# Number, Shape and Measure 

# Book Two Point Five 

By KinLearning

FirstEdition

Copyright © 2020 Kamilah Hale
All rights reserved.
Written and designed by Kamilah Hale with Penelope Hale.
No part of this book can be reproduced in any form or by written, electronic or mechanical, including photocopying, recording, or by any information retrieval system without written permission in writing from Kamilah Hale.

Published by Kin Leaming
Printed by Book Printing UK www.bookprintinguk.com
RemusHouse,ColtsfootDrive,Peterborough,PE29BF
Printed inGreat Britain
Although every precaution has been taken in the preparation of this book, the publisher and author assume no responsibility foremors or omissions. Neither is any liability assumed for damages resulting from the use of information contained herein.

## Table of Contents

Bonds to 100 and 1000 ..... 3
Adding 10, 100 and 1000 ..... 3
Number Bonds ..... 4
Doubles and Halves ..... 5
Mental Maths - Large Numbers ..... 6
Negative Numbers ..... 7
Ordering Numbers ..... 8
Place Value 1 ..... 8
Prime Numbers, Factors and Multiples ..... 10
Money ..... 11
Arithmetic ..... 14
Arithmetic Review ..... 21
Number Facts ..... 22
Number Lines ..... 23
Rounding ..... 24
Halfway Between ..... 25
Missing Numbers ..... 26
Working Backwards ..... 28
Arithmetic Problems 1 ..... 31
Difference Between Questions ..... 32
Time Differences 1 ..... 33
Time Differences 2 ..... 34
Time Differences 3 ..... 35
Time Differences 4 ..... 36
Time Differences 5 ..... 37
24-Hour Time ..... 38
Dates ..... 39
Imperial and Metric Measures ..... 40
Averages ..... 46
Arithmetic Problems 2 ..... 48
Weight Scales ..... 49
Length Scales ..... 50
Capacity Scales ..... 51
Estimating Angles ..... 52
Co-ordinates ..... 53
Drawing Lines of Symmetry ..... 55
Properties of Shapes ..... 56
Calculating Angles ..... 57
Horizontal and Vertical Lines of Symmetry ..... 58
Area and Perimeter ..... 59
Review Quizzes ..... 62

## Bonds to 100 and 1000

## Section 1

1. $100-79=$
2. $100-38=$
3. $100-20=$
4. $100-56=$
5. $100-16=$
6. $100-15=$
7. $100-9=$
8. $100-93=$
9. $100-2=$
10. $100-60=$
11. $100-42=$
12. $100-80=$

Section 2

1. $100-53=$
2. $100-72=$
3. $100-37=$
4. $100-83=$
5. $100-50=$
6. $100-8=$
7. $100-16=$
8. $100-14=$
9. $100-48=$
10. $100-63=$
11. $100-5=$
12. $100-83=$

Section 3

1. $1000-210=$
2. $1000-140=$
3. $1000-290=$
4. $1000-80=$
5. $1000-810=$
6. $1000-500=$
7. $1000-750=$
8. $1000-670=$
9. $1000-990=$
10. $1000-520=$
11. $1000-940=$
12. $1000-620=$

## Adding 10, 100 and 1000

Section 1

1. $4323+100=$
2. $6462+1000=$
3. $3594+10=$
4. $8933+100=$
5. $3686+10=$
6. $9738+100=$
7. $6598+10=$
8. $8686+100=$
9. $4587+100=$
10. $6749+100=$
11. $3978+100=$
12. $9254+100=$

Section 2

1. $8507-100=$
2. $9210+100=$
3. $7531-10=$
4. $1068+10=$
5. $5472+1000=$
6. $5585-100=$
7. $649+1000=$
8. $3341-1000=$
9. $5412-100=$
10. $3737+10=$
11. $3560+10=$
12. $2774-1000=$

## Number Bonds

There are four number cards below. Use them to fill in the blanks and complete the sum.

Example:

1.

5.

2.

$+$

3.

6.

4.

7.



## Doubles and Halves

## Section 1

1. Double $21 / 2=$
2. Double $31 / 2=$
3. Double $101 / 2=$
4. Double $91 / 2=$
5. Double $41 / 2=$
6. Double $51 / 2=$
7. Double $71 / 2=$
8. Double $81 / 2=$
9. Double $1 \frac{1}{2}=$
10. Double $61 / 2=$

## Section 2

Fill in the gaps below. Work from the example down.
a) $8+1=9$

Half of $8=$
Half of $1=$
Half of $9=$

## b) $4+1=5$ <br> Half of $4=$ <br> Half of $1=$ <br> Half of $5=$

## c) $2+1=3$ <br> Half of $2=$ <br> Half of $1=$ <br> Half of $3=$

d) $10+1=11$

Half of $10=$
Half of 1 =
Half of $11=$
e) $6+1=7$

Half of $6=$
Half of $1=$
Half of $7=$

f) | 12 | $+1=13$ |
| ---: | :--- |
|  | Half of $12=$ |
|  | Half of $1=$ |
|  | Half of $13=$ |

## Section 3

1. Half of $13=$
2. Half of $21=$
3. Half of $19=$
4. Half of $15=$
5. Half of $17=$
6. Half of $25=$
7. Half of $101=$
8. Half of $21=$
9. Penny and Jackie split $£ 25$ evenly between them. How much do they each receive?
10. A puppy spends exactly half of its week sleeping. By the end of the week, how many days has the puppy slept for?

## Mental Maths - Large Numbers

## Section 1

1. $800 \times 200=160,000$ 5. $20 \times 3500=70,000$ 9. $12 \times 800=9,600$
2. $3 \times 110=330$
3. $10 \times 50=500$
4. $50 \times 11=550$
5. $7 \times 500=3,500$
6. $9 \times 11,000=99,000$
7. $400 \times 2,000=800,000$
8. $240 \times 20=4,800$
9. $20 \times 11,000=220,00012.600 \times 110=66,000$

Section 2

1. $400 \div 2=200$
2. $500 \div 5=100$
3. $1,000 \div 2=500$
4. $6,000 \div 2=3,000$
5. $10,000 \div 200=50$
6. $77,000 \div 11=7,000$
7. $1,000 \div 2=500$
8. $2,500 \div 5=500$
9. $3,300 \div 11=300$
10. $200 \div 2=100$

## Section 3

1. $480 \div 80=6$
2. $810 \div 90=9$
3. $1,800 \div 300=6$
4. $140,000 \div 700=200$
5. $40,000 \div 100=400$
6. $2,400 \div 8=300$
7. $240 \div 6=40$
8. $300 \div 60=5$
9. $16,000 \div 200=80$
10. $1,600 \div 20=80$
11. $210 \div 3=70$
12. $480 \div 60=8$

## Section 4

1. $3,000 \div 6=500$
2. $270 \div 30=9$
3. $700 \div 70=10$
4. $4,800 \div 800=6$
5. $3,000 \div 500=b$
6. $200 \div 2=100$
7. $200 \div 100=2$
8. $7,200 \div 90=80$
9. $900 \div 3=300$
10. $1,500 \div 500=3$
11. $600 \div 120=5$
12. $21,000 \div 30=700$

Section 5

1. $600 \times \underset{-6}{ }=3,600$
2. $600 \times$ $700=420,000$
3. $60 \times 9=540$
4. $20 \times \_=160$
5. $2 \times 30=60$
6. 100 $\times 40=4,000$
7. 30 $\times 700=21,000$
8. $600 \times 80=48,000$
9. $\qquad$ 3 $\times 400=1,200$
10. $300 \times 600=180,000$
11. $8 \times 30=240$
12. $300 \times 400=120,000$

[^0]$$
4
$$
.

## Negative Numbers

## Section 1

Write the number indicated by each arrow below.
1.

2.

3.


## Section 2

Write the following numbers in ascending order.

1. $-1,20,3,-15$

$$
\begin{equation*}
-15 \tag{20}
\end{equation*}
$$

$\qquad$
$\qquad$
2. $19,-7,17,-15$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
3. $-17,13,8,-13$
$-17$
$-13$ $\qquad$ 13
4. $-12,-13,-8,-4$

$\qquad$
$\qquad$ $-4$

## Ordering Numbers

Rewrite the numbers below in ascending order.

1. 101,472
10,826
101,499
100,990


100,990


101,499
2. 3,298

3,597
3,571
2,626


3,298


3,597
3. 20,050

19,999
20,899
21,000

4. 5,132

6,000 6,030
5,969


## Place Value 1

## Section 1

Circle the number closest in value to the number in bold on the left.

| a) | 80 | 90 | 77 | 69 | 85 | 70 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| b) | 69 | 56 | 89 | 52 | 79 | 85 |
| c) | 55 | 41 | 35 | 70 | 61 | 48 |
| d) | 66 | 81 | 59 | 49 | 57 | 78 |

## Section 2

Write the following numbers as sums in which the thousands, hundreds, tens and units are separated.
E.g. $4342=4000+300+40+2$

1. $1287=1000+200+\quad 80+7$
2. $8692=8000+600+$ $\qquad$ $90+$ $\qquad$
3. $2006=2000+$ $\qquad$
4. $7357=7000+300$ $+$ $\qquad$ $+$ $\qquad$

Section 3
Write these numbers in words.

1. 5,947 Five thousand nine hundred and forty-seven
2. 22,103 Tuenty-two thousand one hundred and three
3. 204 Two hundred and four
4. 390,823 Three hundred and ninety thousand eight hundred
5. 630

6. 8,050


Section 4
Write these numbers in digits.

1. Seven hundred and six
2. One thousand and ninety
3. Forty-two thousand, seven hundred and sixty
4. Nine thousand and eighty-two
5. Four hundred thousand, three hundred and seventy-two
6. Five hundred and ten thousand, two hundred
7. One million, five hundred thousand
8. Five hundred and nineteen


Section 5

Answer the questions below.

1. Rearrange the digits 4,6 and 2 to get as close as possible to 308 . $\qquad$ 264
2. Rearrange the digits 9,7 and 8 to get as close as possible to 922 .

3. Rearrange the digits 1,4 and 6 to get as close as possible to 572 . $\qquad$ 614
4. Rearrange the digits 9,7 and 6 to get as close as possible to 812 .


## Section 6

For each set of digits below, subtract the smallest number you can form from the largest number you can form. Write your final answer below.

1. 439

2. 185

3. 572


## Prime Numbers, Factors and Multiples

1. Look at the numbers below. Circle the prime numbers in red, circle the even numbers in blue and circle the multiples of three in green. Some shapes may need more than one circle around them.




29

2. Write a number that is a multiple of both 3 and 4 .
 Any multiple
of

3. Circle the numbers below that are multiples of both 2 and 5 .

$$
35
$$

18
40
450
310

902
4. Circle the number below that is not a factor of 110.

$$
11
$$

5. Write the first five square numbers below.


Money
Section 1
Write the following money amounts in digits.


Section 2
Add the amounts below:

1. $20 p+£ 2+1 p=$
2. $£ 1+50 p+50 p+20 p=$
3. $£ 5+5 \mathrm{p}=$
4. $£ 2+£ 10+10 p+20 p+2 p=$
5. $5 p+2 p+£ 10=$
6. $£ 20+50 p+20 p+50 p+5 p+50 p=$


Write the simplest way of forming each of the following amounts with notes and coins.

1. $51.80 \frac{\mathrm{ElO}}{} \mathrm{fl}+50 p+20 p+10 p$
2. $: 1249 \frac{£ 10+£ 2+20 p+20 p+5 p+2 p+2 p ~}{f 5+f 1+50}$

3. $50.17-10 p+5 p+2 p$

Section 3
Put the following amounts in ascending order.

1. $£ 3, £ 5.20,35$ p, $£ 25, £ 5$

$$
35 p
$$

$$
\pm 3 \quad \pm 5 \quad \pm 5 \cdot 20
$$

$$
f 5.20 \quad \underline{£ 25}=£ 38.55
$$

2. $£ 20,20$ p, 200 p, $£ 2.20$

$$
\frac{20 p}{} 200 p \quad \text { t2.20 } \quad \pm 20
$$

$$
\pm 20=£ 24.40
$$

3. $£ 600,600 p, 60 p, £ 660$

$$
60 p
$$

$$
600 p
$$

$$
£ 600
$$

$$
6660
$$

$$
=£ 1266.60
$$

4. $£ 5,5 \mathrm{p}, 50 \mathrm{p}, £ 500, £ 5.50$

$$
5 p
$$

$$
\nsucceq 5
$$

Section 4
Put the following amounts in ascending order.

1. $£ 3.50, £ 0.35, £ 35, £ 35.50, £ 35.05$
$\notin 0.35 \quad £ 3-50$

$$
\begin{aligned}
& £ 10 \\
& 54.50
\end{aligned}
$$

$$
f 10 \cdot 10
$$

$$
t_{100}=f 122 \cdot 20
$$



$$
E 45.05=E 99.05
$$

4. $62 p, £ 60.20, £ 6.02,620 p, £ 62$

$$
62 p+56.02
$$

5. $£ 20.20, £ 2,20 p, £ 22, £ 2.20$

$$
20 p \pm 2 \quad \pm 2 \cdot 20 \pm 20 \cdot 20 \quad \pm 22= \pm 46 \cdot 60
$$

Extension: Add together the amounts on each line and write the totals above.

$$
\begin{aligned}
& \text { 3. } £ 4.05, £ 45,45 \text { p, } £ 4.50, £ 45.05
\end{aligned}
$$

## Section 5

1. Dora has a $£ 5$ note in her purse and a 2 p coin. How much money does she have altogether?
2. How much money do I have in my purse if I have:
a) Two 50p coins, three 10p coins and seven 2 p coins. £1.44
b) Six 20 p coins, five 10 p coins and five 1 p coins. El. 75
c) Three $£ 2$ coins, four pennies, two 50 p coins and a ten pence coin. $£ 7 \cdot 14$
3. Ralph wants to buy a magazine that costs $£ 3.85$. If he has a $£ 2$ coin, a 50 p coin and a 2 p coin, how much more money does he need to be able to buy the magazine? $£ 1.33$
4. Three packs of football cards cost $£ 4.20$ altogether. How much does one pack cost? $\mathrm{f} 1 \cdot 40$
5. What is one quarter of $£ 10$ ? $£ 2.50$
6. Donna buys two birthday cards for her friends. One card costs $£ 2.20$, the other costs $£ 1.75$. How much change will she get from $£ 5.00$ ? £ 1.05
7. Camille buys a bottle of juice for 96 p and two sandwiches costing $£ 1.80$ each. How much change will she get from $£ 5$ ? $44 P$
8. Stamps cost 59 p each. How much would 10 stamps cost? $£ 5.90$
9. Chocolate bars cost $£ 1.25$ each. If Jonathan buys 3 chocolate bars plus a magazine for $£ 3.95$, how much change will he get from $£ 10$ ? $£ 2 \cdot 30$
10. Bus tickets cost $£ 2.20$ for adults and half that price for children. How much would it cost for two adults and a child to go on the bus? £ 5.50
11. Which coins would you need to make the following amounts with as few coins as possible?
a)

b)

c)

d)

e) $£ 11.25$


Arithmetic
Subtraction - No Borrowing
$13934-3404=2$
2 4584-2541 =
3
$8274-3233=$


Subtraction - Borrowing Tens or Hundreds

1


2


3


4


5


6


7


8


9


10


Subtraction - Borrowing from Both Columns

1


4


7


10


13


16


14

17

246-97= 6


503-224 = 9


237-69 =
12


3


546-79 =


460-295 =


523-275 =


800-759 =


Column Multiplication - Carrying

1


4


7


10


13


14


15


16


17


18


## Column Multiplication - No Carrying

1. $12 \times 24=288$

2. $14 \times 12=168$

3. $31 \times 23=7 / 3$

4. $44 \times 21=924$

5. $20 \times 13=260$

6. $40 \times 11=440$


Column Multiplication - Carrying

1. $81 \times 12=972$

2. $65 \times 21=1365$

3. $48 \times 22=1056$

4. $42 \times 22=924$

5. $31 \times 52=/ 6 / 2$

6. $96 \times 55=5280$


Division Introduction - Carrying the First Digit

1. $360 \div 3=$

| 1120 |
| ---: | ---: |
| 31361 |

4. $155 \div 5=$

5. $162 \div 2=$

6. $1406 \div 2=$

7. $4555 \div 5=$
$5 \begin{array}{r}0911 \\ 54555\end{array}$
8. $1260 \div 6=$

9. $2550 \div 5=$

10. $350 \div 5=$

11. $606 \div 3=$

| 2012 |
| :--- | :--- | :--- |
| 316016 |

* $6 . \quad 183 \div 3$


9. $208 \div 4=$

10. $1539 \div 3=$
$\frac{0513}{31.539}$
11. $3505 \div 5=$

51 | 1301 |
| :--- |
| 5505 |

The following answers will have remainders.
16. $1894 \div 9=$

17. $2485 \div 4=$

18. $1057 \div 5=$


Hundreds Division - Carrying with No Remainders

1. $516 \div 3=$

2. $225 \div 5=$

3. $147 \div 3=$

4. $728 \div 4=$

5. $812 \div 4=$

6. $260 \div 5=$

7. $136 \div 2=$

| 0 | 6 | 8 |
| :--- | :--- | :--- |
| $2 \mid 1$ | 1316 |  |

6. $520 \div 5=$

7. $978 \div 3=$


Thousands Division - Carrying with No Remainders

1. $8215 \div 5=$

2. $6108 \div 2=$

3. $6144 \div 2=$

$\frac{3072}{2161144}$
4. $1490 \div 5=$

5. $5710 \div 2=$

2855
$2 \sqrt{517110}$
6. $9750 \div 3=$
319250
7. $1701 \div 3=$

8. $7862 \div 2=$

9. $9260 \div 5=$


Arithmetic Review

1
$4 \quad 5110-3777=$


5
6011-3892 =

$46 \times 22=$


8

3
$1001-87=$


6
$1101-174=$


7
$78 \times 28=$

10. $5432 \div 5=$
11. $5451 \div 2=$
$\frac{1086 r^{2}}{5 \mid 54^{4} 3^{3} 2} \quad \frac{2725 r 1}{2 \mid 5^{\prime} 45^{\prime} 1}$
13. $5267 \div 2=$

| $2633 r \mid$ |
| :--- |
| 25267 |

14. $7996 \div 3=$
$2665 r 1$
317191916
15. $1757 \div 5=$
$\frac{0351 r^{2}}{5117^{2} 57}$
16. $9289 \div 3=$
17. $6553 \div 2=$
18. $8471 \div 5=$
$3096 r \mid$
$3192^{2} 8^{\prime} 9$


## Arithmetic Review

Section 1 -Addition

1. $902+18=920$
2. $634+438=1072$
3. $752+670=1422$
4. $743+465=1208$
5. $9257+61=9318$
6. $6079+4080=10,159$

Section 2 - Subtraction

1. $500-289=2 \mid 1$
2. $900-729=171$
3. $600-399=201$
4. $200-56=144$
5. $400-130=270$
6. $700-452=248$

Section 3 - Subtraction

1. $184-75=109$
2. $516-265=25$ ।
3. $2103-58=2045$
4. $8236-2165=6071$
5. $1031-43=988$
6. $5446-3349=2097$

Section 4 - Multiplication

1. $16 \times 35=560$
2. $4 \times 148=592$
3. $825 \times 5=4125$
4. $90 \times 23=2070$
5. $67 \times 14=938$
6. $500 \times 24=12,000$

Section 5 - Division

1. $807 \div 2=403 r 1$
2. $730 \div 3=243 r 1$
3. $601 \div 3=200 \sim 1$
4. $1842 \div 3=614$
5. $708 \div 5=14 \operatorname{lr} 3$
6. $227 \div 5=45 r 2$

Section 6 - Mixed

1. $82 \times 54=4428$
2. $4521+322=4843$
3. $638 \div 2=319$
4. $100 \div 5=20$
5. $681+129=810$
6. $59 \times 22=1298$

Section 7 - Mixed

1. $935+346=1281$
2. $1059 \div 2=529 r 1$
3. $862+718=1580$
4. $982+726=1708$
5. $57 \times 31=1767$
6. $71 \times 12=852$

Number Facts
Section 1

1. If $12 \times 12=144$, what is $12 \times 13$ ? $\mid 56$
2. If $32 \times 10=320$, what is $32 \times 9$ ? 288
3. $18 \times 10=180$. What is $18 \times 11 ? 198$
4. If $16 \times 8=128$, what is $16 \times 80$ ? 1,280
5. $99 \times 10=990$. What is $99 \times 9 ? 89$
6. $14 \times 95=1,330$. What is $140 \times 95$ ? 13,300
7. 8 lots of 35 make 280 . What is $35 \times 9$ ? 315
8. $12 \times 85=1,020$. What is $24 \times 85$ ? 2,040
9. If $42 \times 14=588$, what is $42 \times 140$ ? 5,880
10. $24 \times 77=1,848$. What is $770 \times 24$ ? 18,480

Section 2

Fill in the blanks below and answer the questions that follow.

1. $32 \times 100=3,200$. What is $32 \times 101$ ? 3,232
2. $45 \times 2=\frac{90}{4}$ and $45 \times 10=\frac{450}{40}$. $48 \times 10=480$. What is $48 \times 5$ ? 240
3. $220 \div 2=$ $\qquad$ What is 220 divided by $4 ? 55$
4. Ten lots of 86 make $\qquad$ What is $86 \times 5$ ? 430
5. $1,400 \div 100=$ $\qquad$ What is $1,400 \div 200$ ?
6. If $8 \times 100=$ $\qquad$ , what is $8 \times 25 ? \quad 200$
7. $10 \times 72=\quad 720$. What is $72 \times 11$ ? 792
8. If $67 \times 10=$ $\qquad$ , what is $67 \times 9$ ? 603
9. If $38 \times 100=3,800$, what is $38 \times 50$ ? 1,900

## Number Lines

Write the number indicated by each arrow below.

1.

78

2.


3.

4. 200
$1,500 \quad 2^{4}, 000$
100,000
200,000

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

5. 



## Rounding

Round the following numbers to the nearest ten.

1. 87
$87=90$
2. $42=40$
3. $98=100$
4. $209=2 / 0$
5. $808=810$
6. $212=210$
7. $8,174=8170$
8. $11,128=11,130$
9. $14,606=14,610$
10. $6,132=6,130$
11. 7,522

7520
12. $675=680$

Round the following numbers to the nearest hundred.

1. $718=700$
2. $177=200$
3. 250 $=300$
4. 971
$=1.000$
5. 716

6. 59
$=$
7. $6,189=6200$
8. $11,793=1 / 800$
9. $33,350=33400$
10. 1,845
11. 283
12. 6,374 $\qquad$ 1800

Round the following numbers to the nearest thousand.

1. $99,711=100,000$
2. $180,876=18 /, 000$
3. $94,200=94,000$
4. $4,561=5,000$
5. $1,969=2,000$
6. $342,374=342,000$
7. $340,008=349000$
8. 78,992
9. $905,866=906,000$
10. 397
11. $375,880=376,000$
12. 8,284 $=8,000$
13. $827,657=828,000$
14. $1,973=2,000$
15. $595=1,000$
16. $8,274=8,000$

## Halfway Between

## Section 1

Write the missing numbers indicated by the arrows below.
a)

d)

e)

e) 10

b) 27

f)


## Section 2

1. Which number is halfway between 3 and 4 ?

## 3.5

2. Which number is halfway between 8 and 18 ?
3. Which number is halfway between 100 and 101?
4. Which number is halfway between 200 and 240 ?
5. Which number is halfway between 0 and 5 ? 2.5
6. Which number is halfway between 50 and 100? 75

## Section 3

1. Which number is halfway between 35 and 41?

## 38

2. Which number is halfway between 5 and 10 ?

$$
7.5
$$

3. Which number is halfway between 25 and 30 ?
4. Which number is halfway between 50 and 75 ?

Missing Numbers
Section 1

1. $1904-989=915$. Write two more number sentences involving these numbers.
$\qquad$ $1904-915=989$ and $\qquad$ $989+915=1904$
2. $38 \times 4=152$. Write two more number sentences involving these numbers.

$$
152 \div 4=38
$$

$\qquad$ and $\qquad$ $152 \div 38=4$
3. $360 \div 3=120$. Write two more number sentences involving these numbers.
$\qquad$
$120 \times 3=360$ and $\qquad$ $360 \div 120=3$
4. $38+38+38=114$. Write two more number sentences involving these numbers.
$\qquad$
$38 \times 3=114$ and $\qquad$ $114 \div 3=38$

Section 2
Complete the calculations below by writing in the missing numbers.
1.

$$
80-50=30
$$

$$
42-10=32
$$

$$
48-25=23
$$

7. $667+200=867$
8. $174+140=314$

9. $33+67=100$
10. $87-60=27$
11. $65-43=22$
12. $184-150=34$
13. $130+115=245$
14. $195+300=495$
15. $167+600=767$

Section 3

1. $240 \div 10=24$
2. $300 \div 5=60$
3. $100 \div 4=25$
4. $35 \div 5=7$
5. $150 \div 50=3$
6. $260 \div 130=2$

Section 4

1. $82-32=50$
2. $296-256=40$
3. $162-117=45$
4. $860-204=656$
5. 

$189-119=70$
6. $286-200=86$

Each number in the pyramid is the sum of the two numbers above. Use this rule to fill in the missing numbers in each pyramid.


## Working Backwards

## Section 1

1. 


4. I'm thinking of a number. When I add 3 to this number the answer is 42 . What was my original number? $+3 \rightarrow 42$
5. When I multiply a number by 10 , the answer is 600 . What is the number? 60

$$
x 10 \rightarrow 600
$$

6. When I subtract 10 from a number, the answer is 73 . What is the number? $\& 3$

$$
-10 \rightarrow 73
$$

7. I'm thinking of a number. I subtract 200 and my answer is 560 . What was the original number? $\square$

8. Three times my number is 48 . What is my number?

## Section 2

1. I am thinking of a number. I multiply my number by 2 and the answer is 56 . What was my original number? $\times 2 \rightarrow 56 \quad 28$
2. When I divide a number by 10 I get the answer 7 . What is the number? 70

$$
\div 10 \rightarrow 7
$$

3. I get the answer 70 when I add 45 to a number. What is the number? 25

$$
+45 \rightarrow 70
$$

4. When I subtract 11 from a number the answer is 120 . What is this number?
5. I'm thinking of a number. I subtract 100 from my number and get 250 . What number did Istart with? $-100 \rightarrow 250350$
6. 10 children eat 2 slices of pizza each. There are 6 slices of pizza left over. How many slices of pizza were there to start with?

$$
(10 \times 2)+6=26
$$

1. 


2.
3.

4.


## Section 3

1. I'm thinking of a number. I divide the number by 5 and get the answer 85 . What was my original number? $\div 5 \rightarrow 8517$
2. The children at Green Street Primary School complete their dinosaur projects in groups. Their teacher receives 5 projects. There are 20 children in the class. How big were the project groups? 4
3. A bottle of lemonade can fill 11 cups. There are 44 people coming to a party. How many bottles will I need if I want everyone to have two cups of lemonade? 4
4. 5 children share 37 sweets. Each child eats the same number of sweets. There are 7 sweets left over. How many sweets did each child eat?
5. Kofi buys 12 boxes of Christmas baubles. He then buys 3 more individually. He now has 63 baubles. How many baubles were in each box?
6. The children at Valley Primary school get into groups of 4 . There are 3 children left over. There are 27 children in the class. How many groups of children were there? 6
7. Anna paid for an item with a $£ 50$ note and received $£ 12.47$ change. How much did the item cost? $\mathbb{2} 37.53$

## Section 4

Complete the calculations below by writing in the missing numbers.
1.

4. $435 \div 151=3$
2.

5.

3. $3,290 \div 329=10$
6.

7. When a number is multiplied by 5 , the answer is 2,710 . What number did I start with?

$$
\times 5 \rightarrow
$$

$\qquad$
$\square$
$\square$
8. I'm thinking of a number. I divide the number by 3 and add 10 . My answer is 130 .

What is my number?

9. I'm thinking of a number. I double my number and then multiply the answer by 100.

My final answer is 6,400 . What is my number?

## Section 5

1. There are 30 people coming to my party and they need to have 3 cups of cola each. A bottle of cola can fill 9 cups. How many bottles of cola will I need to buy?

2. Kristen is making cupcakes for a party. She makes 3 cupcakes per person plus 6 spares. She has 96 cupcakes in total. How many people are coming to the party?

3. Belinda buys 6 books and pays $£ 42$ in total. If each book is the same price, how much is one book? $\& 7$
a) How much would 4 books cost? $£ 28$
4. Ayesha paid $£ 5$ for 2 m of material. How much does 1 m cost? $£ 2 \cdot 50$
5. How many times can 8 be subtracted from 6,500? \& 12
6. How many times can 11 be subtracted from 3,900 ? 354
7. What must be added to 65 cm to make 25 m ? 24 m 35 cm
8. On Monday, Joy gathered 10 conkers and her grandmother gave her double this amount. On Tuesday, Joy gathered more conkers so that now she has 38 altogether. How many conkers did Joya gather on Tuesday?

$$
10+20+\square=38
$$

## Arithmetic Problems 1

1. Christmas baubles are packed into boxes of up to 10 baubles. If I have 238 baubles, how many boxes will I need?
2. 1 kg of sugar costs $£ 1.28$. What is the cost of 500 g of sugar? 64 p or $\mathrm{EO} \cdot 64$
3. Matchboxes can hold up to 50 matches at a time. If I have 5500 matches, what is the minimum number of boxes I will need?
4. How many times can I subtract 8 from 376? 47
5. Anna buys 3 bus tickets costing 85 p each. How much does she pay? $£ 2 \cdot 55$
6. 432 apples are packed equally into 6 boxes. How many apples are in each box? 72
7. 75 children take part in a quiz. There are 5 children in each team. How many teams are there? 15
8. Farmer Joe has 73 eggs. He packs them into cartons of 10 . How many eggs will Farmer Joe have leftover when he has filled as many cartons as possible?
9. Jason is carrying a cube and two balls of equal weight. The total weight of the objects is 5 kg . If the cube weighs 3 kg , how much does each ball weigh? 1 kg
10. How many nines can fit into 450 ? $S \bigcirc$
11. A teacher has 80 sweets. 8 children take 3 sweets each. How many sweets does the teacher have left? 56
12. Rahil, Nikhil and Armaan are weighing themselves. Rahil and Nikhil are twins and weigh exactly the same amount. Armaan weighs 63 kg . Altogether, the boys weigh 227 kg . How much does Nikhil weigh? 82 kg

$$
E 48
$$

13. In a raffle, 79 single tickets are sold for 50p each. The organisers also sell 24 packs of tickets for $£ 2$ per pack. How much money does the raffle make in total? £ 87.50
14. What is 45 minutes later than $9: 45$ adm.? $10: 30 \mathrm{a} \cdot \mathrm{m}$.
15. Five elephants walk 195 kilometres a day for four days. What is the total distance they have walked? 3,900 km
16. Troy has savings of $£ 10,000$. He buys a horse for $£ 2,786$. How much does Troy have left? $\& 7,214$

## Difference Between Questions

## Section 1

1. The difference between two numbers is 5 . The larger number is 16 . What is the smaller number?
2. The difference between two numbers is 10 . The larger number is 43 . What is the smaller number? 33
3. The difference between two numbers is 17 . The smaller number is 35 . What is the larger number? 52

## Section 2

1. Kyle and Zoe's ages add up to 44 . Zoe is 8 years older than Kyle. How old is each person?

$$
k=18, z=26
$$

2. Meena and Maxine's ages add up to 29. Maxine is 9 years older than Pena. How old will Meena be next year?
3. Hope is 9 years older than Reese. Their ages add up to 37 . How old is Hope?
4. Susan and Paul's ages add up to 36 . Susan is 12 years younger than Paul. How old is each person? $P=24, S=12$
5. Luna and Jacqui share $£ 40$ between them. Luna receives $£ 6$ more than Jacqui. How much do they each receive? $L=E 23, J=E 17$
6. Raoul and Simon share $£ 45$ between them. Raoul receives $£ 1$ more than Simon. How much do they each receive? $S=E 22, R=E 23$

## Section 3

1. Amos is five years younger than his sister, Faith. Their ages add up to 27 . How old will Faith be next year?
2. Santiago spends $£ 380$ on a laptop and a television. The TV costs $£ 120$ more than the laptop. How much does each item cost? $L=E 130, T . V .=E 250$
3. Pablo and Dina share $£ 34$ between them. Pablo receives $£ 4$ more than Dina. How much do they each receive?
4. In two years' time, Julie and Luke's ages will add up to 44 . Luke is 12 years older than Julie. How old is Luke now?
5. Together, a bag of flour and a bag of sugar weigh 840 g . The bag of flour is 200 g heavier than the bag of sugar. How much does the bag of sugar weigh?


## Time Differences 1

Complete the digital clocks below.
1.

6.
7.


50 minutes earlier

8.


25 minutes earlier

9.

three-quarters of an

$$
7: 40
$$

55 minutes earlier


## Time Differences 2

Calculate how much time has elapsed.

| Start Time | Elapsed Time | End Time |
| :---: | :---: | :---: |
| 12:00 p.m. | Shers 20 mins | 8:20 p.m. |
| 3:15 a.m. | 2 hrs 30 mins | 5:45 a.m. |
| 2:25 a.m. | $\text { Shrs } 10 \text { mins }$ | 7:35 a.m. |
| 1:50 p.m. | 2 hurs 5 mins | 3:55 p.m. |
| 11:20 a.m. | 2 hours | 1:20 pm |
| 4:10 p.m. | 2 hours and 20 minutes | $6: 30 \mathrm{pm}$ |
| 9:50 p.m. | 55 minutes | $10: 45 \mathrm{pm}$ |
| 12:45 p.m. | 5 hours and 15 minutes | 0 pm |
| 3:25 p.m. | 1 hour and 30 minutes | $4: 55 \mathrm{dm}$ |

Complete the table below.


## Time Differences 3

Find the differences between the times listed below.

| Start Time | End Time | Elapsed Time |
| :---: | :---: | :---: |
|  |  | 2 mours and 10 minutes |

## Time Differences 4

Find the differences between the times listed below.

| Start Time | End Time | Elapsed Time |
| :---: | :---: | :---: |
| $4: 40$ | $5: 35$ | 55 minutes |
| $11: 50$ |  | 1 howr and 55 minutes |
|  |  | 3 hours and 25 ininutes |
| $8: 25$ | $3: 15$ | 6 hours and 50 minutes |
| $8: 55$ | $9: 40$ | 45 minutes |
|  |  | 5 hous and 5 minutes |
| $12: 15$ | $2: 10$ | 1 hour 55 mins |

## Time Differences 5

## Section 1

Find the differences between the times listed below.

| Start Time | End Time | Elapsed Time |
| :---: | :---: | :---: |
| 10:30 p.m. | 11:15 p.m. | 45 mins |
| 12:15 p.m. | 1:10 p.m. | 55 mins |
| 4:55 a.m. | 7:35 a.m. | $2 h r s 40$ mins |
| 8:10 a.m. | 3:15 p.m. | 7 hrs 5 mmins |
| 5:20 a.m. | 10:35 a.m. | Shrs 15 mins |
| 6:45p.m. | 10:10 p.m. | $\text { 3hrs } 25 \text { mins }$ |
| 9:00 a.m. | 12:50 p.m. | 3hrs 50 mins |
| 11:10 p.m. | 2:05 a.m. | $2 \text { hrs } 55 \text { mins }$ |
| 4:25 p.m. | 10:35 p.m. | 6hrs 10 mins |
| 8:55 p.m. | 3:05 a.m. | cohrs 10 mins |
| 1:50 p.m. | 12:20 a.m. | 10 hrs 30 mins |
| 3:45 p.m. | 8:15 p.m. | $4 \text { hrs } 30 \text { mins }$ |

## Section 2

1. Calculate 2.5 hours later than 10:30 a.m. Jom
2. The school day at Blue Hill Primary School starts at 8:55 a.m. and finishes 6 hours and 25 minutes later. At what time does the school day finish? $15: 20$
3. Thomas starts his homework at $4: 15 \mathrm{p} . \mathrm{m}$. and finishes at quarter to six. How long does he spend on hishomework? 90 mins or $1 \frac{1}{2} \mathrm{hrs}$
4. Diya goes to bed at $9: 30$ p.m. and wakes up at 7:15 a.m. For how long was she asleep? $9 h \mathrm{~s}^{2} 45 \mathrm{mins}$
5. Yuvan spends 3 hours and 40 minutes playing at his friend's house. If Yuvan leaves at 5 p.m., at what time did he arrive?

$$
1: 20 p m: 13: 20
$$

## 24-Hour Time

## Section 1

Re-write the following times in 24-hour time.

1. $5: 36$ p.m. $\frac{17: 36}{19: 12}$
2. 7:12 p.m. $\frac{13: 05}{\text { 3. } 1: 05 \text { p.m. } 13: 05}$
3. 8:18 p.m. $\qquad$ 7. $4: 17 \mathrm{p} . \mathrm{m}$. $\qquad$
4. 7:50 p.m.
5. $12: 51$ p.m. $\qquad$

## Section 2

Re-write the following times in 24-hour time.

1. $6: 56 \mathrm{p} . \mathrm{m}$. $\qquad$ 4. 11:29 p.m. $23: 29$
2. $10: 48$ p.m. $\qquad$
3. $2: 56 \mathrm{p} . \mathrm{m}$. $\qquad$ 5. 5:40 p.m. $\qquad$ 8. $4: 57 \mathrm{p} . \mathrm{m}$. $\qquad$
4. $8: 59 \mathrm{p} . \mathrm{m}$. $\qquad$ 6. $3: 41 \mathrm{p} . \mathrm{m}$. $\qquad$ 9. 1:44 p.m.


## Section 3

Convert the following times into 12-hour form.

1. $16: 51 \mathrm{4}: 51 \mathrm{pm}$
2. $12: 49 \mathrm{l}-149 \mathrm{pm}$
3. $23: 14 \mathrm{l}: 14 \mathrm{pm}$
4. 18:29 6:29 pm
5. $19: 19 \quad 7: 19 \mathrm{pm}$
6. $15: 52$

7. $20: 10$


## Section 4

Write the following times in 24-hour time.

1. 38 minutes past 3 o'clock in the afternoon. $\qquad$
2. 20 minutes past 10 o'clock in the morning.
3. 19 minutes past 9 o'clock at night.
4. 14 minutes past 11 o'clock at night.
5. 51 minutes past 2 o'clock in the afternoon.
6. 25 minutes past 3 o'clock in the morning.
7. 11 minutes past 12 o'clock in the afternoon.

8. 28 minutes past midnight.
9. 47 minutes past 5 o'clock in the afternoon.
10. 55 minutes past 7 o'clock in the morning.
$\qquad$ $17: 47$

## Dates

Use the three children's birthdays listed below to answer the questions that follow.
Heidi
08/11/08
Erin
21/09/09
Evan
31/07/08

1. Who is the eldest child? Evan
2. Who is the youngest?
3. Which month was Erin born in?

4. Which month was Heidi born in?


Use the five children's birthdays listed below to answer the questions that follow.

| Ahmed | Dominic | Daniel |
| :---: | :---: | :---: |
| 03/09/06 | $05 / 04 / 05$ | $02 / 01 / 06$ |


| Nell | Lily |
| :---: | :---: |
| $08 / 07 / 05$ | $31 / 07 / 06$ |

1. Who is the eldest child?
2. Who is the youngest?
3. Which month was Dominic born in?

4. In which year was Nell born?
5. Which month was Ahmed born in?


## Imperial and Metric Measures

Sort the units of measurement into the right columns according to what they measure.

| inches | litres | pints |
| :---: | :---: | :---: |
| kilograms | grams | miles |
| fluid ounces | gallons | feet |
| centimetres | tonnes | millilitres |
| metres | millimetres | ounces |


| Capacity | Weight | Length |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

## Length Introduction 1

Fill in the gaps below.

1. $3 \mathrm{~m}=$
 cm
2. $2 \mathrm{~m}=$ $\qquad$ cm
3. $35 \mathrm{~m}=$ $\qquad$ cm
4. $11 \mathrm{~m}=$ $\qquad$ cm
5. $6 \mathrm{~m}=$ $\qquad$ cm
6. $700 \mathrm{~cm}=$ $\qquad$ m
7. $1600 \mathrm{~cm}=$ $\qquad$ m
8. $36,500 \mathrm{~cm}=$ 365 m
9. $1,300 \mathrm{~cm}=$ $\qquad$ m
10. $9,000 \mathrm{~cm}=$ $\qquad$ m

## Length Introduction 2

Fill in the gaps below.

1. $2,000 \mathrm{~m}=$ $\qquad$ km
2. $45 \mathrm{~km}=45 \mathrm{Q} 0 \mathrm{~m}$
3. $15,000 \mathrm{~m}=$ $\qquad$ km
4. $5 \mathrm{~km}=500 \mathrm{~m}$ m
5. $30,000 \mathrm{~m}=$ $\qquad$ km
6. $6,000 \mathrm{~m}=$
 km
7. $100,000 \mathrm{~m}=$ $\qquad$ km
8. $8,000 \mathrm{~m}=$ $\qquad$ km
9. $200 \mathrm{~km}=200200 \mathrm{~m}$ m
10. $18 \mathrm{~km}=\mathrm{S}_{40} \mathrm{~m}$
11. $225 \mathrm{~km}=25$,90. m
12. $19 \mathrm{~km}=$ $\qquad$

## Length Introduction 3

Fill in the gaps below.

1. $30 \mathrm{~cm}=300 \mathrm{~mm}$
2. $5 \mathrm{~cm}=$ $\qquad$ mm
3. $19 \mathrm{~cm}=$
 mm
4. $7 \mathrm{~cm}=$
 mm
5. $\quad 180 \mathrm{~cm}=1800 \mathrm{~mm}$

## Weight Introduction

Fill in the gaps below.

1. $5,000 \mathrm{~g}=5 \mathrm{~kg}$
2. $17,000 \mathrm{~g}=17 \mathrm{~kg}$
3. $9,000 \mathrm{~g}=$ $\qquad$ kg
4. $28,000 \mathrm{~g}=$ $\qquad$ kg
5. $1,000 \mathrm{~g}=$ $\qquad$ kg
6. $11 \mathrm{~kg}=1,000 \mathrm{~g}$
7. $16 \mathrm{~kg}=6,000 \mathrm{~g}$
8. $8 \mathrm{~kg}=8,000 \mathrm{~g}$
9. $20 \mathrm{~kg}=20,000 \mathrm{~g}$
10. $7 \mathrm{~kg}=7 \mathrm{Z} \bigcirc \mathrm{O} \mathrm{g}$
11. $10 \mathrm{~mm}=\quad \mathrm{cm}$
12. $250 \mathrm{~mm}=25 \mathrm{~cm}$ cm
13. $300 \mathrm{~mm}=$ $\qquad$ cm
14. $7,500 \mathrm{~mm}=750 \quad \mathrm{~cm}$
15. $960 \mathrm{~mm}=$ $\qquad$ cm

Fill in the gaps below.
Volume Introduction

1. $3 \mathrm{~L}=30 \mathrm{Og} \mathrm{kml}$
2. $20 \mathrm{~L}=20,000 \mathrm{ml}$
3. $48 \mathrm{~L}=48,000$
4. $10 \mathrm{~L}=10,000$
5. $6 \mathrm{~L}=6,000$

Volume - Decimals

1. $7.5 \mathrm{~L}=7500 \mathrm{ml}$
2. $6.25 \mathrm{~L}=6,250 \mathrm{ml}$
3. $10.8 \mathrm{~L}=10,800 \mathrm{ml}$
4. $5 \mathrm{~L}=50-00 \mathrm{ml}$
5. $1.6 \mathrm{~L}=6000 \mathrm{ml}$
6. $30.35 \mathrm{~L}=30,350 \mathrm{ml}$

Weight - Decimals

1. $20,000 \mathrm{~g}=2.0 \mathrm{~kg}$
2. $3,400 \mathrm{~g}=$

3. $5,800 \mathrm{~g}=$ $\qquad$ 5.8 kg
4. $17,700 \mathrm{~g}=$ $\square$ kg
5. $9,100 \mathrm{~g}=$ $\qquad$ 9.1 kg
6. $50,900 \mathrm{~g}=50.9 \mathrm{~kg}$
7. $4,000 \mathrm{ml}=$ $\qquad$
8. $35,000 \mathrm{ml}=\underline{35 \mathrm{~L}}$
9. $9,000 \mathrm{ml}=$ $\qquad$
10. $12,000 \mathrm{ml}=12 \mathrm{~L}$
11. $2,000 \mathrm{ml}=$ $\qquad$ $2 L$
12. $7,100 \mathrm{ml}=7 \mathrm{~L}$ L
13. $2,500 \mathrm{ml}=2.5 \mathrm{~L}$
14. $6,420 \mathrm{ml}=$ 0.421
15. $22,600 \mathrm{ml}=22 \cdot 6 \mathrm{~L}$
16. $17,050 \mathrm{ml}=\boxed{2}, 6 \mathrm{~L}$
17. $50,150 \mathrm{ml}=50.15 \mathrm{~L}$
18. $50.4 \mathrm{~kg}=50,40 \mathrm{~g}$
19. $8.75 \mathrm{~kg}=8750 \mathrm{~g}$
20. $9.9 \mathrm{~kg}=$ $\qquad$
21. $6.5 \mathrm{~kg}=6,5.00 \mathrm{~g}$
22. $70.8 \mathrm{~kg}=$ $=20,800 \mathrm{~g}$
23. $8.25 \mathrm{~kg}=$ 8250 g

## Length - Decimals 1

1. $105 \mathrm{~mm}=$
 cm
2. $1,804 \mathrm{~mm}=180,4 \mathrm{~cm}$
3. $2,715 \mathrm{~mm}=27 \mathrm{l} \cdot 5 \mathrm{~cm}$
4. $158 \mathrm{~mm}=$ $\qquad$ cm

Length - Decimals 2

1. $25 \mathrm{~m}=2500 \mathrm{~cm}$
2. $5.8 \mathrm{~m}=$
 cm
3. $1.2 \mathrm{~m}=$ $\qquad$ cm
4. $80 \mathrm{~m}=8000$ cm
5. $4.3 \mathrm{~m}=$ $\qquad$ cm
6. $6.85 \mathrm{~m}=685 \mathrm{c}$ cm
7. $124.6 \mathrm{~cm}=$ $\qquad$ mm
8. $6.2 \mathrm{~cm}=$ $\qquad$ mm
9. $9.5 \mathrm{~cm}=$ $\qquad$ mm
10. $150.5 \mathrm{~cm}=$ $\qquad$ mm
11. $450 \mathrm{~cm}=4.5 \mathrm{~m}$
12. $2,100 \mathrm{~cm}=$ $\qquad$
13. $1280 \mathrm{~cm}=$ $\qquad$ m
14. $130 \mathrm{~cm}=$. m
15. $1,750 \mathrm{~cm}=$ $\qquad$ m
16. $790 \mathrm{~cm}=$ $\qquad$ m

O O C metres $=1$ kilometre $1 / 4$ kilometre $=250 \mathrm{~m}$
$1 / 2$ kilometre $=$ $\qquad$ $3 / 4$ kilometre $=750 \mathrm{~m}$

## Weight - Fractions

,QO grams = 1 kilogram
$1 / 4 \mathrm{~kg}=252 \mathrm{~g}$
$1 / 2 \mathrm{~kg}=500 \mathrm{~g}$
$3 / 4 \mathrm{~kg}=750 \mathrm{~g}$
$1 / 10 \mathrm{~kg}=\underline{\mathrm{O}} \mathrm{g}$

## Section 2

1. Re-write these distances in ascending order:

600 m
a)
0.6km
1.2 m
b)
c)
5.5 km
5.5 km

12 mm
55 km

0.012 km
1.6 cm

$\qquad$
5500 cm
2. Underline the two equal measurements in each row.
a) $45 \mathrm{~km} \quad 4500 \mathrm{~cm} \quad 4.5 \mathrm{~m} \quad 45 \mathrm{~m}$
b) $\quad 990 \mathrm{~km} \quad 9.9 \mathrm{~km} \quad 990 \mathrm{~cm} \quad 9,900 \mathrm{~m}$
3. A laptop weighs 1.8 kg . How much do three laptops weigh in grams?

$$
1.8 \times 3=5.4 \mathrm{~kg}=5400 \mathrm{~g}
$$

## Section 3



1. A jug is filled with 1.2 litres of lemonade. 246 ml of lemonade is poured out. How much lemonade is left in the jug? Write your answer in millilitres. 954 mL
2. A bucket of water can hold 5 L of water. It currently has $3,603 \mathrm{ml}$ of water in it. How much more water can it hold? Write your answer in millilitres.
3. Rupert has 4 bags of sugar weighing 320 g each. How much do the bags weigh altogether? Write your answer in kilograms. 1.2820g
4. A shoelace measures 42 cm . Vanessa cuts off 12 mm . How long is the shoelace now?

Write your answer in mm .408 mm
5. What is the difference between 10 m and 0.5 km ?

6. What is the difference between 2 g and 3 kg ?

## 2998 kg

7. Joanie lays five wooden planks end to end. Each plank is 80 cm long. What is the total length of the planks? Write your answer in metres.
8. Hugo adds 70 ml of juice to a glass that already has $\frac{2}{10}$ litres of juice in it. How much juice is in there now? Write your answer in millilitres.


## Section 4

1. Two curtains have a width of 1 m . What is the width of one curtain in centimetres?

2. What is $2 \frac{2}{10}$ litres in millilitres?


2200 mL
3. A fence is 80 cm wide. There is a 3 m wide wall on the left side of the fence and a 2 m wall on the right side. How far is it from one end of the wall to the other?

5 m 80 cm ?
4. A rug has a perimeter of 6 m . The rug is 1 m wide. What is its length?

Zm
5. A window has a perimeter of 7 m . The window has a height of $1 \frac{1}{2} \mathrm{~m}$. What is its width?
$\qquad$
6. Sophie pours out half of a 3-litre bottle of water. How much does she have left in millilitres?

7. Oscar is 102 cm tall. He is half as tall as his garden fence. What is the height of the fence?

8. A puppy walks 250 m every day for 5 days. How far has the puppy walked at the end of the 5 days? Write your answer in kilometres. 1. 25 Km
9. A tree sapling was 66 mm tall. It is now 3 cm taller. How many millimetres tall is it now? $\qquad$
10. Marion's kitchen scales are broken. They are adding 5 g to each measurement. If Marion's kitchen scales show that she has weighed out 1 kg of flour, how much has she actually weighed in grams?

11. Connie is $13 / 4 \mathrm{~m}$ tall. Lochlan is 150 cm tall. What is the difference in their heights?

$$
25 \mathrm{~cm}
$$

12. Harry has a sunflower that has grown to 70 cm tall. If the sunflower doubles in height over the next few weeks, how tall will it be then? Write your answer in metres.

$$
1.4 \mathrm{~m}
$$

13. Adjoa is 156 cm tall. She wears heeled shoes that make her appear 5 cm taller. How tall will she be with her shoes on? Write your answer in metres.

$$
1.61 \mathrm{~m}
$$

14. What must be added to 389 g to make 2 kg ?

Averages
Section 1

1. Complete the table below by writing the method used to find each type of average.

| Mean | Add all numbers then $\div$ by number of numbers. |
| :--- | :--- |
| median | Order no.s in ascending order + find middle no.. |
| mode | The number that occurs most often. |
| Range | The difference between highest and lowest. |

2. Find the mean, median, mode and range of the following numbers:

$$
\begin{array}{lll}
\text { Mean }=3 & \text { Median }=2,1,0,2,6,2,8 \\
8,8,10,11,16,7,5,15 \\
\text { Median }=9 & \text { Mode }=2 & \text { Range }=8 \\
\text { Mean }=10 & \text { Mode }=8 & \text { Range }=11 \\
\text { Mean }=26 \cdot 5 & \text { Median }=25,20,20,30 & \text { Mode }=20
\end{array}
$$

Section 2

1. Find the mean, median, mode and range of the following numbers:

$$
\begin{array}{lll}
\text { Mean }=5 & \text { Median }=5^{5,2,4,5,6,8,5} \quad \text { Mode }=5 & \text { Range }=5 \\
\text { Mean }=70 \quad \text { Median }=72, ~ M o d e ~ & 96,96,40,48 \\
\text { Mean }=35 & \text { Median }=33,27,24,23,40,40 & \text { Range }=56
\end{array}
$$

## Section 3

1. Four children's shoe sizes are listed below.

| Child | Shoe Size |
| :---: | :---: |
| Percy | 7 |
| Megan | 4 |
| Ged | 5 |
| Billy | 4 |

a) What is the average shoe size of the group? 5
b) What is the range of their shoe sizes?
c) What is the modal shoe size? 4
d) What is the median shoe size?
2. Jessica is measuring the average temperature in London across four days. On Monday the temperature was $35^{\circ} \mathrm{C}$, it was $43^{\circ} \mathrm{C}$ on Tuesday, $21^{\circ} \mathrm{C}$ on Wednesday and $21^{\circ} \mathrm{C}$ on Thursday.
a) What was the mean temperature? $30^{\circ} \mathrm{C}$
b) What was the range of temperatures?
c) What was the mode of the temperatures? $21^{\circ} \mathrm{C}$ Range $=22^{\circ} \mathrm{C}$
3. The ages of Grandma Helen's grandchildren are listed below.
$8,20,16,13,14,7,26,15,14,12$
a) Find the grandchildren's average age. $14 \cdot 5$ yrs
b) What is the median age? 14 yrs
c) What is the modal age?

14 yod
d) What is the range of their ages? 19 ygrs

## Arithmetic Problems 2

1. One plane can carry a maximum of 837 passengers. How many passengers can three planes carry? 25/1
2. Regina was born in 1982. Her daughter was born 32 years later. In which year was her daughter born? 2014
3. The Queen celebrated 60 years of her reign in 2012. In which year did the Queen celebrate the 25th year of her reign? 1977
4. The Miller family went to Florida twice - once in 2003 and again 8 years later. In what year did The Millers go to Florida for the second time?
5. Queen Victoria's reign began in 1837 and ended 64 years later. In what year did her reign end? 1901
6. Find the mean of: $18,15,16,28$ and 27 . Write your remainder as a fraction.

$$
104 \div 5=20.8
$$

7. Oranges cost 24p each. Apples cost 30p each. How much does Holly spend if she buys 3 oranges and 2 apples? $72 p+60 p \doteq 132 p / f 1.32$
8. A train travels 80 miles in one hour. How far would it travel in four hours? 320 miles
9. Theo receives two boxes of dog food. Each box holds 20 packets of food and each packet holds 250 g of food. How much dog food does The receive in total? $40 \times 250 \mathrm{~g}$

10. Christopher and Jessica are doing a sponsored swim. Christopher swims 3 kilometres and receives $£ 28$ for every kilometre he swims. Jessica swims 2 kilometres and receives $£ 31$ for every kilometre she swims. Who receives more money and by how

11. An olive tree costs $£ 35$. Ann has $£ 160$. Will this be enough to buy five trees? $N 0$ $35 \times 5= \pm 175$
12. Erica counts the number of stickers in her book and says that she has 250 stickers in total. Complete the table to show how many pink stickers she has.

| Sticker Colour | Number of Stickers |
| :---: | :---: |
| Red | 42 |
| Yellow | 106 |
| Pink | 7 |
| Blue | 85 |

a) If Erica originally had 150 yellow stickers, how many has she used?

$$
150-106=44
$$

## Weight Scales

Complete the scales so that the dial matches the digital reading.

$$
1060 \div 10=100
$$



## Length Scales

Write the measurements shown by the arrows below.
1.

2.


$13 \mathrm{~mm} / 1.3 \mathrm{~cm}$



## Capacity Scales

Write the measurements shown by the arrows below.


## Estimating Angles

## Complete the questions below.



Estimated angle:

Actual angle:
Angle type:


Estimated angle:

Actual angle:

Angle type:


Estimated angle:
Actual angle:

Angle type:


Estimated angle:

Actual angle:

Angle type:


Estimated angle:

Actual angle:

Angle type:


Estimated angle:

Actual angle:

Angle type:


Estimated angle:

Actual angle:

Angle type:


Estimated angle:

Actual angle:

Angle type:


Estimated angle:
Actual angle:

Angle type:

## Coordinates

1. Draw a cross at $(5,1)$ and connect this point to the others to form an irregular pentagon.

2. Write the coordinates of points $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D .

3. $A=3,0$
4. $B=1,4$
5. $\mathrm{C}=7,5$
6. $\mathrm{D}=$ $\qquad$
7. Draw three more lines on the grid to form a square.

8. What are the coordinates of the square's four vertices?
a. 1 13 3 )
c. $\qquad$ , 2 ,
b. $\qquad$ , $\qquad$ )
d.
$\qquad$ .2 )
9. Plot the following coordinates on the grid below then join them up in order.
A: $(3,2)$
C: $(3,9)$
E: $(10,6)$
B: $(2,6)$
D: $(9,9)$
F: $(9,2)$

a. What shape have you drawn above?

## Drawing Lines of Symmetry

Draw all lines of symmetry on the shapes below.


Properties of Shapes
Answer the questions based on the shapes below.


1. What is the name of Shape D? $\qquad$ Regular retagon

2. What type of triangle is Shape F? $\qquad$ Equilateral triangle
3. How many vertices does Shape E have? $\qquad$
4. Which two shapes contain right angles? $\qquad$ $A$ and $C$
5. What type of triangle is Shape C? $\qquad$ Right-angled triangle
6. In shape E , how many angles are smaller than a right angle? $\qquad$
7. What is the name of Shape E? $\qquad$ Parallelogram
8. What is the name of Shape B? $\qquad$ Regular hexagon
9. Which shapes have three vertices? $\qquad$
10. What size are the angles in Shape F? $\qquad$
11. What size are the angles in Shape A? $\qquad$ 90
12. Which two shapes have at least one pair of perpendicular sides? $\qquad$ $A$ and $C$
13. Which shapes contain at least one pair of parallel sides? $\qquad$
14. What are the properties of an isosceles triangle? $\qquad$ Two sides and two angles of the same size.
15. What are the properties of a scalene triangle? $\qquad$ All cider and
$\qquad$

## Calculating Angles

Name and triangles below and write the value of the missing angle in each of the shapes below.


Write the value of the missing angle in each of the shapes below.


## Horizontal and Vertical Lines of Symmetry

Draw the reflections of the shapes below in the lines of symmetry.


## Area and Perimeter

## Section 1

Find the area and perimeter of each of the shapes below.

12 cm


Area:
$48 \mathrm{~cm}^{2}$
Perimeter: 32 cm

15 cm


Perimeter: 38 cm 24 m


6 cm


Area:


Perimeter:


800 m


Area: $112000 \mathrm{~m}^{2}$
Perimeter:


Perimeter: 64 m

1. A square has sides of 15 metres. What is its perimeter?
2. A rectangular playground measures 50 metres by 32 metres. What is the area of the playground?

b) What is the perimeter of the playground?
3. A trampoline is in the shape of a regular pentagon. Each side is 90 cm long. What is the perimeter of the trampoline?


Section 2

1. Look at the plan of the garden on the right.
a) What fraction of the garden is covered by the swimming pool? $2 / 6$ or $1 / 3$
b) What fraction of the garden is covered by the patio? 1/6
c) What is the area of the grass? $75 \mathrm{~m}^{2}$
d) What is the perimeter of the swimming pool? 3 Dm
e) What is the area of the patio? $25 \mathrm{~m}^{2}$


Find the areas and perimeters of the shapes below.


Section 3
Find the areas and perimeters of each of the shapes below.


Perimeter $=400+360=760 \mathrm{~m}$


$$
\begin{aligned}
& A=36+24=60 m^{2} \\
& P=16+18+12=46 \mathrm{~m}
\end{aligned}
$$



Perimeter $=70+100$

$$
=170 \mathrm{~m}
$$

## Review Quizzes

## Quiz 1

1. What is half of 23 ? $\| .5,\left||r|_{r}\right| 1 \frac{1}{2}$
2. $131 \times 4=524$
3. Find three-fifths of 40.27
4. $6,080 \div 10=608$
5. $841 \div 5=168$ rr $168 \frac{1}{5}, 168 \cdot 2$
6. $3,758 \div 5=751 \times 3,751 \frac{3}{5}, 751.6$

7. Draw hands on the clock so that it shows one hour later than 4:55.

8. What is 15 minutes later than the time shown on the clock above?
$\qquad$
9. Find the area and perimeter of this rectangle.

$$
\begin{aligned}
& \text { Area }=245 \mathrm{~cm}^{2} \\
& \text { Perimeter }=84 \mathrm{~cm}
\end{aligned}
$$

35 cm
14. Write three thousand and thirty in digits.
15. Write nineteen thousand, two hundred in digits.
16. Add $5 p, £ 10$ and $£ 2$. $\quad 12005$

## Quiz 2

1. Divide 36,500 by ten. 3650
2. $\frac{3}{4}$ of $412=309$

$$
\begin{aligned}
& A=36 \mathrm{~cm}^{2} \\
& P=30 \mathrm{~cm}
\end{aligned}
$$

3. What is the area and perimeter of a rectangle that is 12 cm long and 3 cm wide?
4. $190 \div 5=38$
5. $1742-555=187$
6. $8054-579=7475$
7. $6000-3116=2884$
8. Increase 960 by $30 \%$. 288
9. What is the difference between 8:42 a.m. and 12:05 p.m.
10. $361 \times 12=4332$
11. Add 3.5 km and 300 m . 3.8 Km
12. Dorinda and Leah's ages add up to 67. Dorinda is 15 years older than Leah. How old is


Quiz 3

1. Frederick left home for work at 06:45 and returned home at 19:10. For how long was he away from home? 12 hrs 25 mins
2. Which number is halfway between 81 and 59? 70
3. Which number is halfway between 122 and 245? $183 \frac{1}{2}$ or 183.5
4. What are 5 lots of 28p? 140 p or E 1.40
5. $16.2+0.93=17 \cdot 13$
6. Find the mode, mean, median and range of: $28,6,32,21,31,32$.
a) Mode $=32$
b) Mean $=25$
c) Median $=29.5$
d) Range $=26$
7. An equilateral triangle's sides are 7.2 cm long. What is the perimeter of the triangle? 21.6 cm
8. What is the area of a square with sides 42 mm long?

$$
1764 \mathrm{~mm}^{2} \text { or } 17.64 \mathrm{~cm}^{2}
$$

## Quiz 4

1. A film starts at $3: 15$ p.m. and is 2 hours and 40 minutes long. At what time does it finish? $5: 55 \mathrm{pm}$
2. I'm thinking of a number. I add 7 to my number and then divide by 2 . My answer is 350. What number am I thinking of? 693
3. Find the product of half of 30 and double 17.
```
510
```

4. Rewrite these times in order, earliest first.

5. What number is halfway between 90 and 180 ?
6. Four children score $15,24,22$ and 19 out of 30 in a test. What was their average score?
a) What is the median score? $20 \cdot 5$

## Quiz 5

1. The product of two numbers is 380 . If one of the numbers is 5 , what is the other number? 76
2. Which month is between August and October?
3. What is the difference between 3 L and 580 ml ? Write your answer in millilitres.
4. Below are the birth dates of some children.

| A. 13/04/14 | B. 03/08/14 | C. 25/12/13 |
| :---: | :---: | :---: |
| D. $31 / 12 / 13$ | E. $07 / 06 / 20$ | F. 30/03/20 |

a) Who is the eldest?
b) Who is the youngest? $\bar{E}$
c) Whose birthday is in June?

d) Whose birthday is on Christmas Day?

e) Whose birthday is during the summer holidays?



[^0]: