# Number, Shape and Measure

# **Book Two Point Five**

By Kin Learning

First Edition

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### Bonds to 100 and 1000

Section 1

1.	100 - 79 =	5.	100 - 16 =	9.	100 - 2 =
2.	100 - 38 =	6.	100 - 15 =	10	. 100 - 60 =
3.	100 - 20 =	7.	100 - 9 =	11	. 100 - 42 =
4.	100 - 56 =	8.	100 - 93 =	12	. 100 - 80 =
Sec	ction 2				
1.	100 - 53 =	5.	100 - 50 =	9.	100 - 48 =

<b>-</b> .	100 30	5. 100 50	). 100 lo
2.	100 - 72 =	6. 100 - 8 =	10. 100 - 63 =
3.	100 - 37 =	7. 100 - 16 =	11. 100 - 5 =
4.	100 - 83 =	8. 100 - 14 =	12. 100 - 83 =

### Section 3

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

### Adding 10, 100 and 1000

Section 1

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

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

### **Number Bonds**

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

Example:



### **Doubles and Halves**

#### Section 1

1.	Double 2½ =	6.	Double 5½ =
2.	Double 3½ =	7.	Double 7½ =
3.	Double 10½ =	8.	Double 8½ =
4.	Double 9½ =	9.	Double 1½ =
5.	Double 4½ =	10.	Double 6½ =

#### Section 2

Fill in the gaps below. Work from the example down.

a)	8 + 1 = 9	d)	10 + 1 = 11
	Half of 8 =		Half of 10 =
	Half of 1 =		Half of 1 =
	Half of 9 =		Half of 11 =
b)	4 + 1 = 5	e)	6 + 1 = 7
	Half of 4 =		Half of 6 =
	Half of 1 =		Half of 1 =
	Half of 5 =		Half of 7 =
c)	2 + 1 = 3	f)	12 + 1 = 13
	Half of 2 =		Half of 12 =
	Half of 1 =		Half of 1 =
	Half of 3 =		Half of 13 =

### Section 3

1.	Half of 13 =	5.	Half of 17 =
2.	Half of 21 =	6.	Half of 25 =
3.	Half of 19 =	7.	Half of 101 =
4.	Half of 15 =	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 × 200 =   (, 0, 000)	5.	20×3500= 70,000	9.	12×800 = 9,600
2.	3×110= 330	6.	10×50= <i>ら</i> 00	10.	50×11= <i>ら</i> ら0
3.	7×500= ろ, SOO	7.	9×11,000 = 99,000	11.	400 × 2,000 = 800,000
4.	240×20= 4,800	8.	20×11,000=220,000	<sup>3</sup> 12.	600×110=66,000
Sec	tion 2				
1.	400÷2= 200	5.	150,000 ÷ 5 = 30, 000	9.	1,000 ÷ 100 = 10
2.	500÷5= / OO	6.	10,000 ÷ 200 = 50	10.	2,500÷5= ≤○○
3.	1,000÷2= 500	7.	77,000÷11= 7,000	11.	3,300÷11= 300
4.	6,000÷2=3,000	8.	1,000÷2= 500	12.	200÷2=   () ()

### Section 3

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

### Section 4

1.	3,000 ÷ 6 = 500	5.	3,000 ÷ 500 = b	9.	900÷3= 3○○
2.	270÷30= 1	6.	200÷2=   🔿 🔿	10.	1,500÷500 = ⊰
3.	700÷70= 10	7.	200 ÷ 100 = 2	11.	600 ÷ 120 = 5
4.	4,800 ÷ 800 = 6	8.	7,200 ÷ 90 = 8 ()	12.	21,000 ÷ 30 = 700

### Section 5

1.	600 × = 3,600	5.	<u>60</u> ×9=540	9. 8× <u>30</u> =240
2.	600 × <u>700</u> = 420,000	6.	20× <u>\$</u> =160	10. 2× <u>⊰0</u> =60
3.	<u>  0 ()</u> × 40 = 4,000	7.	<u> 30                                    </u>	11. <u>⊰oo</u> ×400 = 120,000
4.	<u> </u>	8.	<u>600</u> × 80 = 48,000	12. <u> </u>

# **Negative Numbers**

#### Section 1

Write the number indicated by each arrow below.



#### Section 2

Write the following numbers in ascending order.

1. -1, 20, 3, -15



### **Ordering Numbers**

Rewrite the numbers below in ascending order.

1.	101,472	10,826	101,499	100,990	
	10,826	_100,9	90	101,472	101,499
2.	3,298	3,597	3,571	2,626	
	2,626	3,29	8	3,571	3,597
3.	20,050	19,999	20,899	21,000	
	19,999	20,03	50	20,899	21,000
4.	5,132	6,000	6,030	5,969	
	5,132	5,96	9	6,000	6,030

### **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 + 21. 1287 = 1000 + 200 + 80 + 72. 8692 = 8000 + 600 + 90 + 23. 2006 = 2000 + 600 + 600

4. 7357 = 7000 + <u>300</u> + <u>50</u> + <u>7</u>

#### Section 3

Write these numbers in words.

thousand nine hundred and forty-5,947 tive 1. 22,103 Wenty -h hundred and 2. NO busand on IWO and 204 0 3. 390,823 Thousan 4. ninei 5. 630 unc e an 8,050 Or 6.

#### 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. $264$
2.	Rearrange the digits 9, 7 and 8 to get as close as possible to 922. $897$
3.	Rearrange the digits 1, 4 and 6 to get as close as possible to 572. $ l \rho + l + l - l - l - l - l - l - l - l - l$
4.	Rearrange the digits 9, 7 and 6 to get as close as possible to 812. $796$

706
1.090
42,760
9,082
400,372
510,200
500,000
519

#### 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	943 - 349 = 594
2.	185	851-158=693
3.	572	752 - 257 = 495

### **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.



# Money

#### Section 1

Write the following money amounts in digits.

		Pounds and pence	Pence
E.g.	Four pounds and ten pence	£4.10	410p
1.	Thirty-two pounds and forty-six pence	£32.46	3246 A
2.	Twenty-three pounds	£23.00	2300 A
3.	Forty pounds and twenty-two pence	£40.22	4022 p
4.	Eight pounds and eight pence	£8.08	8080
5.	Two pounds fifty	£2-50	250 2
6.	Forty-three pounds and fifteen pence	£43.15	4315 p
7.	Fifty pounds	£50.00	5000 p
8.	Thirteen pence	£0.13	130
9.	Fifty pounds and five pence	£50.05	5005 p
10.	One hundred pounds and thirty pence	£100-30	10030p

#### Section 2

Add the amounts below:

- 1. 20p + £2 + 1p =
- 2. £1+50p+50p+20p=
- 3. £5 + 5p =
- 4.  $\pounds 2 + \pounds 10 + 10p + 20p + 2p =$
- 5.  $5p + 2p + \pm 10 =$
- 6. £20 + 50p + 20p + 50p + 5p + 50p =

 $f_{2.21}$   $f_{2.20}$   $f_{5.05}$   $f_{12.32}$   $f_{10.07}$  $f_{21.75}$ 

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

1. 
$$f 10.80 \underline{t10 + 50p + 20p + 10p}$$
  
2.  $f 12.49 \underline{f10 + f2 + 20p + 20p + 5p + 2p}$   
3.  $f 6.50 \underline{f5 + f1 + 50p}$   
4.  $f 0.17 \underline{10p + 5p + 2p}$ 

#### Section 3

Put the following amounts in ascending order.

1.  $f_{3}, f_{5,20}, 35p, f_{25}, f_{5}$  35p  $f_{3}$   $f_{5}$   $f_{5,20}$   $f_{25} = f_{38}, 55$ 2.  $f_{20}, 200p, f_{2,20}$  20p 200p  $f_{2,20}$   $f_{20}$   $= f_{24}, 40$ 3.  $f_{600}, 600p, 60p, f_{660}$  60p 600p  $f_{600}$   $f_{600}$   $f_{660}$   $f_{660}$   $= f_{1266, 60}$ 4.  $f_{5}, 5p, 50p, f_{500}, f_{5,50}$ 5p 50p  $f_{5}$   $f_{5}$   $f_{5,50}$   $f_$ 

#### Section 4

Put the following amounts in ascending order.

1.  $f_{3.50, f_{0.35, f_{35, f_{35.50, f_{35.50}}}} = f_{3.50} =$ 

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

#### Section 5

- 1. Dora has a £5 note in her purse and a 2p coin. How much money does she have altogether?  $f = 5 \cdot 0 2$
- 2. How much money do I have in my purse if I have:
  - a) Two 50p coins, three 10p coins and seven 2p coins.  $\pounds 1.44$
  - b) Six 20p coins, five 10p coins and five 1p coins.  $\pounds 1.75$
  - c) Three £2 coins, four pennies, two 50p coins and a ten pence coin.  $\pounds 7.14$
- 3. Ralph wants to buy a magazine that costs £3.85. If he has a £2 coin, a 50p coin and a 2p coin, how much more money does he need to be able to buy the magazine?  $\frac{1}{2}$
- 4. Three packs of football cards cost £4.20 altogether. How much does one pack cost?  $f_1 \cdot 40$
- 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 96p and two sandwiches costing £1.80 each. How much change will she get from £5? 44p
- 8. Stamps cost 59p each. How much would 10 stamps cost?  $f_{5.90}$
- 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?  $f 2 \cdot 3 \circ$
- 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?  $\cancel{5} \cdot 50$
- 11. Which coins would you need to make the following amounts with as few coins as possible?

a) 
$$67p \underline{50p 10p 5p 2p}$$
  
b)  $85p \underline{50p 20p 20p 5p}$   
c)  $f1.23 \underline{f1, 20p 2p 1p}$   
d)  $f5.96 \underline{f5, 50p 20p 2p 5p 1p}$   
e)  $f11.25 \underline{f10, f1, 20p 5p}$ 

# Arithmetic

### Subtraction - No Borrowing



### Subtraction - Borrowing Tens or Hundreds

2

8

11



	547 - 28 =					
		5	4	7		
-			Ź	8		
		5	1	9		

3

6

9

•

.



957 - 18 =





228 - 196 = - 196 - 196

10





749 - 390 = 12749 - 390 = 12 749 - 390 = 390 = 390 = 390 359









#### Subtraction – Borrowing from Both Columns















546 - 79 = L 

460 - 295 =





600 - 139 =  $\bigcirc$ -

300 - 168 = Ο D -







 $\bigcirc$ 











### Column Multiplication - Carrying

×



































**○**649 x 3 =



### Column Multiplication - No Carrying









### Column Multiplication - Carrying









 $65 \times 21 = /365$  5.  $31 \times 52 = /6/2$  6.  $96 \times 55 = 5280$ 4.









### Division Introduction - Carrying the First Digit

5.

2







126 ÷ 3 =





7.  $162 \div 2 =$ 





10.  $1406 \div 2 =$  07032040b 11. 2550 ÷ 5 =

12. 1539 ÷ 3 =

0510	0513
52550	31539

 13.  $1260 \div 6 =$  14.  $4555 \div 5 =$  15.  $3505 \div 5 =$  

 0 2 1 0
 0 9 1 1
 1 7 0 1

 6 1 2 6 0
 5 4 5 5 5
 5 3 5 0 5

The following answers will have remainders.



### Hundreds Division – Carrying with No Remainders



Thousands Division – Carrying with No Remainders

2



6

C



 7.  $1701 \div 3 =$  8.  $7862 \div 2 =$  9.  $9260 \div 5 =$  

 0567
 3931
 1852

 3172021
 27862
 592260

#### Arithmetic Review

-







2

3

3

8



9

2

9

9

9

8



9



10.  $5432 \div 5 =$  11.  $5451 \div 2 =$ 10.  $5432 \div 5 =$  11.  $5451 \div 2 =$ 10.  $5451 \div 2 =$ 11.  $5451 \div 2$ 

13. 5267÷2= 2633r1 25267

14.  $7996 \div 3 =$ 

15. 1757 ÷ 5 =

5

12. 5539 ÷ 5 =





### **Arithmetic Review**

Sec	ction 1 - Addition				
1.	902 + 18 = <b>9 2 0</b>	3.	752+670= 14-22	5.	9257+61= 9318
2.	634+438=1072	4.	743 + 465 = 120 8	6.	6079 + 4080 = 19159
Sec	ction 2 - Subtraction				
1.	500 - 289 = 名 🚺	3.	600 - 399 = 20 (	5.	400 - 130 = 270
2.	900 - 729 = [7]	4.	200-56=144	6.	700-452=24-8
Sec	ction 3 - Subtraction				
1.	184 - 75 = 109	3.	2103-58=2045	5.	1031 - 43 = 988
2.	516-265=25	4.	8236-2165 = 6071	6.	5446-3349= 2097
Sec	ction 4 - Multiplicatior	ı			
1.	16 x 35 = <mark>560</mark>	3.	825 x 5 = 4125	5.	67 x 14 = <b>938</b>
2.	4 x 148 = <mark>59 2</mark>	4.	90 x 23 = <b>2</b> 0 7 0	6.	500 x 24 = 12,000
Sec	ction 5 - Division				
1.	807÷2=403rl	3.	601÷3= <b>200</b> ~1	5.	708÷5= 141 r 3
2.	730÷3=243rl	4.	1842÷3= 614	6.	227÷5= 45 r 2
Sec	ction 6 - Mixed				
1.	82 x 54 = 44-28	3.	638÷2= 319	5.	681+129= 🖇 ( 🔿
2.	4521 + 322 = 4843	4.	100÷5= 20	6.	59 x 22 = (298
Sec	ction 7 - Mixed				
1.	935 + 346 = 1281	3.	862+718= 580	5.	57×31= 1767
2.	1059÷2= 529rl	4.	982+726= 1708	6.	71×12= <u>852</u>

### **Number Facts**

Section 1

1. If 
$$12 \times 12 = 144$$
, what is  $12 \times 13?$  ] 5 b

- 2. If  $32 \times 10 = 320$ , what is  $32 \times 9$ ? 288
- 3.  $18 \times 10 = 180$ . What is  $18 \times 11$ ? 98
- 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 x 95 = 1,330. What is 140 x 95? しろ, ろひの
- 7. 8 lots of 35 make 280. What is 35 x 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.  $45 \times 2 = 90$  and  $45 \times 10 = 450$ . What is  $45 \times 12$ ?  $540$   
3.  $48 \times 10 = 480$ . What is  $48 \times 5$ ?  $240$   
4.  $220 \div 2 = 10$ . What is 220 divided by 4?  $55$   
5. Ten lots of 86 make  $860$ . What is  $86 \times 5$ ?  $430$   
6.  $1,400 \div 100 = 14$ . What is  $1,400 \div 200$ ? 7  
7. If  $8 \times 100 = 800$ , what is  $8 \times 25$ ?  $200$   
8.  $10 \times 72 = 720$ . What is  $72 \times 11$ ?  $792$   
9. If  $67 \times 10 = 470$ , what is  $67 \times 9$ ?  $603$   
10. If  $38 \times 100 = 3,800$ , what is  $38 \times 50$ ?  $1,900$ 

### **Number Lines**

Write the number indicated by each arrow below.



•

### Rounding

Round the following numbers to the nearest ten.

1.	87 = 90	7.	8,174 = 8170
2.	42 = 40	8.	11,128-11, 130
3.	98 = 100	9.	14,606 = 14,610
4.	209 = 2/0	10.	6,132 = 6,130
5.	808 = 810	11.	7,522 = 7520
6.	212 = 210	12.	675 = 680

Round the following numbers to the nearest hundred.

1.	718 🚄	700	7.	6,189 = 6200
2.	177 🥌	200	8.	11,793 = // 800
3.	250 🥭	300	9.	33,350 = 33400
4.	971 🗧	1,000	10.	1,845 = 1800
5.	716 🥭	700	11.	283 = 300
6.	59	100	12.	6,374 = 6400

Round the following numbers to the nearest thousand.

	0		
1.	99,711 = 100,000	9.	905,866 = 906,000
2.	180,876 = 181,000	10.	397 = 🔿
3.	94,200 = 94,000	11.	375,880 = 376,000
4.	4,561 = 5,000	12.	8,284 = 8,000
5.	1,969 = 2,000	13.	827,657 = 828,000
6.	342,374 = 342,000	14.	1,973 = 2,000
7.	340,008 = 349,000	15.	595 <i>= 1,000</i>
8.	78,992 = 79,000	16.	8,274 = 8,000

# **Halfway Between**

#### Section 1

Write the missing numbers indicated by the arrows below.



2.5

38

7.5

27.5

62.5

75

Which number is halfway between 200 and 240? 4.

Which number is halfway between 0 and 5? 5.

Which number is halfway between 50 and 100? 6.

#### Section 3

- Which number is halfway between 35 and 41? 1.
- Which number is halfway between 5 and 10? 2.
- Which number is halfway between 25 and 30? 3.

Which number is halfway between 50 and 75? 4.

### **Missing Numbers**

Section 1

1. 1904 - 989 = 915. Write two more number sentences involving these numbers.  $1904 - 915 = 989_{and} \qquad 989 + 915 = 1904$ 2.  $38 \times 4 = 152$ . Write two more number sentences involving these numbers.  $152 \div 4 = 38 \qquad \text{and} \qquad 152 \div 38 = 4$ 3.  $360 \div 3 = 120$ . Write two more number sentences involving these numbers.  $120 \times 3 = 360 \qquad \text{and} \qquad 360 \div 120 = 3$ 4. 38 + 38 = 114. Write two more number sentences involving these numbers.  $38 \times 3 = 114$ . Write two more number sentences involving these numbers.  $38 \times 3 = 114$ . Write two more number sentences involving these numbers.  $38 \times 3 = 114$ . Write two more number sentences involving these numbers.  $38 \times 3 = 114$ . Write two more number sentences involving these numbers.

#### Section 2

Complete the calculations below by writing in the missing numbers.

1.
 
$$80 - 50 = 30$$
 4.
  $87 - 60 = 27$ 

 2.
  $42 - 10 = 32$ 
 5.
  $65 - 43 = 22$ 

 3.
  $48 - 25 = 23$ 
 6.
  $184 - 150 = 34$ 

 7.
  $667 + 200 = 867$ 
 10.
  $130 + 1/5 = 245$ 

 8.
  $174 + 140 = 314$ 
 11.
  $195 + 300 = 495$ 

 9.
  $33 + 67 = 100$ 
 12.
  $167 + 600 = 767$ 

#### Section 3



# Section 4



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.



1

### **Working Backwards**

Section 1



- 4. I'm thinking of a number. When I add 3 to this number the answer is 42. What was my original number?  $+3 \rightarrow 4-2$  39
- 5. When I multiply a number by 10, the answer is 600. What is the number?  $(_{2} \cap$
- 6. When I subtract 10 from a number, the answer is 73. What is the number?  $\& \Im \\ -10 \rightarrow 73$
- 7. I'm thinking of a number. I subtract 200 and my answer is 560. What was the original number?  $-200 \rightarrow 560 760$
- 8. Three times my number is 48. What is my number?  $\times 3 \rightarrow 48$

#### 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?  $\times 2 \rightarrow 56 \qquad 28$
- 2. When I divide a number by 10 I get the answer 7. What is the number? 7  $\bigcirc$
- 3. I get the answer 70 when I add 45 to a number. What is the number? 25
- 4. When I subtract 11 from a number the answer is 120. What is this number? |3| $-|| \rightarrow |20$
- 5. I'm thinking of a number. I subtract 100 from my number and get 250. What number did I start with?  $-100 \rightarrow 250$  350
- 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?

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

16



#### 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?  $-5 \rightarrow 85$  7
- 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?
- 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. 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? b
- 7. Anna paid for an item with a £50 note and received £12.47 change. How much did the item cost?  $\cancel{237.53}$

#### Section 4

Complete the calculations below by writing in the missing numbers.

1.	23×   ○ =230	435 ÷ 15   = 3
2.	355 ÷ 5 = 71	5. 532 <b>- 130 = 402</b>
3.	3,290÷ 329 = 10	6. 242 ÷ 11 = 22

When a number is multiplied by 5, the answer is 2,710. What number did I start with?  $\times 5 \rightarrow 2,710$ I'm thinking of a number. I divide the number by 3 and add 10. My answer is 130. 7.

- 8. What is my number?  $\div 3 \rightarrow + 10 \rightarrow 130$
- 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?  $\chi_2 \rightarrow \chi_{100} \rightarrow 6400$

#### 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?  $1 \cap$
- $(30 \times 3) 9 = 7$ Kristen is making cupcakes for a party. She makes 3 cupcakes per person plus 6 2. spares. She has 96 cupcakes in total. How many people are coming to the party?  $\langle \langle \langle \rangle \rangle$
- 3. is one book?  $\angle 7$ 
  - a) How much would 4 books cost?  $f_2 2 8$
- Ayesha paid £5 for 2 m of material. How much does 1m cost?  $2 \cdot 50$ 4.
- How many times can 8 be subtracted from 6,500?  $\mathcal{S}$  /  $\mathcal{D}$ 5.
- How many times can 11 be subtracted from 3,900? 3546.
- What must be added to 65 cm to make 25 m? 24 m 35 cm7.

8. On Monday, Joya gathered 10 conkers and her grandmother gave her double this amount. On Tuesday, Joya gathered more conkers so that now she has 38 altogether. 8 How many conkers did Joya gather on Tuesday?  $10+20+\Pi = 38$ 

30

### **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? 24
- 2. 1kg of sugar costs £1.28. What is the cost of 500g of sugar?  $b_{P} \approx \pm 0.64$
- 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 85p each. How much does she pay?  $\pounds 2 \cdot 55$
- 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?
- 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?
- Jason is carrying a cube and two balls of equal weight. The total weight of the objects is 5kg. If the cube weighs 3kg, how much does each ball weigh?
- 10. How many nines can fit into 450? 50
- 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 63kg. Altogether, the boys weigh 227kg. How much does Nikhil weigh? 82 2 27kg. How much does Nikhil weigh? 82 2 2
- 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?  $\pounds 87 \cdot 50$
- 14. What is 45 minutes later than 9:45 a.m.? 10 : 30 a.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?  $\pounds 7, 214$

### **Difference Between Questions**

#### Section 1

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

#### Section 2

- Kyle and Zoe's ages add up to 44. Zoe is 8 years older than Kyle. How old is each person? k = 18, Z = 26Meena and Maxine's ages add up to 29. Maxine is 9 years older than Meena. How old will 1.
- 2. Meena be next year?
- 3. Hope is 9 years older than Reece. Their ages add up to 37. How old is Hope? 9,3
- 4. Susan and Paul's ages add up to 36. Susan is 12 years younger than Paul. How old is each P = 24, S = 12person?
- Luna and Jacqui share £40 between them. Luna receives £6 more than Jacqui. How 5. much do they each receive?  $L = \pounds 23$ ,  $J = \pounds 17$
- Raoul and Simon share £45 between them. Raoul receives £1 more than Simon. How 6. much do they each receive?  $S = \pounds 22$ ,  $R = \pounds 23$

#### 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?
- Santiago spends £380 on a laptop and a television. The TV costs £120 more than the 2. laptop. How much does each item cost?  $L = \pounds 130$ ,  $T \cdot V = \pounds 250$
- Pablo and Dina share £34 between them. Pablo receives £4 more than Dina. How much 3. do they each receive? D=E15, P=E19
- In two years' time, Julie and Luke's ages will add up to 44. Luke is 12 years older than 4. Julie. How old is Luke now? 26
- Together, a bag of flour and a bag of sugar weigh 840g. The bag of flour is 200g heavier 5. than the bag of sugar. How much does the bag of sugar weigh?  $\mathcal{S} = \mathcal{Z} \mathcal{O}$ F = 520g

Complete the digital clocks below.



Calculate how much time has elapsed.

Start Time	Elapsed Time	End Time
12:00 p.m.	Shrs 20 mins	8:20 p.m.
3:15 a.m.	2hrs 30 mins	5:45 a.m.
2:25 a.m.	5hrs 10mins	7:35 a.m.
1:50 p.m.	2 hrs Smins	3:55 p.m.
11:20 a.m.	2 hours	1:20 pm
4:10 p.m.	2 hours and 20 minutes	6:30pm
9:50 p.m.	55 minutes	10:45pm
12:45 p.m.	5 hours and 15 minutes	6 pm
3:25 p.m.	1 hour and 30 minutes	4:55pm

Complete the table below.

Start Time	Elapsed Time	End Time
8:05 a.m.	4hrs 25 mins	12:30 p.m.
4:15 p.m.	Shrs 15 mins	12:30 a.m.
10:05 a.m.	Shrs 35 mins	3:40 p.m.
9:15 p.m.	Shrs 5mins	5:20 a.m.
5:30 a.m.	9hrs	1:30 p.m.
9:30 a.m.	3 hours and 30 minutes	lom
1:20 p.m.	2 hours and 40 minutes	4pm
5:55 p.m.	1 hour and 10 minutes	7:05pm
8:30 p.m.	1 hour and 45 minutes	10:15pm

•

Find the differences between the times listed below.

Start Time	End Time	Elapsed Time
	7 : 00	2 hours and 10 minutes
1:00	$\begin{array}{c} & & & \\$	1 how and 25 minutes
	1:15	2 hours and 10 minutes
	2:30	4 hours and 5 minutes
9 3 8 4 7 6 5 10 10 10 10 10 10 10 10 10 10	licate g. 1:15	2 hours and 10 minutes
$ \begin{array}{c}  & & & & \\  & & & & & \\  & & & & & \\  & & & &$	8:50	4 hours and 45 minutes

Find the differences between the times listed below.



#### 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.	2hrs 40 mins	
8:10 a.m.	3:15 p.m.	7hrs 5mins	
5:20 a.m.	10:35 a.m.	Shrs 15 mins	
6:45p.m.	10:10 p.m.	3hrs 25 mins	
9:00 a.m.	12:50 p.m.	3hrs 50 mins	
11:10 p.m.	2:05 a.m.	2hrs 55 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 hrs 30 mins	

#### Section 2

1. Calculate 2.5 hours later than 10:30 a.m.



- 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 p.m. and finishes at quarter to six. How long does he spend on his homework?  $90 \text{ mins} \approx 12 \text{ hrs}$
- Diya goes to bed at 9:30 p.m. and wakes up at 7:15 a.m. For how long was she asleep?
   9/015 45 min 5
   Yuvan spends 3 hours and 40 minutes playing at his friend's house. If Yuvan leaves at
- 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?

### 24-Hour Time

#### Section 1

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

1. 5:36 p.m.
$$17:36$$
4. 8:18 p.m. $20:18$ 7. 4:17 p.m. $16:17$ 2. 7:12 p.m. $19:12$ 5. 7:50 p.m. $19:50$ 8. 12:51 p.m. $12:51$ 3. 1:05 p.m. $13:05$ 6. 8:49 p.m. $20:49$ 9. 9:30 p.m. $21:30$ 

#### Section 2

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

1.	6:56 p.m	18:56	4. 11:29 p.m.	23:29	7.	10:48 p.m.	22:48
2.	2:56 p.m	14:56	5. 5:40 p.m	17:40	8.	4:57 p.m	16:57
3.	8:59 p.m	20:59	6. 3:41 p.m	15:41	9.	1:44 p.m	13:44

#### Section 3

Convert the following times into 12-hour form.

1.	16:51	4:51 pm	4. 18:29 <u>6:29 pm</u>	7. 19:19	7:19 pm
2.	12:49	<u>12:49 pm</u>	5. 15:52 <u>3:52 pm</u>	8. 20:10	10:10 pm
3.	23:14	11:14 pm	6. 17:29 <u>5:29 pm</u>	9. 21:03	9:03 pm

#### Section 4

Write the following times in 24-hour time.

- 1. 38 minutes past 3 o'clock in the afternoon.
- 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.

15:38	
10:20	
21:19	
23:14	
14:51	
03:25	
12:11	

- 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.

### Dates

1.

2.

3.

4.

5.

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

Heidi	Erin	Evan
08/11/08	21/09/09	31/07/08
Who is the eldest child?	Evan	
Who is the youngest?	Erin	
Which month was Erin bo	ornin? Septemb	ser
Which month was Heidi I	oornin? Novemb	er
	Heidi 08/11/08 Who is the eldest child? Who is the youngest? Which month was Erin bo Which month was Heidi B	HeidiErin08/11/0821/09/09Who is the eldest child?EVQNWho is the youngest?ErinWhich month was Erin born in?SeptemberWhich month was Heidi born in?November

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	31/07/0	)6
Who is the eldest child?	Dominic	
Who is the youngest?	Ahmed .	
Which month was Domi	nic born in? April	
In which year was Nell b	orn? 2005	
Which month was Ahme	ed born in? Septer	rber
	I	

### **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.  $3 \text{ m} = \frac{3}{200} \text{ cm}$
- 2. 2 m = <u>20 0</u> cm
- 3.  $35 \text{ m} = \frac{3500}{2500} \text{ cm}$
- 4.  $11 \text{ m} = \frac{1000}{6000} \text{ cm}$ 5.  $6 \text{ m} = \frac{10000}{60000} \text{ cm}$

6. 700 cm = \_\_\_\_\_ m 7. 1600 cm = \_\_\_\_\_ m 8.  $36,500 \text{ cm} = \frac{365}{1000} \text{ m}$ 9. 1,300 cm = <u>1</u> m 10. 9,000 cm = \_\_\_\_\_ m

#### Length Introduction 2

Fill in the gaps below.



#### Length Introduction 3

Fill in the gaps below.

- 1.  $30 \text{ cm} = \frac{300}{\text{mm}} \text{mm}$ 2.  $5 \text{ cm} = \frac{50}{\text{mm}} \text{mm}$ 3.  $19 \text{ cm} = \frac{900}{1000} \text{mm}$
- 4. 7 cm = 70 mm
- 5. 180 cm =  $\frac{800}{100}$  mm

### Weight Introduction

Fill in the gaps below.

- 1. 5,000 g = 5 kg
- 2. 17,000 g = 17 kg
- 3. 9,000 g = \_\_\_\_\_ kg
- 4. 28,000 g = 28 kg
- 5. 1,000 g = \_\_\_\_\_ kg

7. 
$$45 \text{ km} = \frac{45000}{1000} \text{ m}$$
  
8.  $5 \text{ km} = \frac{5000}{1000} \text{ m}$   
9.  $200 \text{ km} = \frac{20000}{1000} \text{ m}$   
10.  $18 \text{ km} = \frac{60000}{1000} \text{ m}$   
11.  $225 \text{ km} = \frac{25000}{10000} \text{ m}$   
12.  $19 \text{ km} = \frac{10000}{10000} \text{ m}$ 

9. 7,500mm = 
$$750$$
 cm  
10. 960mm =  $960$  cm

6. 
$$11 \text{ kg} = 4000 \text{ g}$$
  
7.  $16 \text{ kg} = 2000 \text{ g}$   
8.  $8 \text{ kg} = 2000 \text{ g}$   
9.  $20 \text{ kg} = 2000 \text{ g}$   
10.  $7 \text{ kg} = 7000 \text{ g}$ 

Fill in the gaps below.

#### **Volume Introduction**

1. 3 L = 3000 ml2. 20 L = 2000 ml3. 48 L = 480004. 10 L = 100005. 6 L = 6000

#### Volume - Decimals

- 1. 7.5 L = 1500 ml2. 6.25 L = 6250 ml3. 10.8 L = 1000 ml4. 5 L = 5000 ml5. 1.6 L = 6000 ml
- 6.  $30.35 \text{ L} = \frac{30,350}{7} \text{ m}$

# Weight - Decimals

1. 20,000 g = 2.0 kg2. 3,400 g = 3 kg3. 5,800 g = 5 kg4. 17,700 g = 17 kg5. 9,100 g = 9 kg6. 50,900 g = 50.9 kg 6.  $4,000 \text{ ml} = \frac{1}{25}$ 7.  $35,000 \text{ ml} = \frac{35}{25}$ 8.  $9,000 \text{ ml} = \frac{9}{2}$ 9.  $12,000 \text{ ml} = \frac{12}{2}$ 10.  $2,000 \text{ ml} = \frac{21}{2}$ 

7. 7,100 ml = 7 L  
8. 2,500 ml = 2.5 L  
9. 
$$6,420$$
 ml =  $6.42$  L  
10. 22,600 ml = 2.6 L  
11. 17,050 ml = 7.05 L  
12. 50,150 ml = 50.15 L

7. 50.4 kg = 50.100 g8. 8.75 kg = 8750 g9. 9.9 kg = 9900 g10. 6.5 kg = 6500 g11. 70.8 kg = 70.800 g12. 8.25 kg = 8250 g

#### Length - Decimals 1

- 1. 105mm = \_\_\_\_\_\_ cm
- 2. 1,804mm = 30, 4 cm
- 3. 2,715mm = 271.5 cm
- 4. 158mm = 15,8 cm

### Length - Decimals 2

1. 25m = 2500 cm 2. 5.8m = 580 cm 3. 1.2m = 20 cm 4. 80m = 8000 cm 5. 4.3m = 430 cm 6. 6.85m = 655 cm

#### Length - Fractions

10 millimetres = 1 <u>metre</u>  $\frac{1}{2}$  centimetre = <u>5</u> mm  $\frac{1}{2}$  centimetres = 1 metre  $\frac{1}{4}$  metre = <u>50</u> cm  $\frac{1}{2}$  metre = <u>50</u> cm

#### **Capacity - Fractions**

$$\frac{000}{14} \text{ millilitres} = 1 \text{ litre}$$

$$\frac{1}{4} \text{ litre} = \frac{250}{ml} \text{ ml}$$

$$\frac{1}{2} \text{ litre} = \frac{590}{ml} \text{ ml}$$

$$\frac{3}{4} \text{ litre} = \frac{750}{ml} \text{ ml}$$

$$\frac{1}{10} \text{ litre} = \underline{000} \text{ ml}$$

7. 
$$124.6 \text{cm} = 1246 \text{ mm}$$
  
8.  $6.2 \text{cm} = 62 \text{ mm}$   
9.  $9.5 \text{cm} = 25 \text{ mm}$   
10.  $150.5 \text{cm} = 505 \text{ mm}$ 

7. 
$$450 \text{ cm} = 4.5 \text{ m}$$
  
8.  $2,100 \text{ cm} = 2.5 \text{ m}$   
9.  $1280 \text{ cm} = 2.8 \text{ m}$   
10.  $130 \text{ cm} = 3.5 \text{ m}$   
11.  $1,750 \text{ cm} = 7.5 \text{ m}$   
12.  $790 \text{ cm} = 7.5 \text{ m}$ 

metres = 1 kilometre  $\frac{1}{4}$  kilometre =  $\frac{250}{500}$  m  $\frac{1}{2}$  kilometre =  $\frac{500}{750}$  m  $\frac{3}{4}$  kilometre =  $\frac{7500}{750}$  m

#### Weight - Fractions

$$\frac{2}{4} \text{ kg} = \frac{2}{59} \frac{9}{9} \text{ g}$$
  
 $\frac{1}{4} \text{ kg} = \frac{2}{59} \frac{9}{9} \text{ g}$   
 $\frac{1}{2} \text{ kg} = \frac{7}{59} \frac{9}{9} \text{ g}$   
 $\frac{1}{10} \text{ kg} = \frac{1}{9} \frac{9}{9} \text{ g}$ 

### Section 2

1.	Re-wri	te these di	stances in asc	ending orde	r: 1600r	$\sim$	
а	ı)	0.6km		60m	1.6k	m	1.6cm
		لى ال		2	4		
b	))	1.2m	1	.2mm	0.012	km	12cm
C	:) 	5.5km	5	55km	550r	n	5500cm
2.	Underl	line the two	o equal measu	irements in	each row.		
	a)	45 km	4500 cm	4.5 m	45 m		
	b)	990 km	9.9 km	990 cm	9,900	m	
3.	A lapto	p weighs 1	8kg. How mu	ich do three	laptops weig	gh in gram	ns?
		1-8x3	3 = 5.44	9 = 5400	00	1-	200
Sectio	on 3					- 2	246
1.	<ol> <li>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. 954mL</li> </ol>						
2.	A bucket of water can hold 5 L of water. It currently has 3,603 ml of water in it. How much more water can it hold? Write your answer in millilitres. $3970$						
3.	3. Rupert has 4 bags of sugar weighing 320g each. How much do the bags weigh altogether? Write your answer in kilograms. $1 \cdot 25$ kg						
4.	<ul> <li>A shoelace measures 42 cm. Vanessa cuts off 12mm. How long is the shoelace now?</li> <li>Write your answer in mm. 408 mm 420</li> </ul>						
5.	What is the difference between 10 m and 0.5 km?						
6.	What is the difference between 2 g and 3 kg?						
7.	Joanie lays five wooden planks end to end. Each plank is 80cm long. What is the total						
	length	of the plan	ks? Write you	ır answer in	metres.	4m	
8.	Hugo a	dds 70 ml	of juice to a gl	ass that alre	ady has $\frac{2}{10}$ lit	tres of juid	ce in it. How much
	juice is	in there no	ow? Write you	ır answer in	millilitres.	270	Inl

#### Section 4

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

50cm

- 2. What is  $2\frac{2}{10}$  litres in millilitres?
- 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 30cm 3
- 4. A rug has a perimeter of 6 m. The rug is 1 m wide. What is its length?
- 5. A window has a perimeter of 7 m. The window has a height of  $1\frac{1}{2}$  m. What is its width?
- 6. Sophie pours out half of a 3-litre bottle of water. How much does she have left in millilitres?
- 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
- A tree sapling was 66 mm tall. It is now 3 cm taller. How many millimetres tall is it now?
   9.6cm
- 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  $1\frac{3}{4}$  m tall. Lochlan is 150 cm tall. What is the difference in their heights?
- 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.
- 13. Adjoa is 156 cm tall. She wears heeled shoes that make her appear 5cm taller. How tall will she be with her shoes on? Write your answer in metres.

1611g

1.61m

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

45

### Averages

#### Section 1

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

Mean	Add all numbers then - 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:



### Section 2

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

$$Mean = 5 \qquad Median = 5 \qquad Mode = 5 \qquad Range = 6$$

$$Mean = 70 \qquad Median = 72 \qquad Mode = 96 \qquad Range = 56$$

$$Mean = 35 \qquad Median = 33.5 \qquad Mode = 4.0 \qquad Range = 33$$

#### Section 3

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

Child	Shoe Size
Percy	7
Megan	4
Ged	5
Billy	4

- What is the average shoe size of the group? a)
- What is the range of their shoe sizes? b)
- What is the modal shoe size? c)
- 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°C, it was 43°C on Tuesday, 21°C on Wednesday and 21°C on Thursday.

30°C

- What was the mean temperature? a)
- What was the range of temperatures? b)
- What was the mode of the temperatures? c)
- 3. The ages of Grandma Helen's grandchildren are listed below.

8, 20, 16, 13, 14, 7, 26, 15, 14, 12

- Find the grandchildren's average age.  $14 \cdot 5 yrs$ a)
- What is the median age? [4 yvs b)
- What is the modal age? 14 yrs What is the range of their ages? 19 yrs c)

d)

 $\mathcal{C}$ 

Range = 22°C

# **Arithmetic Problems 2**

- 1. One plane can carry a maximum of 837 passengers. How many passengers can three planes carry?
- Regina was born in 1982. Her daughter was born 32 years later. In which year was her 2. daughter born? 2014
- The Queen celebrated 60 years of her reign in 2012. In which year did the Queen 3. celebrate the 25th year of her reign? /977
- 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?  $2 \land 1$
- 5. Queen Victoria's reign began in 1837 and ended 64 years later. In what year did her reign end? 1401
- Find the mean of: 18, 15, 16, 28 and 27. Write your remainder as a fraction. 6.
- Oranges cost 24p each. Apples cost 30p each. How much does Holly spend if she buys 7. 3 oranges and 2 apples? 7 p + 60 p = 132 p + 1.32
- A train travels 80 miles in one hour. How far would it travel in four hours? 320 miles 8.
- 9. Theo receives two boxes of dog food. Each box holds 20 packets of food and each packet holds 250g of food. How much dog food does Theo receive in total?  $40 \times 250$  g
- Christopher and Jessica are doing a sponsored swim. Christopher swims 3 kilometres 10. 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 C=F84 J= E62 Chrisby E22 much?
- An olive tree costs £35, Ann has £160. Will this be enough to buy five trees?  $N_0$ 11.  $35 \times 5 = \pm 175$ Erica counts the number of stickers in her book and says that she has 250 stickers in
- 12. total. Complete the table to show how many pink stickers she has.

Sticker Colour	Number of Stickers
Red	42
Yellow	106
Pink	17
Blue	85

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

150 - 106 = 44

# Weight Scales



49

. •

# Length Scales

Write the measurements shown by the arrows below.



# **Capacity Scales**

Write the measurements shown by the arrows below.



### **Estimating Angles**

Complete the questions below.





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:

### **Co-ordinates**

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 A, B, C and D.



5. Draw three more lines on the grid to form a square.

6.

7.



a. What shape have you drawn above?

Hexagon.

# Drawing Lines of Symmetry

Draw all lines of symmetry on the shapes below.



# **Properties of Shapes**

Answer the questions based on the shapes below.

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

# **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.



- 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?  $1600 \text{ m}^2$ 
  - b) What is the perimeter of the playground? 164m
- 3. A trampoline is in the shape of a regular pentagon. Each side is 90 cm long. What is the perimeter of the trampoline? 450 cm

#### 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?  $\frac{2}{6} \propto \frac{1}{3}$
  - b) What fraction of the garden is covered by the patio?  $\frac{1}{100}$
  - c) What is the area of the grass?  $75m^2$
  - d) What is the perimeter of the swimming pool?
  - e) What is the area of the patio? 25

Find the areas and perimeters of the shapes below.





#### Section 3

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



### **Review Quizzes**

Quiz 1

- What is half of 23?  $|| \cdot 5 || r | 1 = 6.$   $131 \times 4 = 524$ 1.
- 7.  $61 \times 52 = 3172$ Find three-fifths of 40. 27 2.
- 3.  $6,080 \div 10 = 668$ 4.  $841 \div 5 = 168 \text{ r}$  1685, 16827. 4010 3389 = 621
- 5.  $3,758 \div 5 = 751 \times 3,751 \times \frac{3}{5},751 \times 6$  10. 451 + 8869 = 9320



- 11. Draw hands on the clock so that it shows one hour later than 4:55.
- 12. What is 15 minutes later than the time shown on the clock above?

13. Find the area and perimeter of this rectangle.



Quiz 2



#### Quiz 4

- A film starts at 3:15 p.m. and is 2 hours and 40 minutes long. At what time does it 1. 5;55pm finish?
- I'm thinking of a number. I add 7 to my number and then divide by 2. My answer is 2. 350. What number am I thinking of? 693

Find the product of half of 30 and double 17. 5103.

4. Rewrite these times in order, earliest first.

*p.m*. 5 o'clock 4:35 p.m. midday 16:15 6:10 p.m. <u>4:35pm 50'dack 6:10 pm</u>

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

#### Quiz 5

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

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

- Who is the eldest? a)
- Who is the voungest? b)
- Whose birthday is in June? c)
- Whose birthday is on Christmas Day? d)

Whose birthday is during the summer holidays? e)

September

2420 ml

135