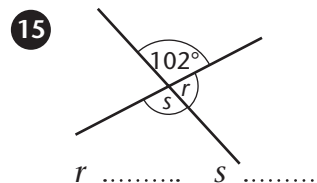
When straight lines cross each other opposite angles are equal.



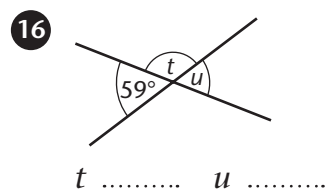
m n



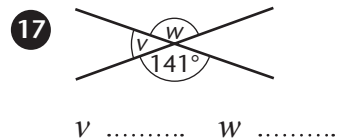
p q



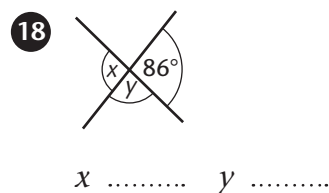
r s



t u



v w



x y

Sheet 45 CONSTRUCTING 2-D SHAPES**45**

Construct the following shapes. Label given angles and lengths.

- 1 Isosceles triangle ABC
AB 4.9 cm $\angle A 49^\circ$ $\angle B 48^\circ$

- 4 Parallelogram KLMN
KL 2.7 cm KN 3.3 cm $\angle K 72^\circ$

- 2 Scalene triangle DEF
DE 3.8 cm EF 2.6 cm DF 5.2 cm

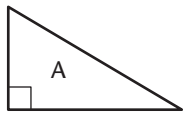
- 5 Symmetrical trapezium PQRS
PQ 2.9 cm RS 2.9 cm PS 5.4 cm $\angle S 67^\circ$

- 3 Rhombus GHIJ
Sides 2.4 cm $\angle G 55^\circ$

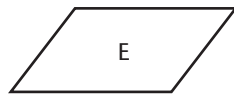
- 6 Regular pentagon
Sides 1.8 cm angles 108°

Sheet 46 TWO-DIMENSIONAL SHAPES

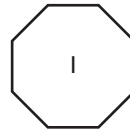
1 Label each shape (as in A, B and C below).



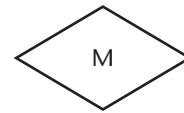
right-angled
triangle



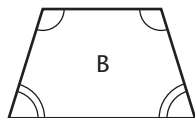
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.....



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.....



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.....



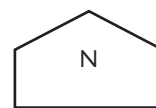
trapezium



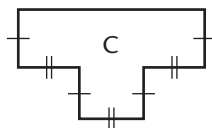
.....
.....



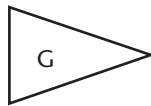
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.....



.....
.....



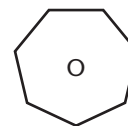
irregular
octagon



.....
.....



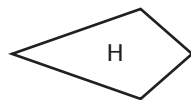
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.....



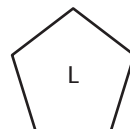
.....
.....



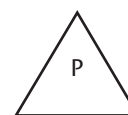
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.....



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.....



.....
.....



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.....

2 Mark all the right angles (as in A above).

3 Mark all the equal angles (as in B above).

4 Mark all the equal lines (as in C above).

5 Mark all the parallel (as in D above).

.....

Sheet 47 THREE-DIMENSIONAL SHAPES**47**

cube

square based pyramid

pentagonal based prism

cuboid

triangular based pyramid

hexagonal based prism

octahedron

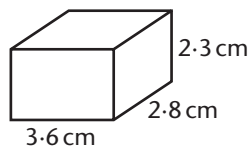
triangular based prism

octagonal based prism

- 1 Complete this table showing the properties of the above polyhedra.

SHAPE	FACES	EDGES	VERTICES
octahedron			
			12
cuboid			
	4		
		12	
	10		
			10
		8	
			6

- 2 Use a set square.
Make a net for this closed cuboid.

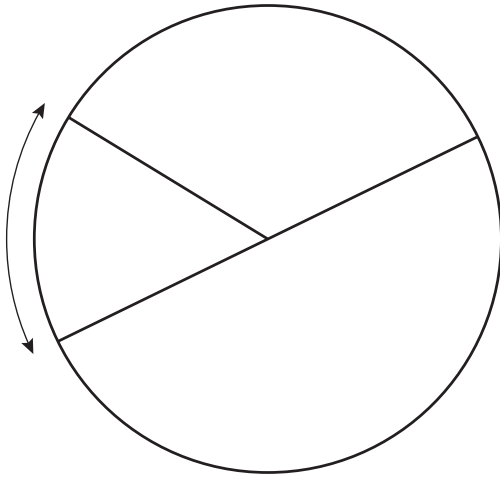


Sheet 48 CIRCLES**48**

- 1 Label the following.

diameter
radius

arc
sector



Give the radius of a circle with a diameter of:

2 17 cm cm 4 12.6 cm cm

3 7.4 cm cm 5 1.3 m m

Give the diameter of a circle with a radius of:

6 7.8 cm cm 8 0.74 m m

7 5.5 cm cm 9 9.9 cm cm

Construct the following.

- 10 A semi-circle diameter 5.8 cm

- 12 A quadrant (quarter circle) radius 3.2 cm

- 11 A sector radius 4.7 cm.
Angle at centre 37°

- 13 A sector radius 2.4 cm
Angle at centre 215°

Sheet 49 CO-ORDINATES

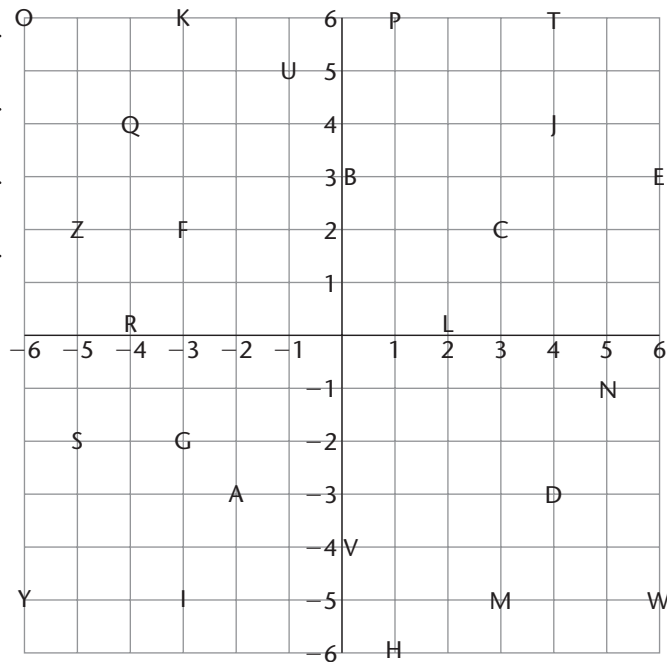
49

Which letter is at:

- 1 $(-3, 2)$ 5 $(2, 0)$
 2 $(5, -1)$ 6 $(-1, 5)$
 3 $(0, 3)$ 7 $(1, -6)$
 4 $(-6, -5)$ 8 $(4, 6)$

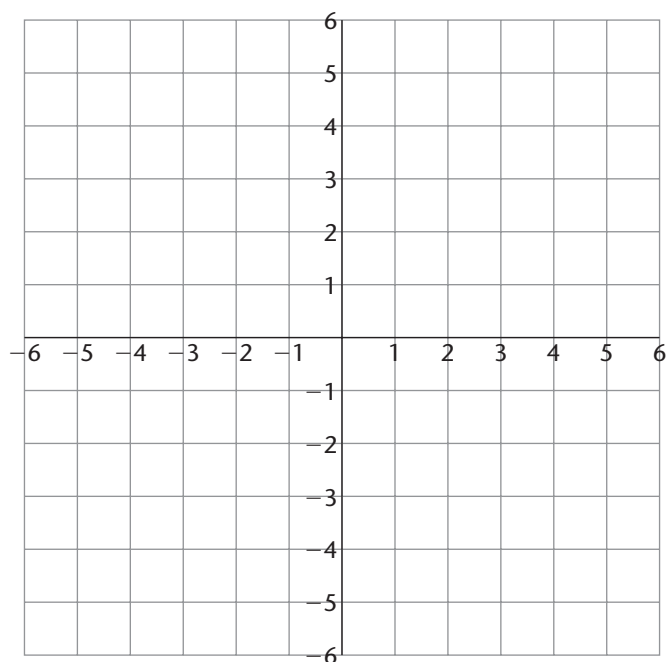
Give the position of:

- 9 A 13 R
 10 M 14 V
 11 Q 15 D
 12 E 16 S



Plot these points and join them up in the given order.

- 17 A $(-2, 3)$ 18 E $(1, -6)$
 B $(4, 5)$ F $(-3, -4)$
 C $(0, 1)$ G $(-1, 0)$
 D $(-6, -1)$ H $(3, -2)$
 A $(-2, 3)$ E $(1, -6)$



Identify each shape.

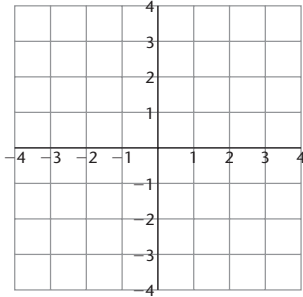
- 19 ABCD is a
 20 EFGH is a

Give the midpoint of each line.

- 21 AD 23 CD
 22 EH 24 EF

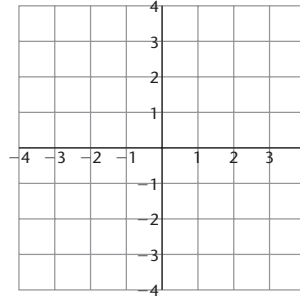
Sheet 50 TRANSLATIONS**50**

Plot the points and join them up in the order given. Translate the shape twice.

1

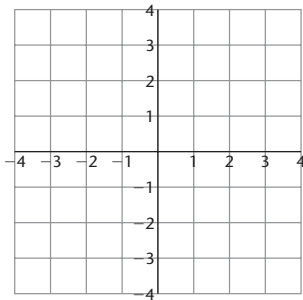
$(-3, -3)$
 $(-2, 0)$
 $(-1, -3)$
 $(-3, -3)$

Right 2, Up 3
 Right 4, Up 1

4

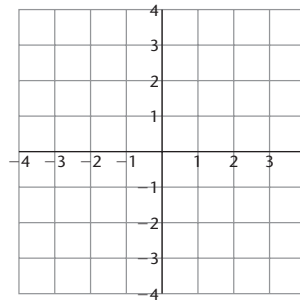
$(-3, 0)$
 $(-3, 2)$
 $(-2, 3)$
 $(0, 3)$
 $(-3, 0)$

Right 4, Down 3
 Left 1, Down 4

2

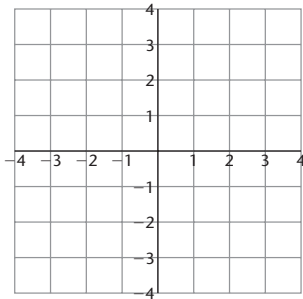
$(0, 1)$
 $(1, 3)$
 $(3, 3)$
 $(2, 1)$
 $(0, 1)$

Left 4, Down 2
 Left 2, Down 5

5

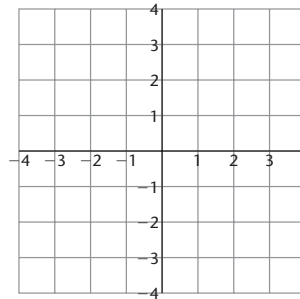
$(-4, 0)$
 $(-3, 1)$
 $(-1, 1)$
 $(-1, -1)$
 $(-2, -2)$
 $(-4, 0)$

Right 5, Up 2
 Right 3, Down 2

3

$(-1, -2)$
 $(1, -1)$
 $(0, -4)$
 $(-1, -2)$

Right 3, Up 3
 Left 2, Up 5

6

$(-1, 1)$
 $(2, 2)$
 $(0, -1)$
 $(-1, 1)$

Left 3, Up 1
 Right 2, Down 3

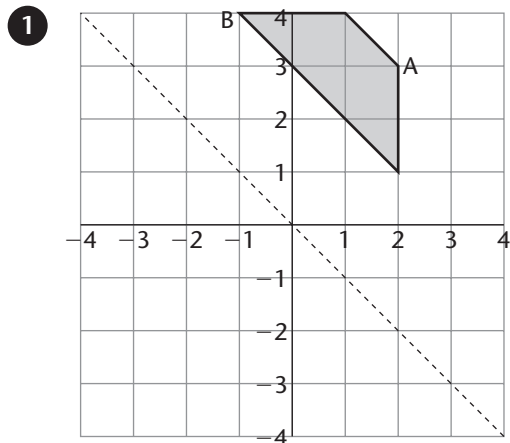
Sheet 51 REFLECTIONS**51**

Sketch the reflections of each shape:

a) in the mirror line

b) in the x axis.

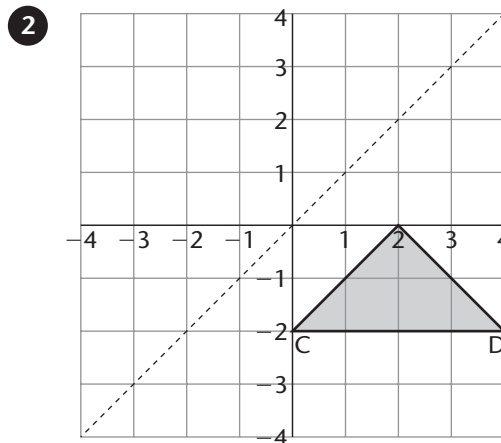
Give the co-ordinates of the points A - D in the original shape and in both reflections.



A (2, 3) B

.....

.....



C D

.....

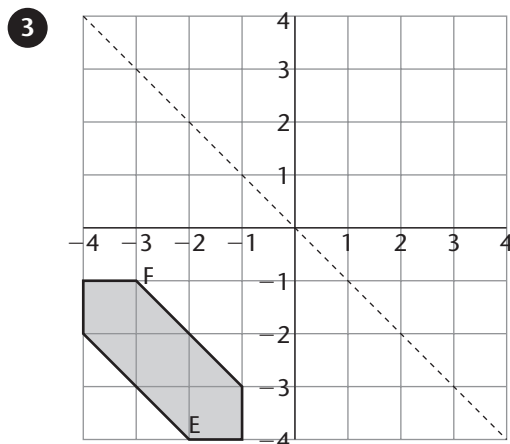
.....

Sketch the reflection of each shape:

a) in the mirror line

b) in the y axis.

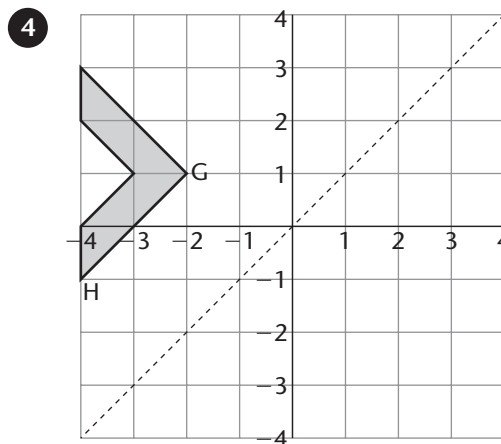
Give the co-ordinates of the points E - H in the original shape and in both reflections.



E F

.....

.....



G H

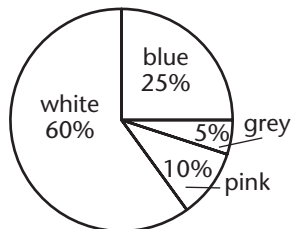
.....

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Sheet 52 PIE CHARTS**52**

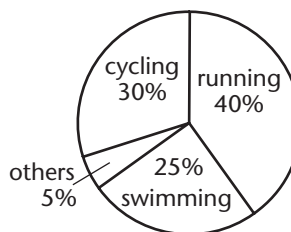
Complete the table using the information displayed in the pie chart:

- 1 The shirt colours chosen by 40 customers of a menswear shop.



COLOUR	CUSTOMERS
blue	
grey	
pink	
white	

- 2 The favourite sport of the 360 competitors in a triathlon.



SPORT	COMPETITORS
cycling	
running	
swimming	
others	

Construct a pie chart to show the data in the table.

- 3 500 American voters were asked if they would support the current President at the next election. These are the results:

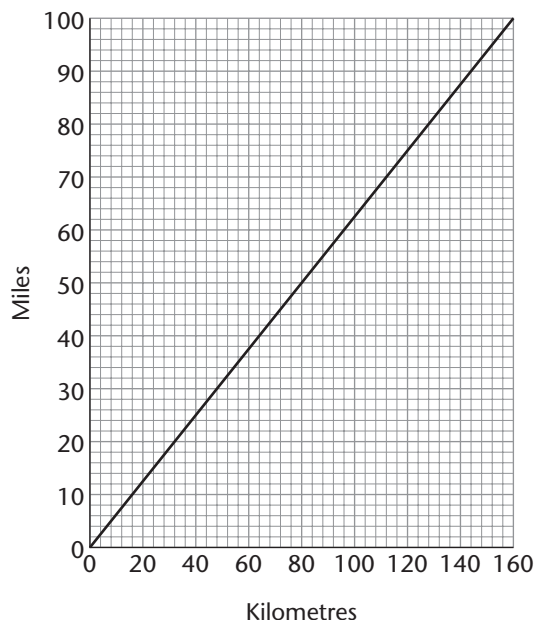
ANSWER	VOTERS
Yes	225
No	200
Don't know	75

- 4 This table shows the sizes of the 200 dresses sold in a boutique.

SIZE	DRESSES
Small	40
Medium	100
Large	50
XL	10

Sheet 53 CONVERSION GRAPHS**53**

This graph converts miles into kilometres:



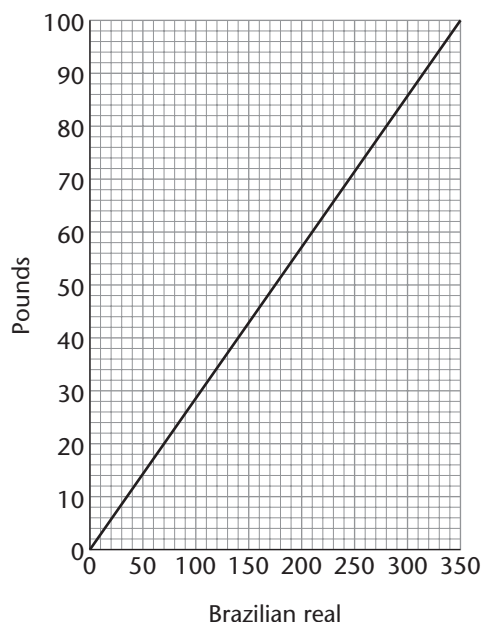
Convert to the nearest kilometre.

- 1 50 miles km
- 2 80 miles km
- 3 10 miles km
- 4 44 miles km
- 5 60 miles km

Convert to the nearest mile.

- 6 40 km miles
- 7 88 km miles
- 8 112 km miles
- 9 64 km miles
- 10 144 km miles

This graph converts Brazilian real into pounds:



Convert to the nearest 10 real.

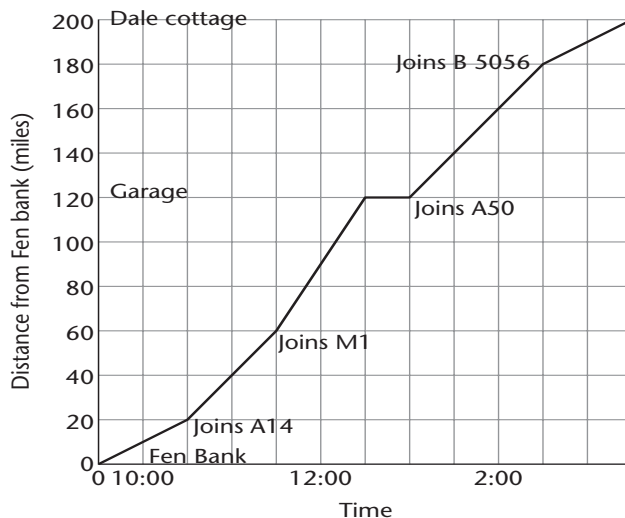
- 11 £80 real
- 12 £92 real
- 13 £46 real
- 14 £20 real
- 15 £54 real

Convert to the nearest pound.

- 16 140 real £
- 17 300 real £
- 18 80 real £
- 19 210 real £
- 20 50 real £

Sheet 54 LINE GRAPHS**54**

This line graph shows Derek's journey from Fen Bank to Dale Cottage.



At what time did Derek:

- 1 Leave Fen Bank?
- 2 Stop for petrol?
- 3 Reach Dale Cottage?

How far had Derek travelled when he:

- 4 Joined the A14? miles
- 5 Stopped for petrol? miles
- 6 Joined the B5056? miles

For how long did Derek:

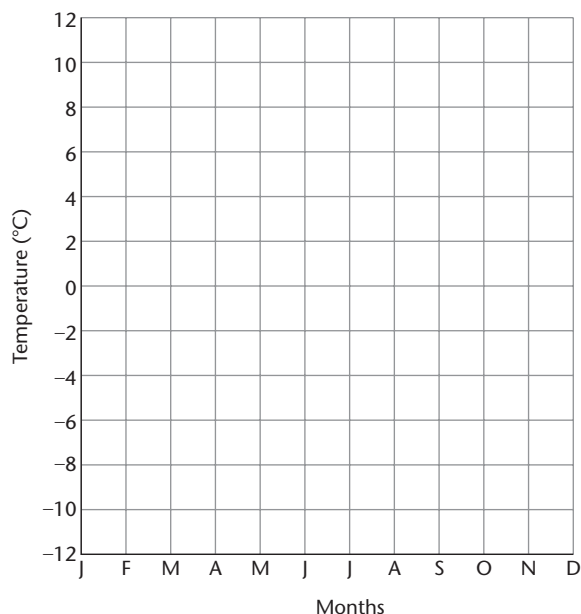
- 7 Drive on the M1?
- 8 Stop at the garage?
- 9 Drive on the A50?

How far did Derek travel on:

- 10 The A14? miles
- 11 The M1? miles
- 12 The B5056? miles

- 13 Use the table below to draw a line graph showing the average daily maximum and minimum temperatures for Nuuk in Greenland.

MONTH	MAX	MIN
January	-4°C	-10°C
February	-6°C	-11°C
March	-5°C	-11°C
April	-1°C	-6°C
May	4°C	-2°C
June	8°C	1°C
July	11°C	4°C
August	10°C	4°C
September	7°C	2°C
October	2°C	-3°C
November	-1°C	-6°C
December	-3°C	-8°C



Sheet 55 FINDING AND INTERPRETING THE MEAN 55

Fill in the boxes.

- 1 Zena's test marks.

70% 50% 65% 80% 55%

Number of tests

Total marks %

Mean mark %

- 3 Daily maximum temperature (°C).

13 15 16 21 18 14 15

Number of days

Total of temperatures °C

Mean temperature °C

- 2 Goals scored in football matches.

3 4 7 3 2 3

5 2 4 2

Number of matches

Total goals

Mean number of goals

- 4 Height of Year 6 children (m).

1.4 1.55 1.35 1.6

1.5 1.35 1.4 1.45

Number of children

Total heights m

Mean heights m

- 5 6 meals Total cost £45.

Mean cost per meal £

- 8 22 lines 143 words.

Mean number of words per line

- 6 30 days Total rainfall cm.

Mean rainfall per day 2.6 mm.

- 9 12 apples Total weight kg.

Mean weight 150 g.

- 7 hours Distance walked 17 km.

Mean distance per hour 4.25 km.

- 10 cars 85 people.

Mean people per car 2.5.

Sheet 56 MENTAL CALCULATIONS REVIEW**56**

Write the answer only.

- 1 Multiply 2.9 by 6.
- 2 Find $\frac{5}{8}$ of £560.
- 3 Subtract -3 from -5
- 4 Write 15g in kilograms.
- 5 Add 4008 to 169 547.
- 6 What is £59 reduced by 10%.
- 7 A triangle has angles of 64° and 37° . What is the third angle.
- 8 What is one thousandth of 430?
- 9 A square has a perimeter of 60 cm. What is its area?
- 10 Subtract 0.025 from 5.
- 11 What is the product of the first four prime numbers?
- 12 Round 6.142857 to three decimal places.
- 13 A triangle has an area of 18 cm^2 and a base length of 8 cm. What is its height?
- 14 Find the difference between one million and 300 600.
- 15 Add one third and one quarter.
- 16 What is the diameter of a circle with a radius of 2.65 m?
- 17 Find 30% of 1.5 litres.
- 18 Divide 600 000 by 12.
- 19 A cuboid is 50 cm wide and 60 cm tall. Its volume is $240\,000 \text{ cm}^3$.
What is its length?
- 20 What number when divided by 8 gives an answer of $3\frac{3}{4}$?

Sheet 57 NUMBER REVIEW**57**

Give the value of the underlined digit.

① 5 185 263

⑤ 24 933.21

② 3 562 097

⑥ 1851.065

③ 8 304 514

⑦ 712 379.8

④ 1 937 180

⑧ 4648.502

Write in order, smallest first (at the top).

⑨ 232 833

⑩ 1 011 901

⑪ 6 756 575

228 328

1 009 919

6 567 675

223 832

1 019 001

6 655 676

232 388

1 010 019

6 575 655

Round to the nearest 10 000.

⑫ 3 758 146

⑬ 263 795

⑭ 6 015 470

⑮ 497 321

Round to 2 decimal places.

⑯ 10.03267

⑰ 5.49903

⑱ 902.5708

⑲ 7.645219

Complete the table showing changes in temperature.

20	OLD	CHANGE	NEW
		-5°C	-2°C
	-8°C		7°C
	-4°C	-7°C	
		+10°C	4°C

Complete the table showing equivalent Arabic numbers and Roman numerals.

ARABIC	ROMAN
579	
943	
	DCCXXVIII
	CDXCVI

Sheet 58 FRACTIONS REVIEW

58

Work out. Write the answer in its simplest form.

$$1 \quad 3\frac{1}{3} + 2\frac{11}{12} = 5\frac{4+11}{12} = 5\frac{15}{12} = 6\frac{\cancel{3}}{\cancel{12}} \frac{1}{4}$$

$$2 \quad 2\frac{2}{5} + 1\frac{3}{4} =$$

$$3 \quad 5\frac{3}{10} - 2\frac{4}{5} =$$

$$4 \quad 4\frac{1}{2} - 3\frac{2}{3} =$$

Write the answer in its simplest form.

$$5 \quad \frac{2}{3} \times \frac{3}{5} = \frac{\cancel{3}}{\cancel{15}} \frac{2}{5}$$

$$6 \quad \frac{5}{8} \times \frac{4}{7} =$$

$$7 \quad \frac{3}{4} \times \frac{11}{12} =$$

$$8 \quad \frac{5}{6} \times \frac{4}{15} =$$

$$9 \quad \frac{9}{10} \div 3 = \frac{9}{10} \times \frac{1}{3} =$$

$$10 \quad \frac{5}{8} \div 5 =$$

$$11 \quad \frac{6}{11} \div 4 =$$

$$12 \quad \frac{4}{5} \div 12 =$$

Work out.

$$13 \quad 0.9 \times 4 \quad \dots\dots\dots$$

$$17 \quad 0.54 \div 6 \quad \dots\dots\dots$$

$$21 \quad 0.032 \times 1000 \quad \dots\dots\dots$$

$$14 \quad 0.006 \times 7 \quad \dots\dots\dots$$

$$18 \quad 0.056 \div 8 \quad \dots\dots\dots$$

$$22 \quad 5.146 \times 100 \quad \dots\dots\dots$$

$$15 \quad 0.08 \times 3 \quad \dots\dots\dots$$

$$19 \quad 0.108 \div 12 \quad \dots\dots\dots$$

$$23 \quad 0.27 \div 10 \quad \dots\dots\dots$$

$$16 \quad 0.005 \times 12 \quad \dots\dots\dots$$

$$20 \quad 0.4 \div 5 \quad \dots\dots\dots$$

$$24 \quad 680 \div 1000 \quad \dots\dots\dots$$

25 Complete the table.

FRACTION	DECIMAL	% AGE
		30%
$\frac{3}{4}$		
		7%
$\frac{4}{5}$		

Find.

$$26 \quad \frac{7}{12} \text{ of } £480 \quad \quad \quad £ \dots\dots\dots$$

$$27 \quad \frac{3}{8} \text{ of } 400 \text{ ml} \quad \quad \quad \dots\dots\dots \text{ ml}$$

$$28 \quad 20\% \text{ of } 1.75 \text{ litres} \quad \quad \quad \dots\dots\dots \text{ litres}$$

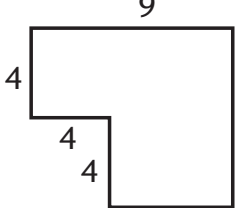
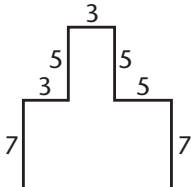
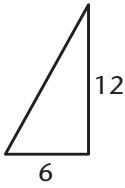
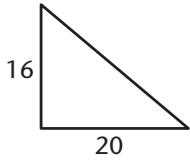
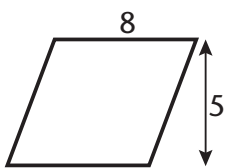
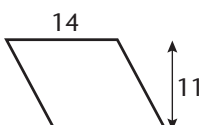
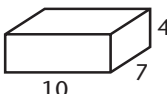
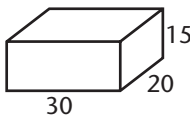
$$29 \quad 5\% \text{ of } 3 \text{ cm} \quad \quad \quad \dots\dots\dots \text{ cm}$$

Sheet 59 MEASURES REVIEW**59**

Write the missing measurements to complete the conversion.

- | | | | | | |
|---|---------|------------------------|----|--------------|----------|
| 1 | 1.6 mm | ¹⁶ cm | 9 | 0.9 cm | mm |
| 2 | 230 cm | m | 10 | 0.64 m | cm |
| 3 | 58 m | km | 11 | 1.35 km | m |
| 4 | 1900 mm | m | 12 | 0.02 m | mm |
| 5 | 10 g | kg | 13 | 2.7 kg | g |
| 6 | 768 ml | litres | 14 | 0.005 litres | ml |
| 7 | 400 km | miles | 15 | 35 miles | km |
| 8 | 12 km | miles | 16 | 2.5 miles | km |

Find the missing measurements. All lengths are in centimetre.

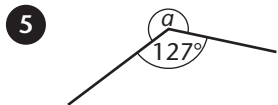
- | | | | | | | | |
|-----------|---|-----------|---|--------|--|--------|---|
| 17 |  | 18 |  | 21 |  | 22 |  |
| Area | cm ² | Area | cm ² | Area | cm ² | Area | cm ² |
| Perimeter | cm | Perimeter | cm | | | | |
| 19 |  | 20 |  | 23 |  | 24 |  |
| Area | cm ² | Area | cm ² | Volume | cm ³ | Volume | cm ³ |

Sheet 60 GEOMETRY REVIEW

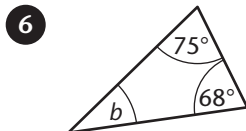
Identify the shape.

- 1 8 equal sides
 2 8 faces, 18 edges
 3 2 pairs of equal sides, not symmetrical
 4 5 vertices

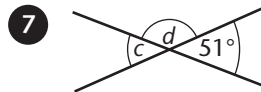
Find the missing angles.



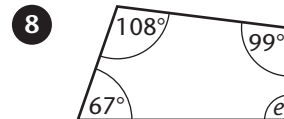
a



b



c d



e

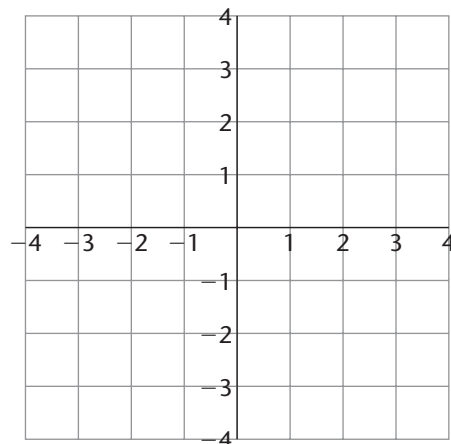
Construct these shapes.

- 9 A sector
angle at centre 113°
radius 2.7 cm
- 10 A rhombus
two angles of 72°
sides 1.9 cm
- 11 Isosceles triangle
2 angles of 36°
longest side 4.6 cm

- 12 Plot the co-ordinates in the order given and join up to form a shape
 $(-1, -3)$ $(-3, 1)$ $(-1, -1)$ $(-1, -3)$

- 13 Translate the shape:
a) left 1, down 1
b) right 5, up 3

- 14 Reflect the shape:
a) in the y axis
b) in a mirror line $(-4, 4)$ to $(4, -4)$



YEAR 6 HOMEWORK SHEETS – ANSWERS

HS1

1 700 000	8 2	15 30	22 6497 175
2 900	9 5000	16 80 000	23 1 001 829
3 30 000	10 10 000	17 2 043 918	24 8940
4 5 000 000	11 60	18 710 264	25 2 026 283
5 80	12 2 000 000	19 300 040	26 6 852 547
6 6000	13 400	20 980 000	
7 400 000	14 900 000	21 4 984 032	
27 823 388	823 833	832 238	833 322
28 179 971	197 199	197 711	199 197
29 4 006 646	4 060 640	4 064 046	4 400 066
30 2 527 727	2 552 572	2 722 577	2 725 252

HS2

1 562 000	562 300	600 000
2 7 235 000	7 235 100	7 200 000
3 82 000	82 000	100 000
4 9 654 000	9 654 200	9 700 000
5 2 110 000	2 109 900	2 100 000
6 4 870 000	4 870 500	4 900 000
7 5 840 740	6 000 000	5 841 000
8 2 462 900	2 000 000	2 463 000
9 617 170	1 000 000	617 000
10 1 259 650	1 000 000	1 260 000
11 6 506 380	7 000 000	6 506 000
12 8 941 530	9 000 000	8 942 000
13 4.1	4	4.06
14 13.8	14	13.79
15 2.8	3	2.83
16 298.5	298	298.5

HS3

1 7°C	9 9°C	17 -3°C
2 -7°C	10 26°C	18 -5°C
3 15°C	11 19°C	19 1°C
4 -16°C	12 14°C	20 -13°C
5 3°C	13 5°C	21 8°C
6 -11°C	14 4°C	22 -19°C
7 10°C	15 31°C	23 -4°C
8 18°C	16 -12°C	

24	Old	Change	New	Old	Change	New
	2°C	-8°C	-6°C	-3°C	+6°C	3°C
	-7°C	+12°C	5°C	-10°C	+4°C	-6°C
	-3°C	-15°C	-18°C	8°C	-21°C	-13°C
	19°C	-23°C	-4°C	-1°C	+5°C	4°C
	-23°C	+7°C	-16°C	-15°C	+8°C	-7°C
	-5°C	-9°C	-14°C	16°C	-17°C	-1°C

HS4

1 215	11 327	21 DXLII	31 DC LI
2 643	12 890	22 CCXXVI	32 CMXXXVII
3 168	13 675	23 CCCLXXXIX	33 CCLXXXIV
4 429	14 952	24 DCIII	34 DCCXCIII
5 780	15 108	25 CDLXVII	35 DXX
6 357	16 514	26 DCCXXX	36 DCCCXVI
7 592	17 741	27 CLIV	37 CLXXIX
8 834	18 486	28 CCXCV	38 CDV
9 901	19 263	29 DCCCLXXI	39 CMXLVIII
10 476	20 639	30 CMXVIII	40 CCCLXII

HS5

1 92 256	5 40 546	9 75 830	13 64 338	17 81 693
2 78 613	6 58 748	10 27 658	14 100 024	18 6457
3 50 503	7 87 012	11 11 649	15 76 722	
4 8349	8 41 063	12 24 674	16 49 692	

HS6

1 10 766	6 19 370	11 8508	16 6514.8	21 210.76
2 16 488	7 32 296	12 33 534	17 147.8	22 383.52
3 22 350	8 28 192	13 85.11	18 206.14	23 1398.4
4 13 456	9 16 500	14 591.6	19 3766.5	24 4579.2
5 21 231	10 34 734	15 1315.6	20 2454.9	

HS7

1 22 095	5 103 356	9 97 253	13 12 070.1
2 78 732	6 56 472	10 118 248	14 1858.48
3 47 090	7 126 991	11 9091.6	15 21 098.4
4 162 334	8 100 275	12 643.34	

HS8

1 11 152	5 28 413	9 34 370	13 44 744	17 60 021
2 11 307	6 32 599	10 23 556	14 68 950	18 153 630
3 34 140	7 33 584	11 41 661	15 116 909	
4 45 333	8 58 380	12 22 064	16 172 584	

HS9

1 437	7 386	13 1.84	19 72.25
2 529	8 948	14 73.2	20 48.75
3 865	9 9.36	15 5.86	21 56.35
4 473	10 15.9	16 19.5	22 169.5
5 294	11 3.76	17 26.45	23 14.96
6 652	12 92.7	18 6.14	24 75.75

HS10

1 253	4 185	7 164	10 3.79
2 176	5 $397\frac{1}{19}$	8 $150\frac{7}{54}$	11 19.4
3 $249\frac{10}{35}$	6 328	9 3.82	12 1.36

HS11

1 284	5 $951\frac{3}{5}$	9 5.46	13 428	17 2.65
2 $739\frac{2}{4}$	6 $467\frac{4}{8}$	10 75.3	14 159	18 31.65
3 548	7 629	11 3.65	15 $183\frac{18}{29}$	
4 $172\frac{10}{12}$	8 $893\frac{1}{6}$	12 63.9	16 $274\frac{12}{17}$	

HS12

1 13	3 33	5 17	7 58	9 16
2 25	4 45	6 18	8 53	10 26

HS13

1 560	11 90	21 700	31 3300	41 8
2 4500	12 60	22 500	32 300	42 11
3 1800	13 720	23 30	33 200	43 40
4 24 000	14 3500	24 80	34 28 000	44 80
5 60	15 56 000	25 12	35 640	45 42 000
6 8	16 13 200	26 1100	36 3600	46 12 100
7 5	17 4500	27 60	37 12	47 1080
8 30	18 270	28 700	38 90	48 5400
9 12	19 48 000	29 63 000	39 6	
10 5	20 4800	30 3600	40 70	

HS14

1 4.8	11 1.2	21 0.5	31 12.1	41 0.9
2 2.4	12 0.8	22 0.3	32 2.4	42 0.8
3 2.7	13 4.2	23 0.7	33 4.0	43 1.2
4 7.7	14 8.4	24 0.8	34 4.8	44 0.8
5 1.2	15 1.6	25 1.1	35 13.2	45 4.5
6 0.4	16 7.2	26 0.4	36 3.6	46 4.9
7 0.5	17 3.6	27 0.8	37 0.7	47 4.4
8 1.1	18 5.5	28 1.2	38 1.1	48 7.2
9 0.9	19 6.3	29 1.5	39 0.5	
10 0.6	20 14.4	30 5.4	40 0.3	

HS15

1 553 213	9 445 413	17 2100	25 3200
2 2043 948	10 920 064	18 108	26 0.57
3 580 615	11 213 359	19 0.5	27 25.2
4 2421 685	12 1 708 457	20 3.4	28 108
5 5086 232	13 673 913	21 144	29 12
6 226 281	14 370 975	22 4	30 0
7 1 286 057	15 2 097 625	23 0	31 40
8 497 888	16 749 478	24 24.5	32 10.8

HS16

1 18,36,etc	7 45	13 1,3	19 31,37,41,43,47
2 21,42,etc	8 20	14 1,3,9	20 71,73,79,83,89,97
3 20,40,etc	9 42	15 1,2,3,4,6,12	21 111 133 333
4 33,66,etc	10 60	16 1,5,25	22 $2 \times 2 \times 7$
5 40,80,etc	11 36	17 1,2,4,7,14	23 $3 \times 3 \times 5$
6 52,104,etc	12 66	18 1,2,3,6,9,18	24 $2 \times 3 \times 13$
25 $2 \times 2 \times 2 \times 2 \times 2$			
26 $2 \times 2 \times 5 \times 5$			
27 $2 \times 3 \times 3 \times 3$			

HS17

1 5	12 $5 \times (7 - 3) = 20$
2 19	13 $(16 + 8) \div 2 = 12$
3 39	14 $9 \times (5 - 2) = 27$
4 25	15 $(20 \div 5) - 1 = 3$
5 105	16 $(4 + 8) \times 2 = 24$
6 238	17 $90 \div (10 + 5) = 6$
7 20	18 $(20 - 15) \div 5 = 1$
8 9	19 $2 - (0.5 \times 3) = 0.5$
9 9	20 $12 + (8 \div 4) = 14$
10 $2 \times (3 + 4) = 14$	21 $(4 \times 6) + 2 = 26$
11 $(72 \div 12) \times 3 = 18$	

HS18

1 100 698	3 £1.35	5 48	7 167 km
2 6.25 litres	4 25 m	6 27 000 kg	8 £6.95

HS19

1 $\frac{3}{6}$	9 $\frac{6}{8}$	17 $\frac{2}{3}$	25 $\frac{3}{2}$ or $1\frac{1}{2}$
2 $\frac{8}{10}$	10 $\frac{40}{100}$	18 $\frac{9}{10}$	26 $\frac{1}{4}$
3 $\frac{25}{100}$	11 $\frac{4}{12}$	19 $\frac{1}{5}$	27 $\frac{3}{5}$
4 $\frac{14}{20}$	12 $\frac{50}{100}$	20 $\frac{3}{4}$	28 $\frac{2}{3}$
5 $\frac{6}{9}$	13 $\frac{10}{12}$	21 $\frac{1}{2}$	29 $\frac{5}{6}$
6 $\frac{2}{12}$	14 $\frac{4}{16}$	22 $\frac{1}{6}$	30 $\frac{1}{2}$
7 $\frac{2}{4}$	15 $\frac{10}{16}$	23 $\frac{5}{8}$	31 1
8 $\frac{30}{100}$	16 $\frac{55}{100}$	24 $\frac{2}{3}$	32 $\frac{3}{4}$

HS20

1 <	10 >	19 $\frac{7}{6}$ $\frac{11}{9}$ $\frac{15}{12}$ $\frac{4}{3}$
2 =	11 =	20 $\frac{5}{4}$ $\frac{8}{6}$ $\frac{7}{5}$ $\frac{3}{2}$
3 >	12 >	21 $\frac{5}{8}$
4 <	13 =	22 $\frac{7}{20}$
5 <	14 <	23 $\frac{5}{6}$
6 <	15 <	24 $\frac{5}{24}$
7 >	16 <	25 $\frac{38}{45}$
8 =	17 $\frac{3}{5}$ $\frac{5}{8}$ $\frac{13}{20}$ $\frac{2}{3}$	26 $\frac{13}{21}$
9 >	18 $\frac{3}{8}$ $\frac{4}{10}$ $\frac{5}{12}$ $\frac{1}{2}$	

HS21

1 $1\frac{3}{8}$	5 $\frac{11}{12}$	9 $7\frac{4}{10}$	13 $3\frac{23}{30}$
2 $1\frac{3}{12}$	6 $1\frac{3}{10}$	10 $4\frac{2}{9}$	14 $7\frac{13}{24}$
3 $\frac{2}{6}$	7 $\frac{23}{40}$	11 $4\frac{4}{12}$	15 $2\frac{5}{14}$
4 $\frac{5}{10}$	8 $\frac{4}{15}$	12 $1\frac{71}{100}$	16 $1\frac{25}{36}$

HS22

1 $\frac{1}{10}$	5 $\frac{7}{12}$	9 $\frac{9}{16}$	13 $\frac{2}{15}$	17 $\frac{2}{21}$
2 $\frac{1}{6}$	6 $\frac{1}{4}$	10 $\frac{1}{14}$	14 $\frac{1}{6}$	18 $\frac{1}{12}$
3 $\frac{1}{4}$	7 $\frac{5}{24}$	11 $\frac{1}{14}$	15 $\frac{5}{24}$	19 $\frac{2}{9}$
4 $\frac{2}{5}$	8 $\frac{8}{15}$	12 $\frac{1}{8}$	16 $\frac{1}{16}$	20 $\frac{3}{20}$

HS23

1 150	9 3.5 m	17 80 cm
2 56	10 270 ml	18 72
3 32	11 52p	19 7.5 kg
4 48	12 £1.65	20 76
5 60g	13 40p	21 132
6 25 cm	14 24	22 45 km
7 1.1 kg	15 1.8 m	23 £4.80
8 80 km	16 £25	24 1.2 km

HS24

1 2.513	10 3.082	19 $3\frac{95}{1000}$	28 $\frac{5}{100}$
2 0.79	11 0.04	20 $\frac{43}{100}$	29 $\frac{7}{10}$
3 0.428	12 8.697	21 $\frac{2}{1000}$	30 $\frac{9}{1000}$
4 7.105	13 $6\frac{28}{100}$	22 $2\frac{186}{1000}$	31 $\frac{3}{100}$
5 5.06	14 $\frac{517}{1000}$	23 $10\frac{1}{100}$	32 6
6 0.039	15 $1\frac{9}{10}$	24 $5\frac{703}{1000}$	33 $\frac{1}{10}$
7 9.874	16 $4\frac{349}{1000}$	25 $\frac{4}{10}$	34 $\frac{2}{1000}$
8 1.35	17 $9\frac{6}{100}$	26 $\frac{8}{1000}$	35 $\frac{8}{100}$
9 0.006	18 $\frac{801}{1000}$	27 2	36 $\frac{5}{10}$

HS25

1 3	10 3·1	19 1·6	28 5·3
2 5	11 2·1	20 3·0	29 7·03
3 9	12 5·7	21 9·3	30 0·63
4 4	13 4·73	22 6·5	31 3·609
5 0	14 2·15	23 4·9	32 9·747
6 8	15 8·5	24 5·9	33 0·455
7 1·4	16 4·0	25 8·95	34 9·293
8 4·6	17 7·61	26 6·38	35 6·667
9 9·6	18 0·36	27 3·55	36 7·172

HS26

1 7	9 140	17 0·315	25 0·4
2 1600	10 0·06	18 9·043	26 7·91
3 24·5	11 390	19 0·002	27 0·48
4 829·4	12 1101	20 0·837	28 0·036
5 0·06	13 0·052	21 206	29 1040
6 0·8	14 0·009	22 1509	30 80·26
7 0·303	15 7·708	23 60·5	31 500·8
8 5·297	16 4·62	24 21·2	32 85

HS27

1 0·2	9 0·22	17 0·015	25 418·8
2 8·4	10 0·024	18 0·4	26 382·77
3 0·072	11 0·28	19 0·048	27 7·65
4 0·18	12 0·081	20 4·2	28 590·73
5 0·006	13 0·05	21 0·009	29 7·8
6 0·04	14 0·6	22 0·02	30 3·8
7 0·8	15 0·009	23 0·6	31 0·84
8 0·007	16 0·07	24 0·008	32 0·63

HS28

1 729·8	8 2765·666	15 293·833
2 256·75	9 538·636	16 437·916
3 683·25	10 158·75	17 713·777
4 176·5	11 4842·5	18 468·375
5 178·142	12 712·8	19 263·5
6 359·25	13 567·25	20 159·75
7 515·333	14 862·571	21 239·6

HS29

1 41%	5 80%	9 50%	13 9%
2 10%	6 1%	10 58%	14 75%
3 8%	7 25%	11 30%	15 20%
4 99%	8 70%	12 95%	16 44%
17 a) $\frac{9}{10}$	b) 0·9	25 29	33 12
18 a) $\frac{57}{100}$	b) 0·57	26 80	34 13·5
19 a) $\frac{1}{4}$	b) 0·25	27 40p	35 600 m
20 a) $\frac{17}{25}$	b) 0·68	28 1·6 cm	36 4·95 km
21 a) $\frac{3}{100}$	b) 0·03	29 14	37 50
22 a) $\frac{3}{5}$	b) 0·6	30 105	38 3
23 a) $\frac{7}{50}$	b) 0·14	31 450 ml	39 20p
24 a) $\frac{9}{20}$	b) 0·45	32 1·2 litres	40 75 g

HS30

1 a) 80 miles	b) 150 miles	
2 a) 125	b) 60	
3 a) 300 g	b) 1 kg	
4 a) 240 m	b) 2·8 km	
5 a) 4:3	b) 30%	
6 a) £2·25	b) £4·80	c) £2·24
7 a) 900 ml, 300 ml	b) 2 m, 80 cm	c) £80, £100

HS31

1 1:20	6 1:10	11 375 m	16 1:100 000
2 1:400 000	7 1:2500	12 11·6 m	17 1:4000
3 1:1000	8 1:800	13 2·075 km	18 1:5 000 000
4 1:500	9 6·2 km	14 470 km	19 1:250
5 1:30 000	10 1·56 m	15 1:100	20 1:20 000

HS32

1 $a = 48^\circ$	7 $g = 8$ cm, 6 cm	13 30 cm, 15 cm
2 $b = 252^\circ$	8 $h = 5$ cm	14 17 m, 10 m
3 $c = 75^\circ$	9 4 m, 7 m	15 $q = 20$ m
4 $d = 83^\circ, 97^\circ$	10 12 m, 11 m	16 $5r = 22·5$ m
5 $e = 6$ cm	11 5 m, 7 m, 5 m	
6 $f = 7$ cm	12 15 m, 43 m	

HS33

1 $x1$ $y5$	7 2 fours, 7 sixes	10 $x1$ $y10$
$x2$ $y2$	5 fours, 5 sixes	$x3$ $y7$
2 $x2$ $y2$	8 fours, 3 sixes	$x5$ $y4$
$x6$ $y1$	11 fours, 1 sixes	$x7$ $y1$
3 $x1$ $y9$	8 3 fives, 18 eights	11 $x2$ $y11$
$x3$ $y4$	11 fives, 13 eights	$x7$ $y7$
4 $x3$ $y5$	19 fives, 8 eights	$x12$ $y3$
$x7$ $y2$	27 fives, 3 eights	
5 $x2$ $y4$	9 $x1$ $y18$	
$x5$ $y2$	$x2$ $y13$	
6 $x2$ $y9$	$x3$ $y8$	
$x5$ $y4$	$x4$ $y3$	

HS34

1 0·2 0·4 0·6 0·8 1·0 1·2
2 -3 -2 -1 0 1 2
3 $1\frac{1}{2}$ $1\frac{3}{4}$ 2 $2\frac{1}{4}$ $2\frac{1}{2}$ $2\frac{3}{4}$
4 $\frac{3}{8}$ $\frac{3}{4}$ $1\frac{1}{8}$ $1\frac{1}{2}$ $1\frac{7}{8}$ $2\frac{1}{4}$
5 1 0·95 0·9 0·85 0·8 0·75
6 22 41 60 79 98 117
7 1 $1\frac{2}{3}$ $2\frac{1}{3}$ 3 $3\frac{2}{3}$ $4\frac{1}{3}$
8 -12 -8 -4 0 4 8
9 100 101 102 103 104 105
10 0·01 0·02 0·03 0·04 0·05 0·06
11 3 2 1 0 -1 -2
12 0·5 3 5·5 8 10·5 13
13 -7 -5 -3 -1 1 3
14 0·3 0·6 0·9 1·2 1·5 1·8
15 2·005 2·01 2·015 2·02 2·025 2·03
16 100 175 250 325 400 475

HS35

1 0·3	11 4·5	21 39	31 2031
2 1·7	12 0·004	22 240	32 84
3 0·04	13 1·297	23 600	33 200
4 0·752	14 0·06	24 2	34 12·5
5 1·68	15 0·009	25 200	35 90
6 0·05	16 0·505	26 43	36 52·5
7 5·38	17 900	27 60	37 56
8 0·021	18 2280	28 1009	38 240
9 0·018	19 500	29 515	39 36
10 0·372	20 6	30 8	40 120

HS36

1 -2°C	4 5°C	7 1°C
2 -10°C	5 -9°C	8 -1°C
3 -7°C	6 4°C	

9	Old	Change	New	10	Old	Change	New
	-8°C	+5°C	-3°C		1°C	-3°C	-2°C
	11°C	-8°C	3°C		-2°C	+6°C	4°C
	-1°C	-3°C	-4°C		6°C	-10°C	-4°C
	-4°C	+9°C	5°C		5°C	-7°C	-2°C
	1°C	-7°C	-6°C		20°C	-15°C	5°C
	-10°C	+2°C	-8°C		-6°C	+3°C	-3°C

11 -6	17 4	23 -9	29 -11	35 -7
12 2	18 8	24 -15	30 -4	36 7
13 -6	19 2	25 3	31 4	37 3
14 -3	20 18	26 5	32 -8	38 -8
15 -13	21 1	27 11	33 -8	39 -25
16 -5	22 -3	28 13	34 -18	40 18

HS37

1	Length	Width	Perimeter	Area
	12 cm	8 cm	40 cm	96 cm ²
	9 cm	9 cm	36 cm	81 cm ²
	24 cm	5 cm	58 cm	120 cm ²
	11 cm	3 cm	28 cm	33 cm ²
	20 cm	20 cm	80 cm	400 cm ²
	17 cm	5 cm	44 cm	85 cm ²

2 <i>a</i> 3 cm	<i>b</i> 8 cm	Area 96 cm ²	Perimeter 42 cm
3 <i>c</i> 10 cm	Area 220 cm ²	Perimeter 70 cm	
4 <i>d</i> 10 cm	Area 1300 cm ²	Perimeter 200 cm	
5 Area 20 cm ²	Perimeter 18 cm		

HS38

1 20 cm ²	4 32.5 cm ²	7 15 cm ²	10 72 cm ²
2 35 cm ²	5 27 cm ²	8 36 cm ²	11 105 cm ²
3 96 cm ²	6 38.5 cm ²	9 112 cm ²	12 180 cm ²

HS39

- 1** 120 cm³
2 162 cm³
3 360 cm³
4 112 cm³
5 5000 cm³
6 900 cm³

7	Length	Width	Height	Volume
	10 cm	6 cm	6 cm	360 cm ³
	40 cm	25 cm	20 cm	20 000 cm ³
	12 cm	9 cm	4 cm	432 cm ³
	22 cm	14 cm	5 cm	1540 cm ³
	20 cm	12 cm	12 cm	2880 cm ³
	24 cm	15 cm	10 cm	3600 cm ³

- 8** 125 cm³
9 30 cm
10 3.5 m

HS40

1 3.665 kg	3 2.11 seconds	5 8.685 litres	7 £16.75
2 105 Euros	4 0.45 m	6 4.32 kg	8 379.04 km

HS41

1 268	3 2.8 litres	5 3 m 85 cm	7 145 g
2 68 cm	4 2.325 kg	6 1.765 litres	8 1.218 km

HS42

1 214 m	3 £8.60	5 18 minutes
2 185 ml	4 675 g	6 £334.80

HS43

1 <i>a</i> 35°	7 <i>g</i> 122°	13 120°
2 <i>b</i> 74°	8 <i>h</i> 87°	14 135°
3 <i>c</i> 70°	9 <i>i</i> 42°	15 108°
4 <i>d</i> 105°	10 <i>j</i> 49°	
5 <i>e</i> 61°	11 <i>k</i> 25°	
6 <i>f</i> 75°	12 <i>l</i> 75°	

HS44

1 133°	7 50°	13 <i>m</i> 135°	<i>n</i> 45°
2 57°	8 266°	14 <i>p</i> 67°	<i>q</i> 113°
3 105°	9 123°	15 <i>r</i> 78°	<i>s</i> 102°
4 82°	10 282°	16 <i>t</i> 121°	<i>u</i> 59°
5 144°	11 205°	17 <i>v</i> 39°	<i>w</i> 141°
6 68°	12 81°	18 <i>x</i> 86°	<i>y</i> 94°

HS46

1 A right-angled triangle	I regular octagon
B trapezium	J scalene triangle
C irregular octagon	K kite (allow dart or quadrilateral)
D irregular hexagon	L regular pentagon
E parallelogram	M rhombus
F regular hexagon	N irregular pentagon
G isosceles triangle	O regular heptagon
H kite	P equilateral triangle

HS47

1	Shape	Faces	Edges	Vertices
	octahedron	8	12	6
	hexagonal based prism	8	18	12
	cuboid	6	12	8
	triangular based pyramid	4	6	4
	cube	6	12	8
	octagonal based prism	10	24	16
	pentagonal based prism	7	15	10
	square based pyramid	5	8	5
	triangular based prism	5	9	6

HS48

2 8.5 cm	4 6.3 cm	6 15.6 cm	8 1.48 m
3 3.7 cm	5 0.65 m	7 11 cm	9 19.8 cm

HS49

1 F	7 H	13 (-4, 0)	21 (-4, 1)
2 N	8 T	14 (0, -4)	22 (2, -4)
3 B	9 (-2, -3)	15 (4, -3)	23 (-3, 0)
4 Y	10 (3, -5)	16 (-5, -2)	24 (-1, -5)
5 L	11 (-4, 4)	19 parallelogram	
6 U	12 (6, 3)	20 square	

HS51

1 A (2, 3)(-3, -2)(2, -3)	3 E (-2, -4)(4, 2)(2, -4)
B (-1, 4)(-4, 1)(-1, -4)	F (-3, -1)(1, 3)(3, -1)
2 C (0, -2)(-2, 0)(0, 2)	4 G (-2, 1)(1, -2)(2, 1)
D (4, -2)(-2, 4)(4, 2)	H (-4, -1)(-1, -4)(4, -1)

HS52

1	Colour	Customers	Sport	Competitors
	blue	10	cycling	108
	grey	2	running	144
	pink	4	swimming	90
	white	24	other	18

HS53

- 1 80 km

2 128 km

3 16 km

4 70 km

5 96 km
- 6 25 miles

7 55 miles

8 70 miles

9 40 miles

10 90 miles
- 11 280 real

12 320 real

13 160 real

14 70 real

15 190 real
- 16 £40

17 £86

18 £23

19 £60

20 £14

HS54

- 1 9:30

2 12:30

3 3:30
- 4 20 miles

5 120 miles

6 180 miles
- 7 1 hour

8 30 minutes

9 1h 30 mins
- 10 40 miles

11 60 miles

12 20 miles

HS55

- 1 5, 320%, 64%

2 10, 35, 3·5

3 7, 112°C, 16°C

4 8, 11·6 m, 1·45 m

5 £7·50
- 6 7·8 cm

7 4 hours

8 6·5

9 1·8 kg

10 34

HS56

- 1 17·4

2 £350

3 −2

4 0·015 kg

5 173 555

6 £53·10

7 79°
- 8 0·43

9 225 cm²

10 4·975

11 210

12 6·143

13 4·5 cm

14 699 400
- 15 $\frac{7}{12}$

16 5·3 m

17 450 ml

18 50 000

19 80 cm

20 30

HS57

- 1 80 000

2 3 000 000

3 500

4 900 000

5 4000

6 $\frac{6}{100}$

7 70

8 $\frac{2}{1000}$

9 223 832

228 328

232 388

232 833
- 10 1 009 919

1 010 019

1 011 901

1 019 001

11 6 567 675

6 575 655

6 655 676

6 756 575

12 3 760 000

13 260 000

14 6 020 000

15 500 000
- 16 10·03

17 5·5

18 902·57

19 7·65

20

Old	Change	New
3°C	−5°C	−2°C
−8°C	+15°C	7°C
−4°C	−7°C	−11°C
−6°C	+10°C	4°C

Arabic	Roman
579	DLXXIX
943	CMXLIII
728	DCCXXVIII
496	CDXCVI

HS58

- 1 $6\frac{1}{4}$

2 $4\frac{3}{20}$

3 $2\frac{5}{10}$

4 $\frac{5}{6}$

5 $\frac{2}{5}$

6 $\frac{5}{14}$

7 $\frac{11}{16}$

8 $\frac{2}{9}$
- 9 $\frac{9}{30}$

10 $\frac{1}{8}$

11 $\frac{3}{22}$

12 $\frac{1}{15}$

13 3·6

14 0·042

15 0·24

16 0·06
- 17 0·09

18 0·007

19 0·009

20 0·08

21 32

22 514·6

23 0·027

24 0·68

25

Fraction	Decimal	% age
$\frac{3}{10}$	0·3	30%
$\frac{3}{4}$	0·75	75%
$\frac{7}{100}$	0·07	7%
$\frac{4}{5}$	0·8	80%

- 26 £280
- 27 150 ml
- 28 0·35 litres
- 29 15 cm

HS59

- 1 16

2 2·3

3 0·058

4 1·9

5 0·01

6 0·768

7 250

8 7·5
- 9 9

10 64

11 1350

12 20

13 2700

14 5

15 56

16 4
- 17 56 cm², 34 cm

18 92 cm², 46 cm

19 40 cm²

20 154 cm²

21 36 cm²

22 160 cm²

23 280 cm³

24 9000 cm³

HS60

- 1 regular octagon

2 hexagonal based prism

3 parallelogram

4 square based pyramid
- 5 a 233°

6 b 37°

7 c 51° d 129°

8 e 86°