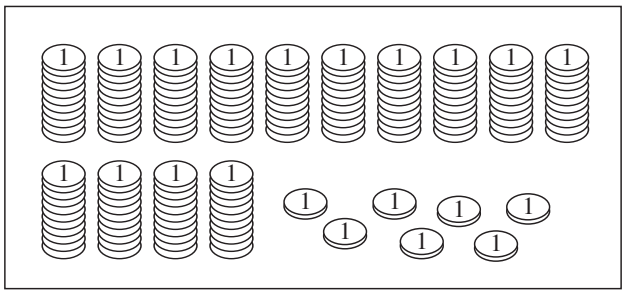
1 Count the amount in the box and write the number in the place-value table.



H	T	U
1	4	7

2 a) Write the numbers as digits.

i) seventy eight 78 ii) one hundred and seventy eight 178

iii) eight 8 iv) one hundred and eight 108

v) one hundred and eighty 180

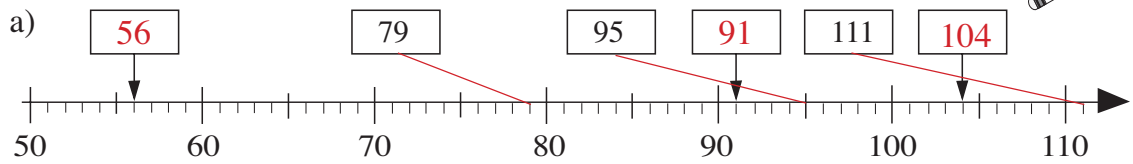
vi) one hundred and eighty seven 187 vii) seventy 70

b) List these numbers in **increasing** order.

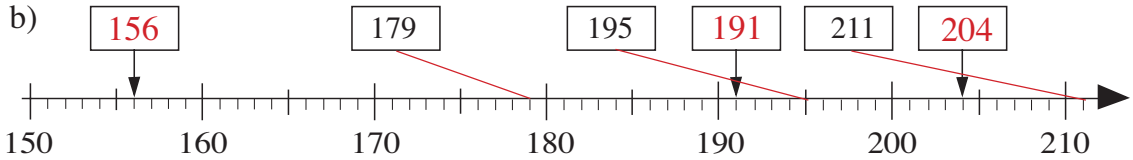
8 < 70 < 78 < 108 < 178 < 180 < 187

3 Fill in the missing numbers. Join up the given numbers to the number line.

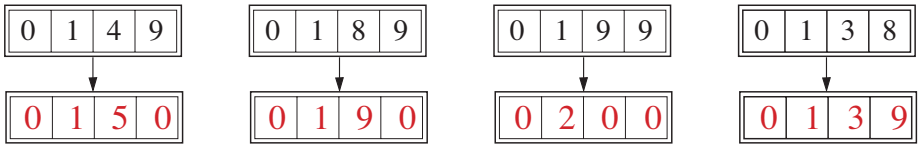
a)



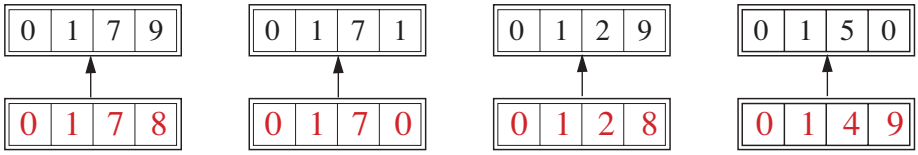
b)



4 a) What will the milometer show when we have gone another mile?



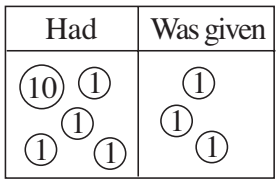
b) What did the milometer show 1 mile ago?



1

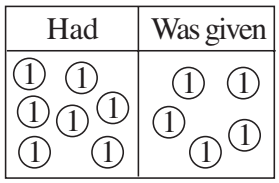
Write additions or subtractions about the pictures.

a)



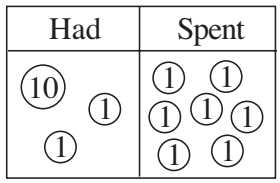
14 + 3 = 17

b)



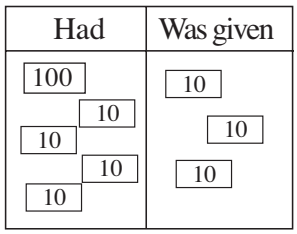
7 + 5 = 12

c)



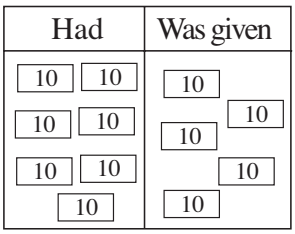
12 – 7 = 5

d)



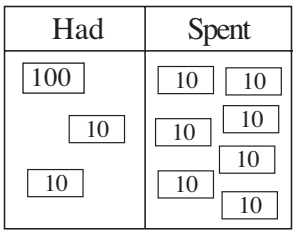
140 + 30 = 170

e)



70 + 50 = 120

f)

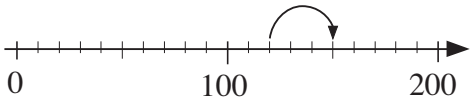


120 – 70 = 50

2

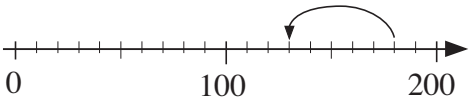
Write operations about the jumps along the number lines.

a)



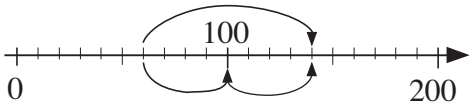
120 + 30 = 150

b)



180 – 50 = 130

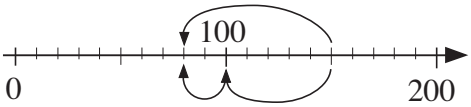
c)



60 + 80 = 140

60 + 40 + 40 = 140

d)



150 – 70 = 80

150 – 50 – 20 = 80

3

Practise calculation.

a)	3 + 4 = 7	13 + 4 = 17	3 + 14 = 17
	30 + 40 = 70	130 + 40 = 170	30 + 140 = 170
b)	7 – 5 = 2	17 – 5 = 12	17 – 15 = 2
	70 – 50 = 20	170 – 50 = 120	170 – 150 = 20

4

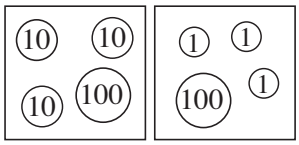
Roberta keeps some of her money in a piggy bank and some of it in a purse. How much does Roberta have altogether? Complete the table.

Pence in 	80	180	30	120	50	60	30	80
Pence in 	20	20	170	40	130	40	130	110
Pence in total	100	200	200	160	180	100	160	190

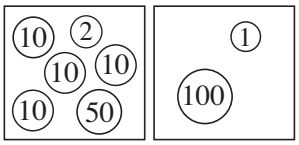
1

Who has more money? How much more?

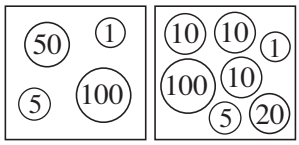
a) *Anne* *Brian*



b) *Colin* *Diana*



c) *Ella* *Fred*



A: $100 + 3 \times 10 = 130$

B: $100 + 3 \times 1 = 103$

$130 > 103$

$130 - 103 = 27$

C: $50 + 4 \times 10 + 2 = 92$

D: $100 + 1 = 101$

$101 > 92$

$101 - 92 = 9$

Diana has 9 more.

E: $100 + 50 + 5 + 1 = 156$

F: $100 + 20 + 3 \times 10 + 5 + 1 = 156$

$156 = 156$

Ella and Fred have the same amount.

2

Practise calculation:

a)	$2 + 8 =$ 10	$20 + 80 =$ 100	$2 + 9 =$ 11	$20 + 90 =$ 110
b)	$3 + 7 =$ 10	$30 + 70 =$ 100	$3 + 9 =$ 12	$30 + 90 =$ 120
c)	$10 - 4 =$ 6	$100 - 40 =$ 60	$12 - 4 =$ 8	$120 - 40 =$ 80
d)	$10 - 9 =$ 1	$100 - 90 =$ 10	$17 - 9 =$ 8	$170 - 90 =$ 80
e)	$90 + 40 =$ 130	$80 + 50 =$ 130	$90 - 40 =$ 50	$180 - 50 =$ 130
f)	$200 - 30 =$ 170	$200 - 130 =$ 70	$200 - 110 =$ 90	$200 - 10 =$ 190

3

Anne has £80 and Bob has £60.

a) How much money do they have altogether? £80 + £60 = £140

b) How much money will they have altogether if:

i) Anne is given an extra £10 £90 + £60 = £150

ii) Bob spends £20 £80 + £40 = £120

iii) they each spend £40 £40 + £20 = £60 (or £140 − £80 = £60)

iv) Anne spends £50 and Bob is given an extra £90?

£80 − £50 + £60 + £90 = £180

4

The 3 numbers along each line add up to 200. Write in the missing numbers.

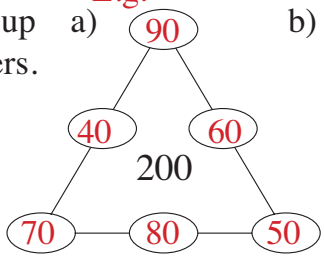
Choose from:

a) 40, 50, 60, 70, 80, 90

b) 30, 40, 50, 60, 70, 80, 90, 100

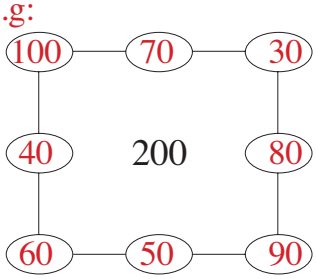
E.g:

a)



E.g:

b)



1 How many lettuces are in the gardens? Write additions and multiplications.

a)

5 + 5 + 5 + 5 + 5 = 25

5 × 5 = 25

b)

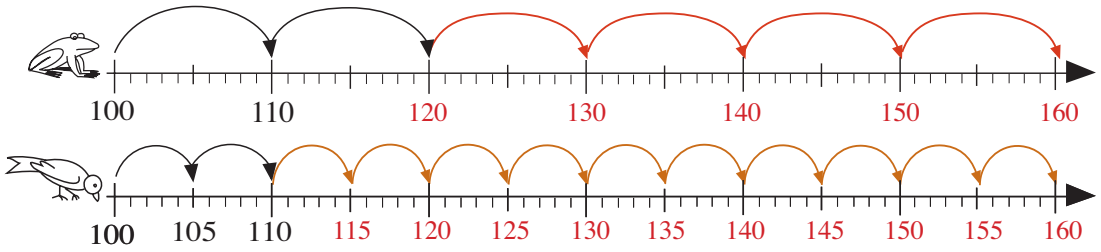
5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 50

10 × 5 = 50

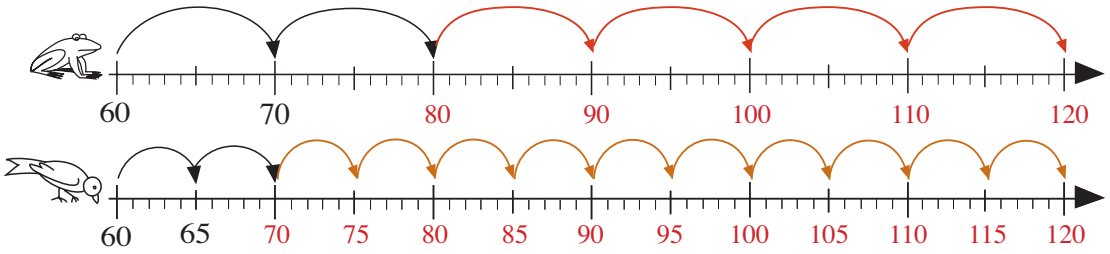
5 × 10 = 50

2 *Frog* jumps 10 units at a time and *Sparrow* jumps 5 units at a time along the number line. Draw their jumps and write the numbers they land on if:

a) they start from 100

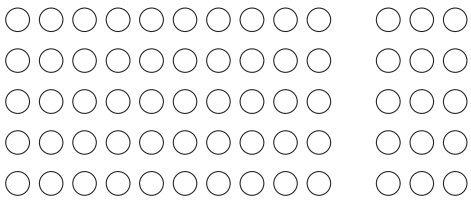


b) they start from 60.



3 Write an addition, a multiplication and a division about each picture.

a)

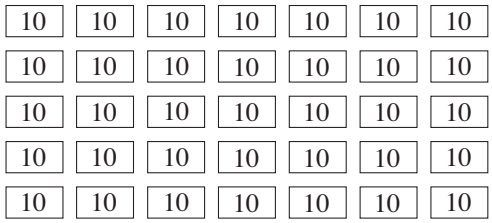


50 + 15 = 65

13 × 5 = 65

65 ÷ 5 = 13

b)



50 + 50 + 50 + 50 + 50 + 50 + 50 = 350

50 × 7 = 350

350 ÷ 10 = 35

1 Sue spent some money on sweets. How much did she have left?
Complete the table.

Had (p)	100	200	90	190	150	180	150	150
Spent (p)	50	50	60	160	140	110	110	140
Had left (p)	50	150	30	30	10	70	40	10

2 Use only the digits 0, 1, 2, 3, 4 or 5. Which of these digits can be put in the units, tens or hundreds boxes so that the numbers are

a) **exactly** divisible by 5: 2 5 [0/5] | 2 [0/1/2/3/4/5] 0 | [1/2/3/4/5] 30 | 2 0 [0/5]

b) **exactly** divisible by 10? 2 5 [0] | 1 [0/1/2/3/4/5] 0 | [1/2/3/4/5] 30 | 2 0 [0]

3 Fill in the missing numbers.

a) $4 + 7 = 11$ $40 + 70 = 110$ $1 + 8 = 9$ $10 + 80 = 90$

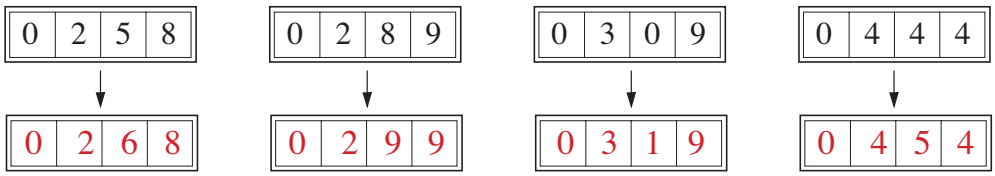
b) $5 + 8 = 13$ $50 + 80 = 130$ $6 + 9 = 15$ $60 + 90 = 150$

c) $20 - 5 = 15$ $200 - 50 = 150$ $13 - 4 = 9$ $130 - 40 = 90$

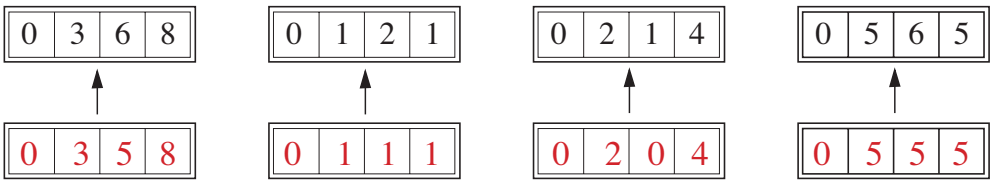
d) $30 - 6 = 24$ $300 - 60 = 240$ $15 - 8 = 7$ $150 - 80 = 70$

e) $75 - 9 = 66$ $750 - 90 = 660$ $23 - 7 = 16$ $230 - 70 = 160$

4 a) What will the milometer show when we have gone another 10 miles?



b) What did the milometer show 10 miles ago?



5 Which different 1-digit numbers could a, b and c be if $a + b + c = 14$ and $a \times b \times c = 84$?

E.g: $a = 3$ $b = 4$ $c = 7$

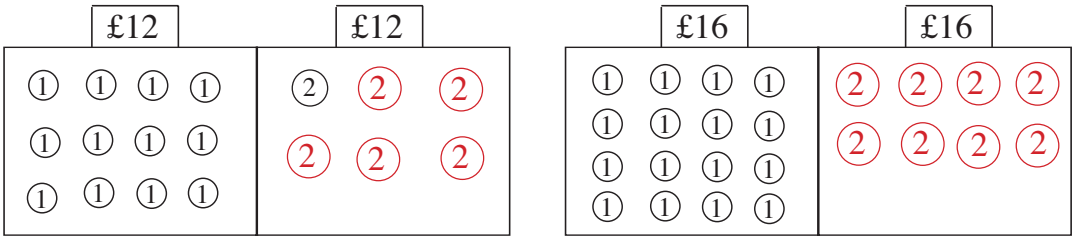
1

Complete the table.

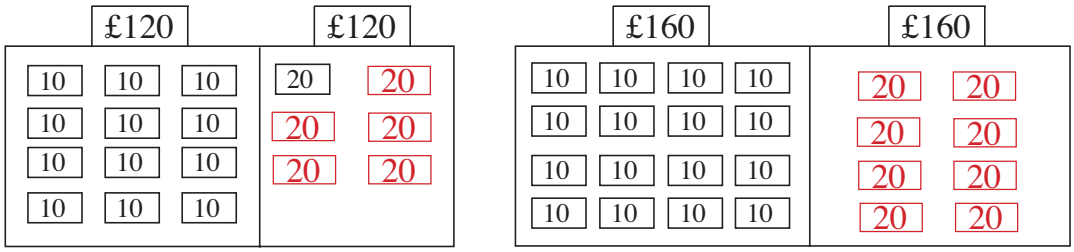
×	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
10	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200

2

a) Exchange these amounts for £2 coins. Draw the £2 coins in the boxes.



b) Exchange these amounts for £20 notes. Draw the £20 notes.



3

Practise calculation.

a) $6 \times \boxed{10} = 60$

$7 \times \boxed{5} = 35$

$\boxed{25} \times 2 = 50$

$\boxed{20} \times 7 = 140$

$\boxed{11} \times 10 = 110$

b) $\boxed{0} \times 10 = 0$

$40 \div \boxed{10} = 4$

$60 \div \boxed{2} = 30$

$\boxed{160} \div 8 = 20$

$\boxed{180} \div 6 = 30$

c) $\boxed{20} \times 3 = 60$

$16 \div \boxed{2} = 8$

$\boxed{200} \div 2 = 100$

$\boxed{0} \div 20 = 0$

$\boxed{150} \div 50 = 3$

4

Among how many children can 60 apples be shared equally if we do not cut up any apples? Show your answer by writing divisions.

$60a \div 2 = 30a$ $60a \div 6 = 10a$ $60a \div 20 = 3a$

$60a \div 3 = 20a$ $60a \div 10 = 6a$ $60a \div 30 = 2a$

$60a \div 4 = 15a$ $60a \div 12 = 5a$ $60a \div 60 = 1a$

$60a \div 5 = 12a$ $60a \div 15 = 4a$ $(60a \div 1 = 60a)$

1

Practise calculation.

a) $40 + 90 - 20 =$ 110 $\quad 180 - 60 - 50 =$ 70 $\quad 110 - 40 + 90 =$ 160

b) $6 \times 10 \times 2 =$ 120 $\quad 150 \div 5 \div 10 =$ 3 $\quad 16 \div 2 \times 5 \div 10 =$ 4

c) $110 - 5 \times 8 =$ 70 $\quad 90 - 60 \div 10 =$ 84 $\quad 9 \times 10 - 45 \div 5 =$ 81

d) $5 \times 7 + 100 =$ 135 $\quad 130 \div 10 + 10 =$ 23 $\quad 180 - 8 \times 10 - 40 =$ 60

2

Which of the numbers 0, 1, 2, 3, 4 or 5 could be put in the place of the missing digits so that the numbers are even? List the possible 3-digit numbers.

a) 1 5 ☐ 150, 152, 154 ..... c) ☐ 16 116, 216, 316, 416, 516 .....

b) 1 ☐ 5 None - always odd (as the final digit is 5) ..... d) 1 0 ☐ 100, 102, 104 .....

3

Write a plan, do the calculation and write the answer as a sentence.

a) Henry had 70 p. He paid a bill with five 10 p coins.
How much money did he have left?

$70 - 5 \times 10 = 70 - 50 = 20$

Answer: Henry had 20 p left. .....

b) Judith paid a bill with ten 5 p coins and had 70 p left.
How much money did she have at first?

$70 + 10 \times 5 = 120$

Answer: Judith had 120 p at first. .....

c) Sue has 70 p. A sweet costs 1 tenth of her money.
How much will Sue pay if she buys 5 sweets?

$5 \times (70 \div 10) = 5 \times 7 = 35$

Answer: Sue pays 35 p. .....

4

Solve the number puzzle.

Across

a $152 - 20 \times 2$

d $60 + 100 - 10$

e $100 \div 5 + 2$

a 1	*b* 1	*c* 2
d 1	5	0
	e 2	2

Down

a $200 \div 10 - 9$

b $12 + 70 \times 2$

c $400 \div 2 + 2 \div 1$

1

Fill in the missing items.

a) 1 m 72 cm = [172] cm

148 cm = 1 [m] 48 [cm]

b) 1 m 8 cm = [108] cm

1 and a half metres = [150] cm

c) 1 litre 25 cl = 125 [cl]

151 cl = [1] litres 51 [cl]

d) 1 litre 5 cl = [105] cl

[1] and a half litres = 150 cl

e) 2 litres water → [2] kg

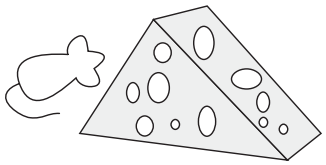
1 km [>] 300 m

f) 200 g [<] 1 kg

130 cl [>] 1 litre

2

Mrs Mouse had 180 g of cheese. Help her to work out how much cheese has been eaten and how much remains. Complete the table.



Eaten (g)	0	140	170	25	132	75	34	115	40	180
Remaining (g)	180	40	10	155	48	105	146	65	140	0

Rule: 180 g = E + R E = 180 g − R R = 180 g − E

3

Fill in the missing numbers and standard units.

a) 45 cm × 2 = [90 cm] 180 kg ÷ 10 = [18 kg]

b) 150 litres ÷ 5 = [30 litres] 23 litres × 5 = [115 litres]

c) 1 m 30 cm ÷ 2 = [65 cm] 1 m 30 cm × 5 = [650 cm]

4

Write a plan, do the calculation and write the answer as a sentence.

a) Sarah's younger brother is 90 cm tall. Sarah is 40 cm taller than her brother. How tall is Sarah?

90 + 40 = 130

Answer: Sarah is 1 m 30 cm tall. . . . . .

b) A desk is 70 cm high. We put 6 books, each 5 cm thick, one on top of the other on the desk. If we put a pencil on top of the pile of books, how far will the pencil be from the floor?

70 + (6 × 5) = 100

Answer: The pencil will be 1 m from the floor. . . . . .

1

Write additions or subtractions about the pictures.

a)

Had (p)	Was given (p)
20, 50	20, 1, 5

70 p + 26 p = 96 p

b)

Had (£)	Was given (£)
50, 100, 20	20, 1, 5

£170 + £26 = £ 196

c)

Had (p)	Spent (p)
20, 20, 2, 20, 1	20, 1, 2

63 p – 23 p = 40 p

d)

Had (£)	Spent (£)
20, 20, 100, 20, 2, 1	20, 1, 2

£163 – £23 = £140

2

For each sequence, complete the rule and write the next 3 terms.

a) This sequence is increasing by [20]. 27, 47, 67, ..87., ..107., ..127.,

b) This sequence is increasing by [30]. 9, 39, ..69., ..99., ..129.,

c) This sequence is decreasing by [30]. 196, 166, ..136., ..106., ..76.,

d) This sequence is decreasing by [40]. 200, 160, ..120., ..80., ..40.,

3

Practise calculation.

a)	27 + 60 = [87]	b) 70 + 19 = [89]	c) 36 – 20 = [16]
	27 + 160 = [187]	70 + 119 = [189]	136 – 20 = [116]
	127 + 60 = [187]	170 + 19 = [189]	136 – 120 = [16]

4

Fill in the missing numbers.

a)	50 + [26] = 76	b) [40] + 13 = 53	c) 153 – [40] = 113
	50 + [126] = 176	[40] + 113 = 153	179 – [139] = 40
	29 + [10] = 39	[43] + 50 = 93	[146] – 16 = 130
	29 + [110] = 139	[43] + 150 = 193	[135] – 120 = 15

5

Greg and Helen have 58 postcards altogether. Greg has 30 more than Helen.
How many cards do they each have?

Helen: [14] Greg: [44]

(58 – 30) ÷ 2 = 28 ÷ 2 = 14

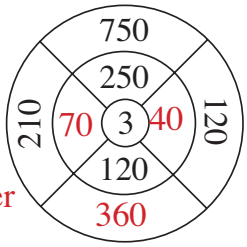
1 Write these numbers in the correct boxes.

0, 3, 6, 7, 9, 13, 22, 34, 67, 88, 102, 112, 123, 156, 187

Even	Odd
0, 6, 22, 34, 88, 102, 112, 156	3, 7, 9, 13, 67, 123, 187

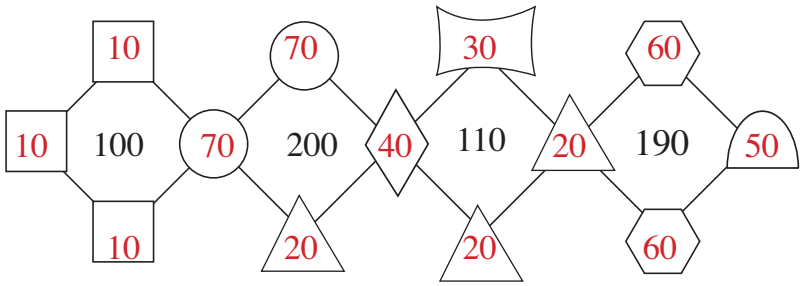
2 Write the rule and fill in the missing numbers.

Rule: E.g: . . . . . .
(outer number) ÷ (middle number) = innermost number



3 The same shape means the same number. The number in the middle is the **sum** of the 4 numbers around it. Fill in the missing numbers. Choose from:

10, 20, 30, 40, 50, 60 or 70.

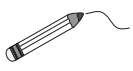


4 Fill in the numbers missing from the snakes. Write the rules in their heads.

a) 109 113 117 121 125 129 133 137 141 145 Add 4

b) 155 149 143 137 131 125 119 113 107 101 Subtract 6

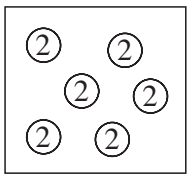
5 Join up the equal amounts.



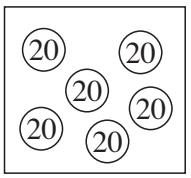
36 ÷ 6 + 100	4 × 15 ÷ 6
3 quarters of 40	1 fifth of 125
2 thirds of 18, minus 2	57 + 7 × 7
1 half of 50	(72 + 18) ÷ 3

1

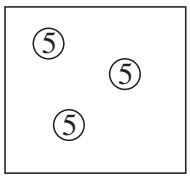
How many pence are in the boxes? Write a multiplication about each picture.

a) 

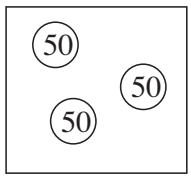
6 × 2 p = 12 p

b) 

6 × 20 p = 120 p

c) 

3 × 5 p = 15 p

d) 

3 × 50 p = 150 p

2

Complete the table.

×	11	12	13	14	15	16	17	18	19	20
3	33	36	39	42	45	48	51	54	57	60
6	66	72	78	84	90	96	102	108	114	120
9	99	108	117	126	135	144	153	162	171	180

3

Calculate the **products** and **quotients**.

a) 6 × 3 = 18 60 × 3 = 180 6 × 30 = 180

b) 9 × 2 = 18 90 × 2 = 180 9 × 20 = 180

c) 15 ÷ 3 = 5 150 ÷ 3 = 50 150 ÷ 30 = 5

d) 12 ÷ 6 = 2 120 ÷ 6 = 20 120 ÷ 60 = 2

4

Fill in the missing numbers.

a) 3 × 4 = 12, 6 × 4 = 24, 50 × 3 = 150, 2 × 90 = 180

b) 18 ÷ 2 = 9, 180 ÷ 2 = 90, 180 ÷ 20 = 9, 180 ÷ 9 = 20

c) 20 ÷ 5 = 4, 200 ÷ 50 = 4, 200 ÷ 5 = 40, 200 ÷ 20 = 10

5

a) Andrew has 90 football stickers, 3 times more than David.
How many stickers does David have?

90 ÷ 3 = 30

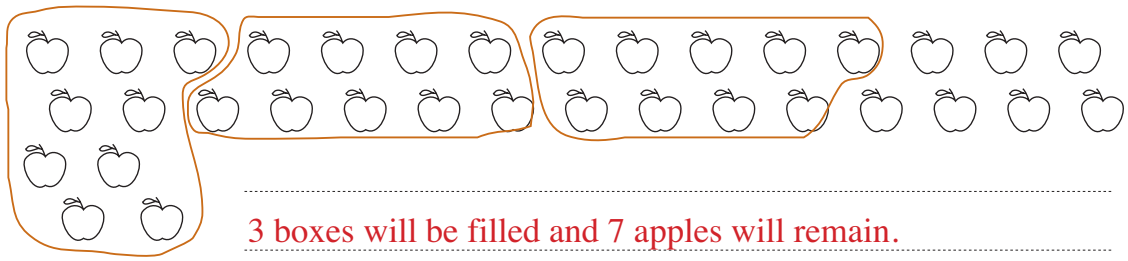
Answer: David has 30 stickers.

b) Emma saved £30, which was 1 sixth of the amount that Vicky saved.
How much did Vicky save?

6 × 30 = 180

Answer: Vicky saved £180.

1 Pack these apples in boxes of 9. How many boxes will be filled and how many apples will remain? E.g:



3 boxes will be filled and 7 apples will remain.

2 Exchange the £1 coins for £10 notes. How many £1 coins will remain? Complete the table.

Number of:

(£1) coins	46	75	100	107	140	63	121	159
£10 notes	4	7	10	10	14	6	12	15
£s remaining	6	5	0	7	0	3	1	9

3 Practise division. Check with multiplication.

a) $19 \div 2 = 9$ remainder 1

Check $1 + 9 \times 2 = 19$

b) $25 \div 6 = 4$ remainder 1

Check $1 + 4 \times 6 = 25$

c) $30 \div 9 = 3$ remainder 3

Check $3 + 3 \times 9 = 30$

d) $27 \div 5 = 5$ remainder 2

Check $2 + 5 \times 5 = 27$

e) $53 \div 6 = 8$ remainder 5

Check $5 + 8 \times 6 = 53$

f) $134 \div 20 = 6$ remainder 14

Check $14 + 6 \times 20 = 134$

4 Each box can hold 6 eggs. How many boxes can be filled and how many eggs will remain? Complete the table. Complete the rule.

Number of:

eggs	30	45	50	121	185	123	182	70
boxes filled	5	7	8	20	30	20	30	11
eggs remaining	0	3	2	1	5	3	2	4

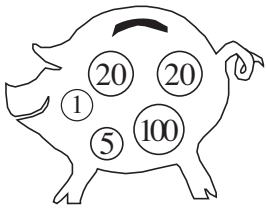
$E = B \times 6 + R$

1

Write additions and subtractions about the pictures.

E.g:

a)

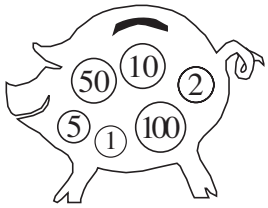


② ②

146 + 4 = 150

150 – 146 = 4

b)



⑤ ②

168 + 7 = 175

175 – 168 = 7

2

Calculate the **sums** and **differences**.

95 + 8 = 103	135 + 8 = 143	102 – 5 = 97	182 – 5 = 177
94 + 7 = 101	154 + 7 = 161	104 – 8 = 96	154 – 8 = 146
96 + 9 = 105	176 + 9 = 185	103 – 6 = 97	123 – 6 = 117

3

Practise calculation.

a) 124 + 18 ÷ 3 = 130	152 + 48 ÷ 6 = 160	45 ÷ 9 + 165 = 170
b) 180 – 36 ÷ 6 = 174	110 – 63 ÷ 9 = 103	120 ÷ 6 – 7 = 13
c) 68 + 30 + 6 = 104	168 + 30 + 6 = 204	68 + 130 + 6 = 204
d) 65 – 40 – 7 = 18	165 – 40 – 7 = 118	165 – 140 – 7 = 18

4

Write a plan, do the calculation, check the answer and write it as a sentence.

a) Peter is 1 m 34 cm tall and Sarah is 8 cm taller. How tall is Sarah?

1 m 34 cm + 8 cm = 1 m 42 cm

Answer: Sarah is 1 m 42 cm tall.

b) A shop had 126 kg of apples in stock. This was 9 kg more than the amount of grapes in stock. How many kg of grapes were in the shop?

126 kg – 9 kg = 117 kg

Answer: There were 117 kg of grapes in the shop.

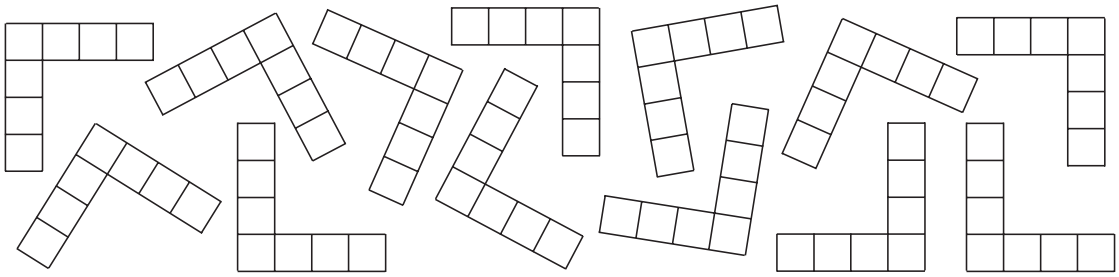
c) There was 1 litre 50 cl of water in a jug. Another 50 cl of water was poured into the jug. How much water was in the jug then?

1 litre 50 cl + 50 cl = 2 litres

Answer: There were 2 litres of water in the jug then.

1

Write operations about the picture.



E.g. $13 \times 7 = 10 \times 7 + 3 \times 7 = 70 + 21 = 91$

$7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 = 91$

2

Complete the table.

×	11	12	13	14	15	16	17	18	19	20
2	22	24	26	28	30	32	34	36	38	40
4	44	48	52	56	60	64	68	72	76	80
8	88	96	104	112	120	128	136	144	152	160
7	77	84	91	98	105	112	119	126	133	140

3

Practise multiplication and division.

a) $3 \times 4 = \boxed{12}$ $3 \times 40 = \boxed{120}$ $30 \times 4 = \boxed{120}$

b) $2 \times 8 = \boxed{16}$ $20 \times 8 = \boxed{160}$ $2 \times 80 = \boxed{160}$

c) $16 \div 4 = \boxed{4}$ $160 \div 4 = \boxed{40}$ $160 \div 40 = \boxed{4}$

d) $14 \div 7 = \boxed{2}$ $140 \div 7 = \boxed{20}$ $140 \div 70 = \boxed{2}$

4

Fill in the missing numbers.

a) $6 \times \boxed{3} = 18$ b) $\boxed{40} \times 4 = 160$ c) $20 \div \boxed{4} = 5$

$9 \times \boxed{8} = 72$ $\boxed{4} \times 30 = 120$ $180 \div \boxed{2} = 90$

$7 \times \boxed{9} = 63$ $\boxed{20} \times 9 = 180$ $\boxed{36} \div 4 = 9$

$8 \times \boxed{6} = 48$ $\boxed{3} \times 60 = 180$ $\boxed{160} \div 8 = 20$

$\boxed{0} \times 7 = 0$ $\boxed{10} \times 7 = 70$ $\boxed{49} \div 7 = 7$

1

List the numbers which make the inequality true.

a) $70 \div 5 > \square > 200 \div 10$ $\square$: Impossible

b) $8 \times 4 + 14 < \star \leq 11 \times 5 - 5$ $\star$: 47, 48, 49, 50

c) $81 \div 9 \times 3 \geq \triangle > 100 \div 5$ $\triangle$: 21, 22, 23, 24, 25, 26, 27

2

A 1st class stamp costs 27 p and a 2nd class stamp costs 21 p.

a) Complete the table.

Number of:					
21 p stamps	1	1	2	2	2
27 p stamps	1	2	0	1	2
Total cost (p)	48	75	42	69	96

b) I paid exactly £1 65 p for stamps. How many 1st class and how many 2nd class stamps did I buy?

$4 \times 21 + 3 \times 27 = 84 + 81 = 165$

Answer: I bought 3 1st class stamps and 4 2nd class stamps

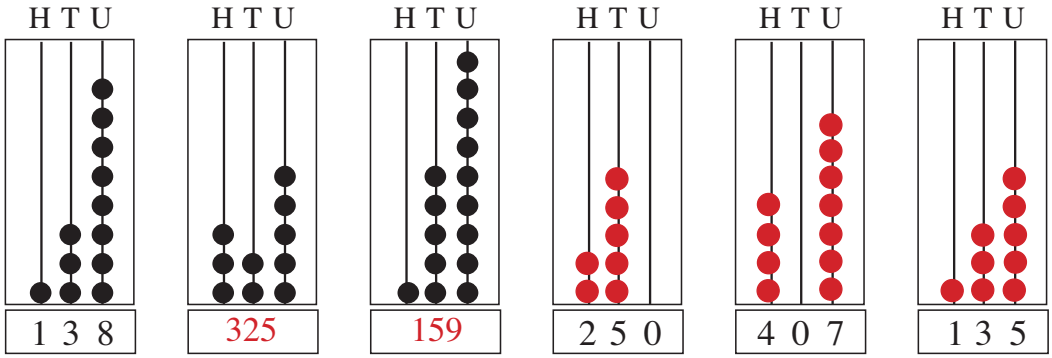
3

How many different results can you find? Use +, –, or × signs.

70	+	10	+	3	=	83	70	×	10	–	3	=	697
70	+	10	–	3	=	77	70	+	10	×	3	=	100
70	–	10	+	3	=	63	70	–	10	×	3	=	40
70	–	10	–	3	=	57	70	×	10	×	3	=	2100
70	×	10	+	3	=	703	70		10		3	=	

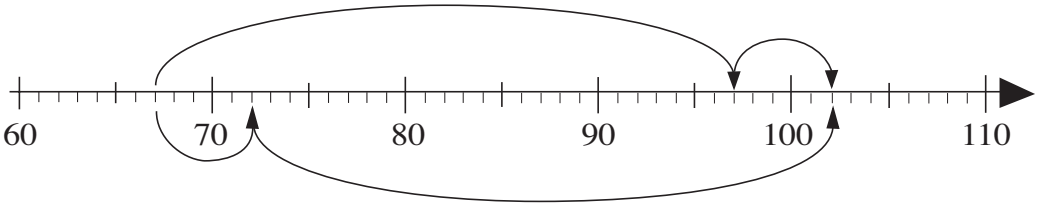
4

Fill in the missing numbers and complete the drawings.



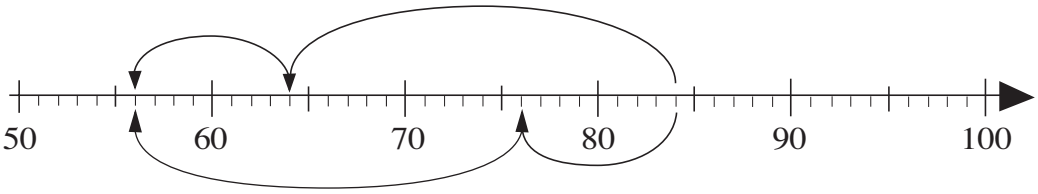
1 Write the calculations in two ways to match the arrows on the number lines.

a) Dennis had saved £67. He was given £35 for his birthday. How much money does he have now?



1) £67 + £30 + £5 = £102 2) £67 + £5 + £30 = £102

b) Sandra had 84 p. She bought a drink for 28 p. How much money does Sandra have now?



1) 84 p – 20 p – 8 p = 56 p 2) 84 p – 8 p – 20 p = 56 p

2 Calculate:

a)	36 + 20 = 56	36 + 23 = 59	136 + 20 = 156	136 + 23 = 159
b)	57 + 8 = 65	57 + 38 = 95	157 + 8 = 165	157 + 38 = 195
c)	76 – 30 = 46	76 – 34 = 42	176 – 30 = 146	176 – 34 = 142
d)	92 – 50 = 42	92 – 56 = 36	192 – 50 = 142	192 – 56 = 136

3 The sum of any two adjacent numbers is the number directly above them.

The numbers in the bottom row increase by 4.

Fill in the missing numbers.

		192		
	80		112	
32		48		64
	12		20		28		36	
4		8		12		16		20

4 E.g:

5	89	83	23
72	35	41	52
46	59	65	30
77	17	11	95

Fill in the numbers missing from the magic square.

The sums of the numbers in each row, column or diagonal are equal.

1

Write the calculation **without** brackets so that the result is the same.

a) $128 + (30 + 5) =$ 163 — 128 + 30 + 5 = 163

b) $127 - (50 + 1) =$ 76 — 127 − 50 − 1 = 76

c) $146 - (90 - 16) =$ 72 — 146 − 90 + 16 = 72

d) $(50 - 7) \times 3 =$ 129 — 50 × 3 − 7 × 3 = 129

e) $(160 + 8) \div 8 =$ 21 — 160 ÷ 8 + 8 ÷ 8 = 21

2

Calculate:

a) $20 \times 6 =$ 120 $\quad 20 \times (6 - 1) =$ 100 $\quad 20 \times (6 \div 2) =$ 60

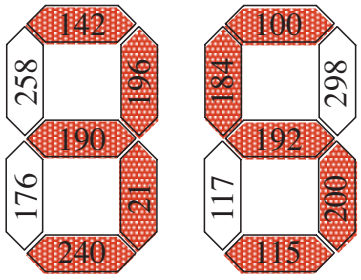
$20 \times (6 + 2) =$ 160 $\quad 20 \times (6 \times 0) =$ 0 $\quad 20 \times (6 + 4) =$ 200

b) $160 \div 8 =$ 20 $\quad 160 \div (8 \div 2) =$ 40 $\quad 160 \div (8 - 4) =$ 40

$160 \div (8 - 6) =$ 80 $\quad 160 \div (8 \times 2) =$ 10 $\quad 160 \div (8 \div 1) =$ 20

3

Fill in the results and colour the matching sections to find the hidden number.



The hidden number is 35.

$142 - 6 \times 7 =$ 100 $\quad (20 + 3) \times 8 =$ 184

$(120 - 40) \times 3 =$ 240 $\quad (140 + 7) \div 7 =$ 21

$(70 - 25 + 55) \times 2 =$ 200 $\quad 62 + 20 \times 4 =$ 142

$(30 + 8) \times 5 =$ 190 $\quad 30 \times 4 - 5 =$ 115

$(20 + 8) \times 7 =$ 196 $\quad 6 \times (30 + 2) =$ 192

4

Write the calculations in two ways, with and without brackets.

a) Seven children went to gather chestnuts. They gathered 56 kg. Three of the children just played and did not collect any.

Share the chestnuts equally among the children who collected them. How many chestnuts will each child take home?

1) 56 kg ÷ (7 − 3) = 56 kg ÷ 4 2) 7 − 3 = 4; 56 kg ÷ 4 = 14 kg

Answer: Each child took home 14 kg of chestnuts.

b) Steve had £1 50 p. The 6 members in Steve's gang spent £1 80 p altogether on sweets. Each paid the same amount. How much did Steve have left?

1) 150 p − (180 p ÷ 6) = 120 p 2) 150 p ÷ 6 = 30 p;

150 p − 30 p = 120 p = £1.20

Answer: Steve had £1.20 left.

1

Fill in the missing quantities.

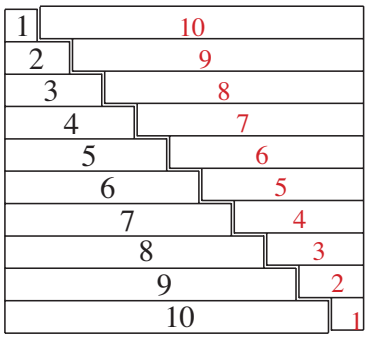
1 metre	30 cm	half a metre	600 mm	75 cm	8 cm	500 mm	10 cm
	70 cm	half a metre	400 mm	25 cm	92 cm	500 mm	90 cm

2

a) Add up the first 10 **positive** whole numbers.

1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55

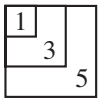
b) Find an easier way to do the calculation, using the diagram to help you.



(10 + 1) + (9 + 2) + (8 + 3) + (7 + 4) + (6 + 5)
= 5 × 11 = 55

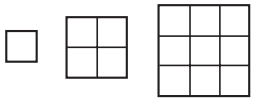
3

Continue the sequences by writing the next 6 terms. What is the rule?

a) 

1, 3, 5, 7, 9, 11, 13, 15, 17,

Rule: Add 2

b) 

1, 4, 9, 16, 25, 36, 49, 64, 81,

Rule: 1 × 1, 2 × 2, 3 × 3, 4 × 4, ..., etc.

4

Fill in the numbers missing from the number strips.

a)

85	93	101	109	117	125	133	141	149	157	165	173	181	189	197	205

b)

200	188	176	164	152	140	128	116	104	92	80	68	56	44	32	20

c)

121	130	139	148	157	166	175	184	193	202	211	220	229	238	247	256

5

Continue the sequences and write the rules.

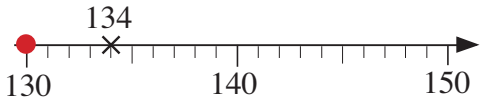
a) 100, 106, 103, 109, 106, 112, 109, 115, 112, 118, 115, ...

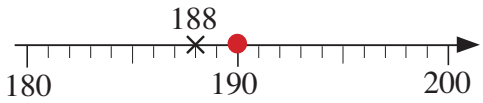
Rule: Add 6, subtract 3

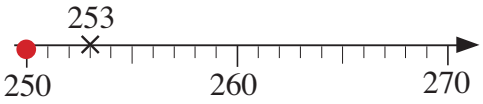
b) 150, 143, 157, 150, 164, 157, 171, 164, 178, 171, ...

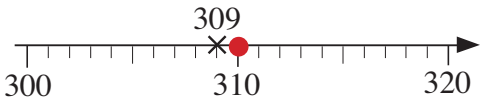
Rule: Subtract 7, add 14

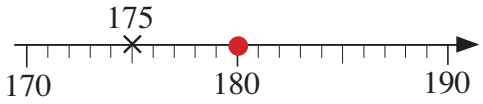
1 Draw a *red* dot at the whole ten nearest the number given.

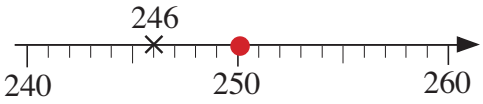
a) 

b) 

c) 

d) 

e) 

f) 

2 List the whole numbers for which the nearest whole ten would be:

a) 60 ≈ 55, 56, 57, 58, 59, 60, 61, 62, 63, 64

b) 100 ≈ 95, 96, 97, 98, 99, 100, 101, 102, 103, 104

c) 210 ≈ 205, 206, 207, 208, 209, 210, 211, 212, 213, 214

3 Which digits can be written instead of the squares so that the nearest whole ten is 260? List all the possible 3-digit numbers. (≈ means *nearly equal to*)

a) □52 ≈ 260 None possible

b) □64 ≈ 260 264

c) 2□5 ≈ 260 255

d) 2□3 ≈ 260 263

e) 25□ ≈ 260 255, 256, 257, 258, 259

f) 26□ ≈ 260 260, 261, 262, 263, 264

4 Two different numbers can be **rounded** to 70 as the nearest whole ten.

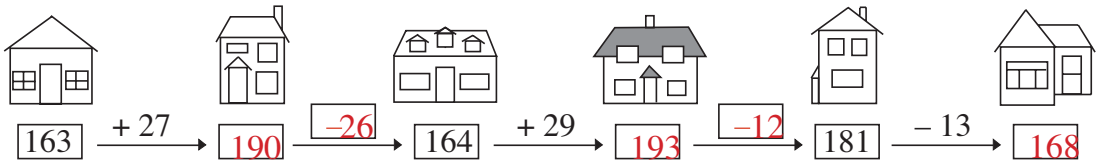
a) Is it possible that both numbers are less than 70?
Yes; e.g. 65 and 66

b) Is it possible that one of the numbers is 10 less than the other?
No

c) Is it possible that one of them has 5 and the other has 0 as the units digits?
Yes; 65 and 70

d) Is it possible that both numbers are whole tens?
No

1 Fill in the missing numbers and signs.



2 List the numbers which make the statement true.

$170 < \boxed{?} + 40 < 190 - 15$ $\boxed{}$: 131, 132, 133, 134 .....

3 Write the answers as Roman numerals.

a) CXIII – XI = CII b) LXXXI + IX = XC c) CCX + L = CCLX

d) XL × II = LXXX e) XLII ÷ VII = VI f) LX + XL = C

4 E.g:

1	2	3
8	9	4
7	6	5

Using each of the numbers 1 to 9 once only, make an **anti-magic square**.

The sums of the numbers along each row, column and diagonal must all be different.

5 Write the calculation **without** brackets so that the result is the same.

a) 147 – (50 – 6) = 103 147 – 50 + 6 .....

b) 200 + (66 – 9) = 257 200 + 66 – 9 .....

c) 135 – (40 – 12) = 107 135 – 40 + 12 .....

d) (20 – 3) × 7 = 119 20 × 7 – 3 × 7 .....

e) (120 + 50) ÷ 10 = 17 120 ÷ 10 + 50 ÷ 10 .....

6 Draw over the parts of the number line which can be **rounded** to the same whole ten as the number marked. Label the highest and lowest possible whole numbers.