

1

Change the quantities.

- a) 3 cl = ml b) 40 ml = cl
 7 cl = ml 320 ml = cl
 12 cl = ml 400 ml = cl
 20 cl = ml 1000 ml = cl
 105 cl = ml 1540 ml = cl

2

Follow the example. Fill in the missing quantities.

- a) 45 ml = cl ml b) 1009 ml = cl ml
 145 ml = cl ml 1209 ml = cl ml
 76 ml = cl ml 1054 ml = cl ml
 376 ml = cl ml 1230 ml = cl ml
 999 ml = cl ml 1999 ml = cl ml

3

An adult needs about 2 litres of water per day. Half of this amount is contained in food and other liquids.

- a) If a man drinks the same amount of water 4 times per day to make up the extra, how much water should he drink each time?
 Half of 2 litres: **1 litre** Litres remaining: **.1**
 Amount in each drink: **. . 25 cl**
- b) How much water should he drink each time if he drinks 5 times per day?
 **1 litre ÷ 5 = 100 cl ÷ 5 = 20 cl**

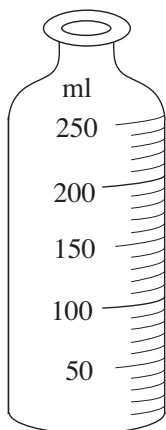
4

Sue and Jane share 2 litres of orange juice between them. Complete the table.

S	1 litre	half a litre	130 cl	70 ml	1170 ml	115 cl	600 ml	0 cl
J	1 litre	1 and a half litres	70 cl	1930 ml	830 ml	85 cl	1400 ml	200 cl

Rule: $S = 2 - J$ $J = 2 - S$ $S + J = 2$

1



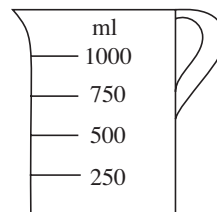
This baby's bottle has marks at every 10 ml up to 250 ml.

- a) How many marks are on the bottle? **25**.....
- b) How much milk will be in the bottle if it is level with:
 - i) the 5th mark **$5 \times 10 \text{ ml} = 50 \text{ ml}$**
 - ii) the 7th mark **$7 \times 10 \text{ ml} = 70 \text{ ml}$**
 - iii) the 10th mark **$10 \times 10 \text{ ml} = 100 \text{ ml}$**
 - iv) the 20th mark? **$20 \times 10 \text{ ml} = 200 \text{ ml}$**

2

How many 5 cl glasses of water would it take to fill up this measuring jug to:

- a) the 1st mark **$25 \text{ cl} \div 5 \text{ cl} = 5 \text{ glasses}$**
- b) the 2nd mark **$50 \text{ cl} \div 5 \text{ cl} = 10 \text{ glasses}$**
- c) the 3rd mark **$75 \text{ cl} \div 5 \text{ cl} = 15 \text{ glasses}$**
- d) the 4th mark? **$100 \text{ cl} \div 5 \text{ cl} = 20 \text{ glasses}$**





3

Complete the table.

ml	1200	2000	800	1230	1500	1900	1850
cl	120	200	80	123	150	190	185
10 cl	12	20	8	12 cl 3 ml	15	19	18 cl 5 ml
litres	$1 \text{ and } 2 \text{ tenths}$	2	8 tenths	$1 \text{ and } 23 \text{ hundredths}$	$1 \text{ and } 5 \text{ tenths}$	$1 \text{ and } 9 \text{ tenths}$	$1 \text{ and } 85 \text{ hundredths}$

4

Elephant drank 4 more litres of water than *Rhino*. Complete the table.

	35 litres	51 litres	33 and a half litres	1350 cl	32 litres 20 cl	23 and 3 tenths litres	41.3 litres
	31 litres	47 litres	29 and a half litres	950 cl	28 litres 20 cl	19 and 3 tenths litres	37.3 litres

Rule: $E = R + 4 \text{ litres}$ $R = E - 4 \text{ litres}$ 4 litres = $E - R$

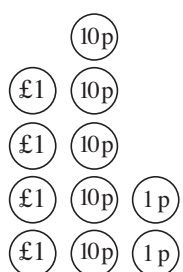
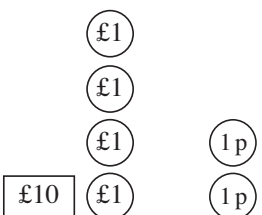
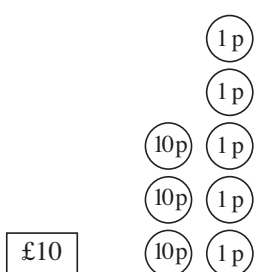
5

Write the rule and complete the table. *Rule:* **Number B is number A rounded to nearest 10.**

A	36 ml	23 cl	1214 l	141 ml	716 cl	325 l	996 ml	102 cl	450 l
B	40 ml	20 cl	1210 l	140 ml	720 ml	330 l	1000 ml	100 cl	450 l

1

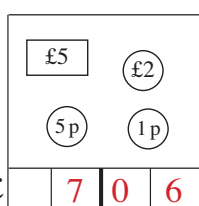
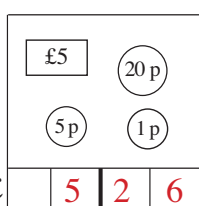
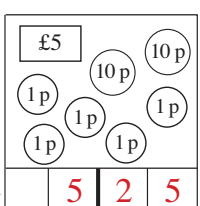
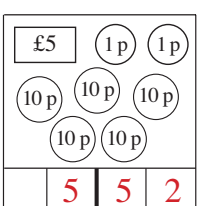
How much money is in each picture? Write the amount in pence.

a)  b)  c) 

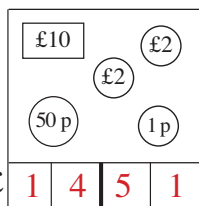
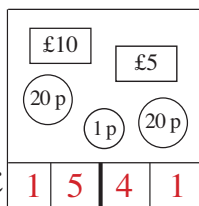
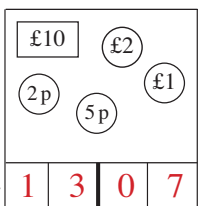
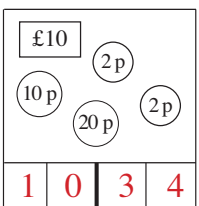
4 5 2 p **1 4 0 2** p **1 0 3 5** p

2

How much money is in each box? Which box in each pair has more? (<, >, =)

a)   b)  

£ **7 0 6** p > £ **5 2 6** p £ **5 2 5** p < £ **5 5 2** p

c)   d)  

£ **1 4 5 1** p < £ **1 5 4 1** p £ **1 3 0 7** p > £ **1 0 3 4** p

3

Exchange the money for (1p) coins.

a) 8 (10p) = .. **80** .. (1p) b) 8 (£1) = .. **800** .. (1p)

c) 12 (10p) = .. **120** .. (1p) d) 12 (£1) = .. **1200** .. (1p)

4

Exchange the money for (10p) coins.

a) 60 (1p) = ... **6** ... (10p) b) 9 (£1) = .. **90** ... (10p)

c) 180 (1p) = ... **18** ... (10p) d) 10 (£1) = .. **100** ... (10p)

e) 900 (1p) = ... **90** ... (10p) f) 12 (£1) = .. **120** ... (10p)

5

Exchange the money for (£1) coins.

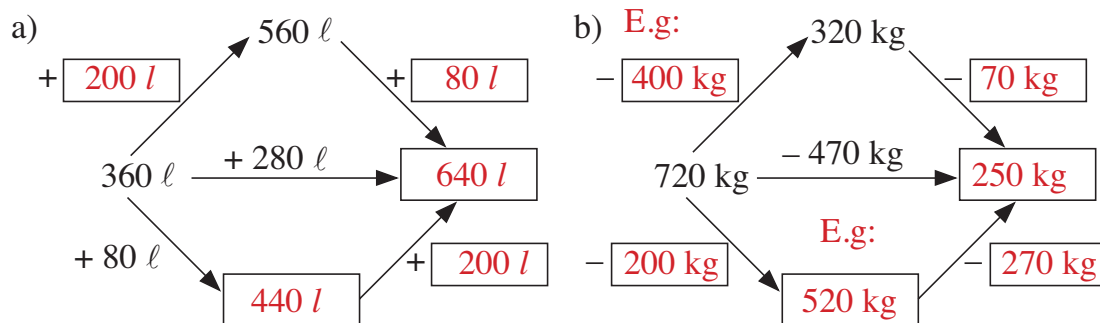
a) 100 (1p) = .. **1** ... (£1) b) 60 (10p) = ... **6** ... (£1)

c) 900 (1p) = .. **9** ... (£1) d) 100 (10p) = .. **10** ... (£1)

e) 1400 (1p) = .. **14** ... (£1) f) 150 (10p) = .. **15** ... (£1)

1

Fill in the missing values.



2

Fill in the missing quantities to make the equations correct.

- a) $260 \text{ cm} + 350 \text{ cm} = 360 \text{ cm} + 250 \text{ cm}$
- b) $190 \text{ g} + 470 \text{ g} = 480 \text{ g} + 180 \text{ g}$
- c) $470 \text{ ml} + 280 \text{ ml} = 480 \text{ ml} + 270 \text{ ml}$
- d) $260 \text{ m} + 340 \text{ m} = 431 \text{ m} + 169 \text{ m}$
- e) $750 \text{ l} - 160 \text{ l} = 740 \text{ l} - 150 \text{ l}$
- f) $630 \text{ mm} - 470 \text{ mm} = 640 \text{ mm} - 480 \text{ mm}$

3

Bella's piece of ribbon is 800 cm longer than Anne's. What length of ribbon could they each have? Complete the table and write the rule.

A	100 cm	200 cm	300 cm	600 cm	500 cm	1100 cm	0 cm	1200 cm	700 cm
B	900 cm	1000 cm	1100 cm	1400 cm	1300 cm	1900 cm	800 cm	2000 cm	1500 cm

Rule: $A = B - 800 \text{ cm}$ $B = A + 800 \text{ cm}$ $800 \text{ cm} = B - A$

4

Write the calculations and underline the answer.

- a) Emma has £700 and Freddy has £500. How much do they have altogether?
Total: $\text{£}700 + \text{£}500 = \underline{\text{£}1200}$
- b) George has £700. Harry has £500 less than George.
 - i) How much money does Harry have?
 $H = \text{£}700 - \text{£}500 = \underline{\text{£}200}$
 - ii) How much money do they have altogether?
Total: $\text{£}G + \text{£}H = \text{£}700 + \text{£}200 = \underline{\text{£}900}$

1

Round the amounts in millilitres to the nearest centilitre.

- | | |
|--|--|
| a) 293 ml \approx <input type="text" value="29"/> cl | b) 994 ml \approx <input type="text" value="99"/> cl |
| 295 ml \approx <input type="text" value="30"/> cl | 995 ml \approx <input type="text" value="100"/> cl |
| 298 ml \approx <input type="text" value="30"/> cl | 999 ml \approx <input type="text" value="100"/> cl |
| c) 1004 ml \approx <input type="text" value="100"/> cl | d) 1593 ml \approx <input type="text" value="159"/> cl |
| 1005 ml \approx <input type="text" value="101"/> cl | 1595 ml \approx <input type="text" value="160"/> cl |
| 1006 ml \approx <input type="text" value="101"/> cl | 1597 ml \approx <input type="text" value="160"/> cl |

2

Colin and Diane have saved £900 altogether. How much money could they each have saved? Complete the table and write the rule.

C	£100	£700	£500	£900	£700	£860	£10	£400	£890	£899
D	£800	£200	£400	£0	£200	£40	£890	£500	£10	£1

Rule: $C = £900 - D$ $D = £900 - C$ $£900 = C + D$

3

Write the calculations and underline the answer.

- a) Irene has £700 and Joanne has £500. Who has more? How much more?
 $£700 - £500 = £200$ Irene has £200 more than Joanne.
- b) Dan and Bob have £700 altogether. Dan has £500 more than Bob.
 How much money does Bob have?
 $(£700 - £500) \div 2 = £100$ Bob has £100. $(£600 + £100 = £700$..
 $£600 - £100 = £500)$

4

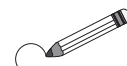
Which is more? Fill in the missing signs. Write the greater value in the table.

- a) 12 l 25 cl 12.5 l
- b) £150 24 p £15.24
- c) 6.59 m 655 cm
- d) 220 cl 2 l 86 cl
- e) 4 m 65 cm 4.6 m

	H	T	U	t	h
a)		1	2	5	0
b)	1	5	0	2	4
c)			6	5	9
d)			2	8	6
e)			4	6	5

1

0	11	20	37	44	59	62
73	88	95	100	111	126	135
142	157	160	173	184	191	200



- a) Circle in *red* the 3-digit numbers in the 2nd row.
- b) Circle in *green* the 3-digit even numbers in the 3rd column from the left.
- c) Circle in *yellow* the 2-digit odd numbers in the 3rd row from the bottom.
- d) Circle in *blue* the odd numbers in the 6th column from the right.

2

Write additions and subtractions about each picture.

<p>a)</p> <div style="border: 1px solid black; padding: 5px; display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>100 100 10</p> <p>100 50 1</p> <p>1 1</p> </div> <div style="text-align: center;"> <p>100</p> <p>50 1</p> <p>1</p> </div> </div> <p>$363 + 152 = 515$</p> <p>$152 + 363 = 515$</p> <p>$515 - 363 = 152$</p> <p>$515 - 152 = 363$</p>	<p>b)</p> <div style="border: 1px solid black; padding: 5px; display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>100 100 10</p> <p>50 50 1</p> <p>50 20</p> </div> <div style="text-align: center;"> <p>100 10</p> <p>20 1</p> <p>1 1</p> </div> </div> <p>$381 + 133 = 514$</p> <p>$133 + 381 = 514$</p> <p>$514 - 381 = 133$</p> <p>$514 - 133 = 381$</p>	<p>c)</p> <div style="border: 1px solid black; padding: 5px; display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>100 100 10</p> <p>100 20 50</p> <p>1 20</p> </div> <div style="text-align: center;"> <p>20</p> <p>5</p> <p>10</p> </div> </div> <p>$401 + 35 = 436$</p> <p>$35 + 401 = 436$</p> <p>$436 - 401 = 35$</p> <p>$436 - 35 = 401$</p>
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3

Estimate the sums by rounding the numbers to the nearest whole ten.

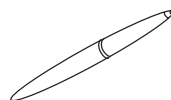
- a) $471 + 384 \approx 470 + 380 = 850$ b) $326 + 75 \approx 330 + 80 = 410$
- c) $1365 + 524 \approx 1370 + 520 = 1890$ d) $1723 + 255 \approx 1720 + 260 = 1980$

4

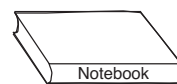
Katy went shopping.



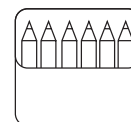
£5 73 p



£4 58 p



£3 12 p



£2 36 p

- a) Estimate to the nearest £ how much she spent if she bought:
 - i) the pen and the book .. $£5 + £3 \approx £8$
 - ii) the purse and the pencils .. $£6 + £2 \approx £8$
- b) Estimate to the nearest 10 p how much she spent if she bought:
 - i) the purse and the pen .. $£5.70 \text{ p} + £4.60 \text{ p} \approx £10.30 \text{ p}$
 - ii) the book and the pencils .. $£3.10 \text{ p} + £2.40 \text{ p} \approx £5.50 \text{ p}$

1

Estimate by using values rounded to the nearest 10 p. Find the exact amount in the picture and compare it with your estimate.

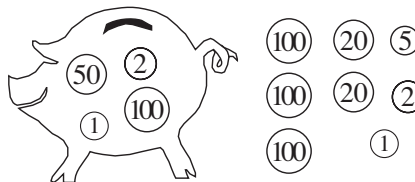
- a) Liz had £1 53 p in her piggy bank. She was given another £3 48 p. How much does she have in her piggy bank now?

Had: £ ~~1.53~~ p. ≈ £ ~~1.50~~ p.

Was given: £ ~~3.48~~ p. ≈ £ ~~3.50~~ p.

Now has: £ ~~5.01~~ p. ≈ £ ~~5.00~~ p.

£ ~~5.01~~ p. > £ ~~5.00~~ p.

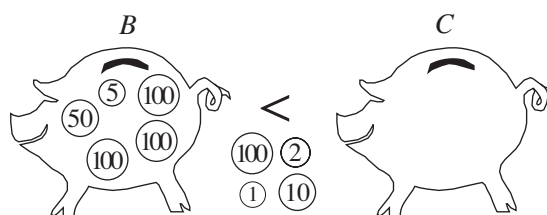


- b) Brian has £3 55 p. Carolyn has £1 13 p more than Brian. How much does Carolyn have?

B: £ ~~3.55~~ p. ≈ £ ~~3.60~~ p.

C: £ ~~4.68~~ p. ≈ £ ~~4.70~~ p.

£ ~~4.68~~ p. < £ ~~4.70~~ p.



2

Estimate each amount to the nearest 10 p, Then write down the exact amount.

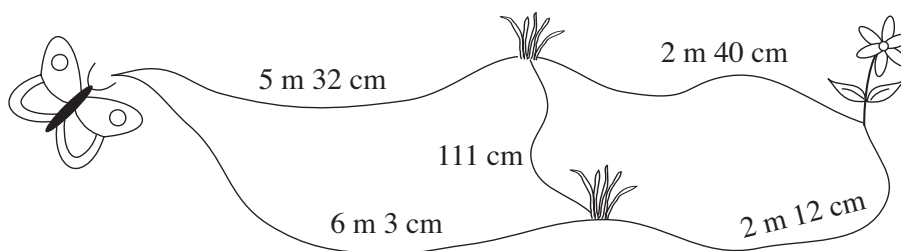
A:		Estimate ≈	<table border="1" style="display: inline-table;"><tr><td>4</td><td>5</td><td>0</td></tr></table>	4	5	0	Exact amount	<table border="1" style="display: inline-table;"><tr><td>4</td><td>5</td><td>2</td></tr></table>	4	5	2
4	5	0									
4	5	2									

B:		Estimate ≈	<table border="1" style="display: inline-table;"><tr><td>2</td><td>4</td><td>0</td></tr></table>	2	4	0	Exact amount	<table border="1" style="display: inline-table;"><tr><td>2</td><td>3</td><td>6</td></tr></table>	2	3	6
2	4	0									
2	3	6									

A + B:	Estimate ≈	<table border="1" style="display: inline-table;"><tr><td>6</td><td>9</td><td>0</td></tr></table>	6	9	0	Exact amount	<table border="1" style="display: inline-table;"><tr><td>6</td><td>8</td><td>8</td></tr></table>	6	8	8
6	9	0								
6	8	8								

3

How can the butterfly get to the flower? Calculate the length of possible routes.



$5\text{ m }32\text{ cm} + 2\text{ m }40\text{ cm} = 7\text{ m }72\text{ cm}$

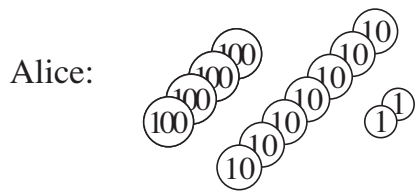
$5\text{ m }32\text{ cm} + 111\text{ cm} + 2\text{ m }12\text{ cm} = 8\text{ m }55\text{ cm}$

$6\text{ m }3\text{ cm} + 2\text{ m }12\text{ cm} = 8\text{ m }15\text{ cm}$

$6\text{ m }3\text{ cm} + 111\text{ cm} + 2\text{ m }40\text{ cm} = 9\text{ m }54\text{ cm}$

1

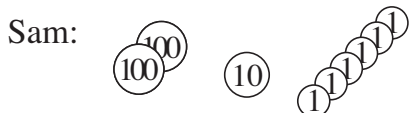
How much money do the two children have altogether? Complete the drawing, then estimate, calculate and check the answer.



Estimation

≈

4	7	0
---	---	---



Estimation

≈

2	2	0
---	---	---

Total:

Estimation

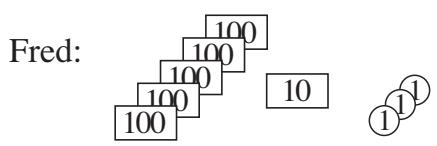
≈

6	9	0
---	---	---

	H	T	U
A	4	7	2
S	2	1	6
T	6	8	8

2

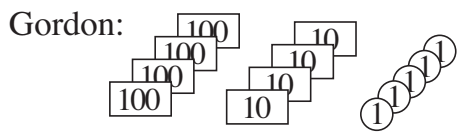
How much money do the two children have altogether? Complete the drawing, then estimate, calculate and check the answer.



Estimation

≈

5	1	0
---	---	---



Estimation

≈

4	5	0
---	---	---

Total:

≈

9	6	0
---	---	---

Calculation

	H	T	U
F	5	1	3
G	4	4	5
T	9	5	8

3

Write the numbers in the place value table. Estimate, then calculate the sum.

a) $136 + 312$

H	T	U
1	3	6
3	1	2
4	4	8

E:

4	5	0
---	---	---

b) $271 + 117$

H	T	U
2	7	1
1	1	7
3	8	8

E:

3	9	0
---	---	---

c) $632 + 324$

H	T	U
6	3	2
3	2	4
9	5	6

E:

9	5	0
---	---	---

d) $426 + 32$

H	T	U
4	2	6
	3	2
4	5	8

E:

4	6	0
---	---	---

4

Estimate, then calculate the sum. Write the estimate in detail.

$336 + 452$

E: $336 + 452 \approx 340 + 450 = 790$

C:

	3	3	6
+	4	5	2
	7	8	8

1

Estimate, then calculate the sums. Write the estimates in detail.

a) $642 + 207$

$E: 642 + 207 \approx 640 + 210 = 850$

	6	4	2
+	2	0	7
<hr/>			
	8	4	9

b) $508 + 161$

$E: 508 + 161 \approx 510 + 160 = 670$

	5	0	8
+	1	6	1
<hr/>			
	6	6	9

c) $397 + 501$

$E: 397 + 501 \approx 400 + 500 = 900$

	3	9	7
+	5	0	1
<hr/>			
	8	9	8

d) $43 + 945$

$E: 43 + 945 \approx 40 + 950 = 990$

		4	3
+	9	4	5
<hr/>			
	9	8	8

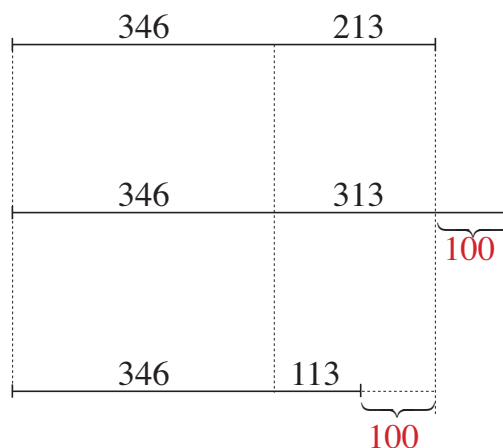
2

Calculate the sums. Look at the diagram to see how the numbers change.

	3	4	6
+	2	1	3
<hr/>			
	5	5	9

	3	4	6
+	3	1	3
<hr/>			
	6	5	9

	3	4	6
+	1	1	3
<hr/>			
	4	5	9

**3**

Find the data and write a plan. Estimate, calculate and check the result. Write the answer in a sentence.

A greengrocer ordered 264 kg of apples and 525 kg of bananas.

How many kg of fruit did he order altogether?

*Data:* $A: 264 \text{ kg}, B: 525 \text{ kg}$ *Plan:* $A + B: 264 \text{ kg} + 525 \text{ kg} E: 260 + 530 = 790$ *Answer:* $\text{He ordered } 789 \text{ kg of fruit altogether.}$

	2	6	4
+	5	2	5
<hr/>			
	7	8	9

1

David has £233 and James has £426. How much do they have altogether?
Complete the tables.

	Hundreds	Tens	Units
D	<input type="text" value="100"/> <input type="text" value="100"/>	<input type="text" value="10"/> <input type="text" value="10"/> <input type="text" value="10"/>	<input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="1"/>
J	<input type="text" value="100"/> <input type="text" value="100"/> <input type="text" value="100"/> <input type="text" value="100"/>	<input type="text" value="10"/> <input type="text" value="10"/>	<input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="1"/>

	H	T	U
£	2	3	3
£	4	2	6
£	6	5	9

	2	3	3
+	4	2	6
	6	5	9

2

Estimate, then calculate the sum. Show your estimate in detail.

b) $514 + 256$
E: $514 + 256 \approx 510 + 260 = 770$ *C:*

	5	1	4
+	2	5	6
	7	7	0

c) $614 + 257$
E: $614 + 257 \approx 610 + 260 = 870$ *C:*

	6	1	4
+	2	5	7
	8	7	1

d) $614 + 258$
E: $614 + 258 \approx 610 + 260 = 870$ *C:*

	6	1	4
+	2	5	8
	8	7	2

3

Find the data and write a plan. Estimate, calculate and check the result.
Write the answer as a sentence.

- a) Susan bought 2 rolls of remnant material to make curtains.
In one roll there was 6 m 5 cm and in the other there was 3 m 62 cm.
How many cm of material did Susan buy altogether?

Data: Roll A: 6 m 5 cm, Roll B: 3 m 62 cm
Plan: Roll A + Roll B *E:* $610 + 360 = 970$ *C:*

		6	0	5
+		3	6	2
		9	6	7

Answer: Susan bought 967 cm of material.

- b) Last month, Mum earned £1247 and Dad earned £551 more.
How much did they earn altogether last month?

Data: M: £1247, D: £1247 + £551
Plan: M + D *E:* $1250 + 1800 = 3050$ *C:*

		1	2	4	7
+		1	7	9	8
		3	0	4	5

Answer: They earned £3045 altogether.

1

Complete the drawing. Round the numbers to the nearest whole ten.
Estimate, then calculate the sum.

$342 + 753$ *E:* $342 + 753 \approx 340 + 750 = 1090$

Thousands	Hundreds	Tens	Units
1	0	9	5

$(10 \times 100 = 1000)$

Th	H	T	U
	3	4	2
	7	5	3
1	0	9	5

		3	4	2
		7	5	3
+		7	5	3
	1	0	9	5

2

Complete the drawing. Round the numbers to the nearest whole ten.
Estimate, then calculate the sum.

$537 + 259 \approx$ $537 + 259 \approx 540 + 260 = 800$

Hundreds	Tens	Units
7	8 + 1 = 9	6

$(16 \times 1 = 1 \text{ ten} + 6 \text{ units})$

H	T	U
5	3	7
2	5	9
7	9	6

	5	3	7
	2	5	9
+	2	5	9
	7	9	6

3

Fiona has 367 books and her brother Graham has 715 books. How many books do they have altogether?

Data: *F:* 367 books, *G:* 715 books *E:* $370 + 720 = 1090$

Th	H	T	U
	3	6	7
	7	1	5
1	0	8	2

Calculation:

		3	6	7
		7	1	5
		7	1	5
	1	0	8	2

Answer:

They had 1082 books altogether.

4

Round these numbers to the nearest

a) 10: i) $743 \approx$ 740 ii) $997 \approx$ 1000 iii) $550 \approx$ 550

b) 100: i) $835 \approx$ 800 ii) $666 \approx$ 700 iii) $850 \approx$ 900

1

Estimate, then calculate the sums. Write the estimates in detail.

a) $513 + 521$

$E: 513 + 521 \approx 510 + 520 = 1030$

		5	1	3
		+	5	2
			1	0
			3	4

C:

b) $634 + 723$

$E: 634 + 723 \approx 630 + 720 = 1350$

		6	3	4
		+	7	2
			3	5
			7	7

C:

c) $358 + 411$

$E: 358 + 411 \approx 360 + 410 = 770$

		3	5	8
		+	4	1
			7	6
			9	9

C:

d) $476 + 218$

$E: 476 + 218 \approx 480 + 220 = 700$

		4	7	6
		+	2	1
			6	9
			8	4

C:

e) $563 + 295$

$E: 563 + 295 \approx 560 + 300 = 860$

		5	6	3
		+	2	9
			8	5
			8	8

C:

2

Mum wants to make matching dresses for herself and her daughter, Julia. She needs 2 m 35 cm of material for her own dress and 1 m 25 cm for Judith's dress. How much material will she need to buy altogether?

Data: $M: 2 \text{ m } 35 \text{ cm} = 235 \text{ cm}$, $J: 1 \text{ m } 25 \text{ cm} = 125 \text{ cm}$

Estimate: $235 \text{ cm} + 125 \text{ cm} \approx 240 \text{ cm} + 130 \text{ cm} = 370 \text{ cm}$

Calculation: $235 + 125 = 360 \text{ cm}$ (Check: $360 \approx 370$)

Answer: Mum will need to buy 360 cm (= 3 m 60 cm) of material.

3

a) Kate used a 23 cm 5 mm piece of ribbon to tie up her hair. Linda used a piece 12 cm 5 mm less than Kate. What length was Linda's ribbon?

Data: $K: 23 \text{ cm } 5 \text{ mm} = 235 \text{ mm}$, $L: K - 125 \text{ mm}$

Estimate: $235 \text{ mm} - 125 \text{ mm} \approx 240 \text{ mm} - 130 \text{ mm} = 110 \text{ mm}$

Check: Calculated difference = estimate

Answer: The length of Linda's ribbon was 110 mm (= 11 cm).

b) Dad bought a piece of wood and cut it into two pieces, one 2 m 35 cm and the other 3 m 15 cm long. What length of wood did Dad buy?

Data: $2 \text{ m } 35 \text{ cm} = 235 \text{ cm}$, $3 \text{ m } 15 \text{ cm} = 315 \text{ cm}$

Estimate: $235 \text{ cm} + 315 \text{ cm} \approx 240 \text{ cm} + 320 \text{ cm} = 560 \text{ cm}$

Check: $235 \text{ cm} + 315 \text{ cm} = 550 \text{ cm}$ ($\approx 560 \text{ cm}$)

Answer: The length of wood Dad bought was 550 cm (= 5 m 50 cm).

1

Round the numbers to the nearest ten, then estimate and calculate the sums.

a) $428 + 541$

E:

	9	7	0
--	---	---	---

		4	2	8	
		+	5	4	1
			9	6	9

b) $1328 + 661$

E:

1	9	9	0
---	---	---	---

		1	3	2	8	
		+	6	6	1	
			1	9	8	9

c) $462 + 1417$

E:

1	8	8	0
---	---	---	---

			4	6	2	
		+	1	4	1	7
			1	8	7	9

2

Round the numbers to the nearest ten, then estimate and calculate the sums.

a) E:

1	7	6	0
---	---	---	---

		1	4	3	6	
		+		3	2	2
			1	7	5	8

E:

1	4	5	0
---	---	---	---

		1	3	6	2	
		+			9	2
			1	4	5	4

E:

	9	3	0
--	---	---	---

			5	7	2
		+	3	5	6
			9	2	8

E:

	9	6	0
--	---	---	---

			6	3	8
		+	3	2	2
			9	6	0

b) E:

1	1	7	0
---	---	---	---

			8	5	6	
		+	3	1	2	
			1	1	6	8

E:

1	2	7	0
---	---	---	---

			3	5	8	
		+	9	1	1	
			1	2	6	9

E:

	9	5	0
--	---	---	---

			8	6	2
		+		9	2
			9	5	4

E:

	9	2	0
--	---	---	---

			5	0	7
		+	4	0	8
			9	1	5

3

Uncle Tom gathered 468 kg of pears and 1335 kg of apples from the trees in his orchard. How much fruit did he gather altogether?

Data: P: 468 kg, A: 1335 kg

Plan: P + A: 468 kg + 1335 kg E: 500 + 1300 = 1800

Answer: He gathered 1803 kg of fruit altogether.

C:

			4	6	8	
		+	1	3	3	5
			1	8	0	3

4

Paul has a piece of wire 5 m 47 cm long but it is 602 cm shorter than he needs. What length of wire does Paul need?

Data: Has: 5 m 47 cm = 547 cm, Needs: 602 cm more

Plan: 547 cm + 602 cm E: 550 + 600 = 1150

Answer: Paul needs 1149 cm (= 11 m 49 cm) of wire.

C:

			5	4	7	
		+		6	0	2
			1	1	4	9

5



Mark Barry Bear's sums with a ✓ or a ✗. Correct his mistakes.

a)
$$\begin{array}{r} 221 \\ + 387 \\ \hline \end{array}$$
~~508~~ ✗
(608)

b)
$$\begin{array}{r} 532 \\ + 209 \\ \hline \end{array}$$
 741 ✓

c)
$$\begin{array}{r} 459 \\ + 111 \\ \hline \end{array}$$
 570 ✓

d)
$$\begin{array}{r} 833 \\ + 74 \\ \hline \end{array}$$
~~807~~ ✗
(907)

e)
$$\begin{array}{r} 567 \\ + 603 \\ \hline \end{array}$$
~~1180~~ ✗
(1170)

1

Fill in the missing digits. Check the addition.

a)

	3	2	4
+	2	5	2
	5	7	6

 b)

	2	4	9
+	4	2	1
	6	7	0

 c)

	3	5	2
+	2	2	4
	5	7	6

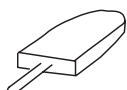
 d)


	3	2	7
+	7	5	7
1	0	8	4


2

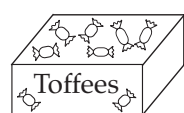
In how many different ways can Jenny choose from these treats?

A
B
C
D


 £1 62 p


 £1 36 p


 £5 45 p


 £4 94 p

Write how much she would pay if she bought

- a) at most two things:
- (1) A: ~~£1.62 p.~~ or B: ~~£1.36 p.~~ or C: ~~£5.45 p.~~ or D: ~~£4.94 p.~~
- (2) A + B = ~~£2.98 p.~~ or A + C = ~~£7.07 p.~~ or A + D = ~~£6.56 p.~~
 B + C = ~~£6.81 p.~~ or B + D = ~~£6.30 p.~~ or C + D = ~~£10.39 p.~~
- b) at least 3 things: (Do the calculations in your exercise books.)
- (3) A + B + C = ~~£8.43 p.~~ or A + B + D = ~~£7.92 p.~~ or
 A + C + D = ~~£12.01 p.~~ or B + C + D = ~~£11.75 p.~~ (4 ways)
- (4) ~~A + B + C + D = £13.37 p.~~ (1 way).....

3

a) Fill in the missing digits.

i)

	3	2	5
+	1	2	4
	1	5	6

 ii)

	1	3	5
+	9	1	3
	1	0	4

 iii)

	5	3	9
+	8	0	1
	1	3	4

 iv)

	5	0	7
+	1	1	8
	1	6	9

 v)

	9	7	5
+	3	6	1
	1	3	3

b) Write an addition which uses each of the digits from 0 to 9 once only.
 Try out different solutions. Use your exercise books if you need to.

E.g:

2	8	9		2	6	9		□	□	□		□	□	□	
+	7	6	4	+	7	8	4	+	□	□	□	+	□	□	□
	1	0	5		1	0	5		□	□	□		□	□	□

1

Freddy Fox was going home. He ran for 579 m, then had a rest. Then he ran for another 356 m and reached his house. How far away had he been from home?

Data: $579\text{ m} + 356\text{ m}$ E: $580 + 360 = 940$

Th	H	T	U
	5	7	9
	3	5	6
	9	3	5

Calculation:

		5	7	9
+		3	5	6
		9	3	5

Answer:

He had been 935 m from home.

2

24 cm 6 mm was cut from a roll of tape. If 254 mm was left, how long was the original roll of tape?

Data: $24\text{ cm } 6\text{ mm} + 254\text{ mm}$

Plan: $246\text{ mm} + 254\text{ mm}$ E: $250 + 250 = 500$

Answer: The original roll was 500 mm (50 cm) long.

C:

		2	4	6
+		2	5	4
		5	0	0

3

Practise addition. Check by adding up \uparrow , then down \downarrow .

a)

	5	0	3
1	2	4	3
+		4	3
	1	7	8
		8	9

b)

	4	1	1
	3	7	8
+	1	1	0
	1	8	8
		8	9

c)

		9	6
	5	0	3
+	2	0	3
	8	0	2

d)

	4	4	0
+	1	0	1
	1	5	1
	2	9	7
		7	0

e)

	3	0	7
	8	0	1
+	2	0	4
	1	3	1
		1	2

f)

	5	9	0
		2	7
+	4	4	2
	1	0	5
		5	9

g)

		2	5
	5	4	6
+	1	3	0
	1	8	7
		7	1

h)

	7	3	4
	3	0	0
+	5	0	7
	1	5	4
		4	1

i)

	2	6	6
+	1	1	1
	5	4	5
	1	9	2
		2	1

j)

	9	3	3
	9	5	5
+			5
	1	8	9
		9	3

4

Draw amounts to correspond to the numbers shown on the number lines.

Choose from

1000

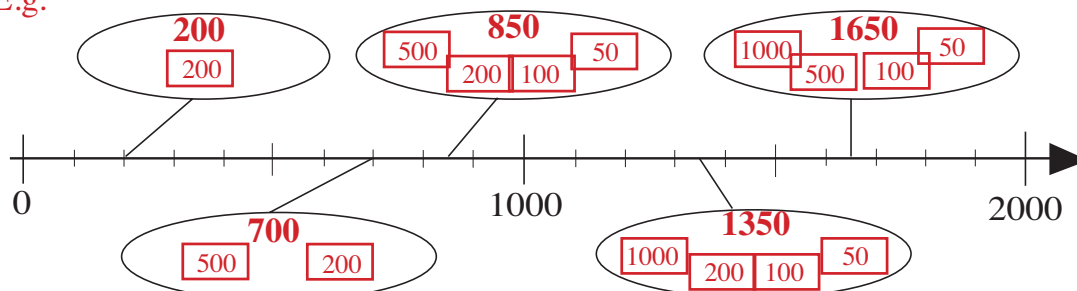
500

200

100

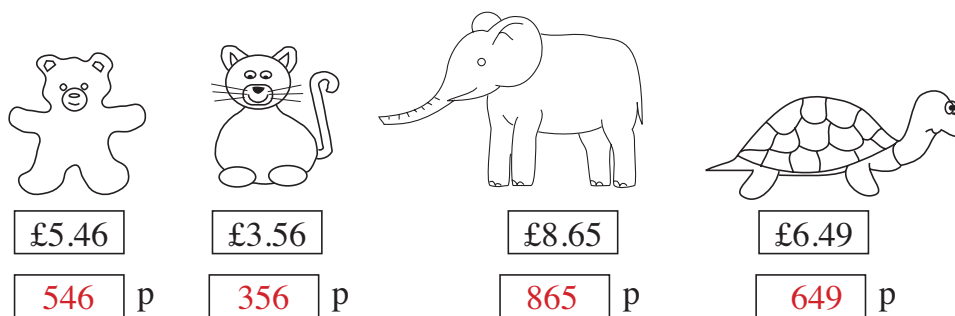
50

E.g:



1

Change the prices of the soft toys to pence.

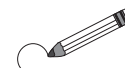


By rounding the prices to the nearest 10 p, estimate the difference between

- a) the bear and the cat: $546 \text{ p} - 356 \text{ p} \approx 550 \text{ p} - 360 \text{ p} = 190 \text{ p}$
- b) the elephant and the tortoise:
 $865 \text{ p} - 649 \text{ p} \approx 870 - 650 = 220 \text{ p}$
- c) the elephant and the cat:
 $865 \text{ p} - 356 \text{ p} \approx 870 - 360 = 510 \text{ p}$
- d) the tortoise and the bear:
 $649 \text{ p} - 546 \text{ p} \approx 650 - 550 = 100 \text{ p}$

2

Circle the correct answers.



- a) Estimate the difference between 678 and 432
- i) by rounding to the nearest 100: 100 200 **300** 400
- ii) by rounding to the nearest 10: 240 **250** 260 270
- b) Estimate the difference between 582 and 147
- i) by rounding to the nearest 100: 100 300 **500** 700
- ii) by rounding to the nearest 10: 420 **430** 440 540

3

Estimate the difference by rounding the numbers to the nearest 10:

- a) $674 - 466 \approx 670 - 470 = 200$
- b) $682 - 444 \approx 680 - 440 = 240$
- c) $639 - 451 \approx 640 - 450 = 190$
- d) $926 - 543 \approx 930 - 540 = 390$
- e) $918 - 550 \approx 920 - 550 = 370$

1

Fill in the missing numbers.

- 60	↖	340	620	530	310	900	470	783	939
- 160	↙	400	680	590	370	960	530	843	999
		240	520	430	210	800	370	683	839

2

Compare the two sides. Fill in the missing signs.

- a) $300 + 800$ $400 + 900$ b) $126 - 34$ $46 + 38$
 c) $1000 - 400$ $1200 - 400$ d) 6×40 60×4
 e) $1500 - 800$ $1400 - 900$ f) $420 \div 7$ $420 \div 70$






















3

Which is more? How many more? Write subtractions and inequalities.

- a) The smallest 4-digit number compared with the greatest 3-digit number.
 $1000 - 999 = 1$ $1000 > 999$
- b) The smallest 4-digit number compared with the smallest 3-digit number.
 $1000 - 100 = 900$ $1000 > 100$
- c) The smallest 4-digit number compared with the smallest 2-digit number.
 $1000 - 10 = 990$ $1000 > 10$
- d) The greatest 3-digit whole ten compared with the greatest 3-digit hundred.
 $990 - 900 = 90$ $990 > 900$
- e) The smallest 4-digit hundred compared with the smallest 4-digit whole ten.
 $1000 - 1000 = 0$ $1000 = 1000$
- f) The smallest whole hundred compared with the smallest whole ten.
 $100 - 10 = 90$ $100 > 10$

4

Fill in the missing numbers and write the rule. * Do these calculations below.

	670	1000	549	394	777	893	987	* 573	* 464	
	420	814	231	384	555	618	555	348	59	
	250	186	318	10	222	275	432	225	405	
	=		+				=		-	
	=		-				=		-	
	=		-				=		-	

5	7	3	
-	3	4	8
2	2	5	
4	6	4	
-	5	9	
4	0	5	

1

Complete the additions. Write a subtraction for each one.

a)	b)	c)	d)	e)
$\begin{array}{r} 543 \\ + 332 \\ \hline 875 \end{array}$	$\begin{array}{r} 156 \\ + 833 \\ \hline 989 \end{array}$	$\begin{array}{r} 217 \\ + 442 \\ \hline 659 \end{array}$	$\begin{array}{r} 632 \\ + 235 \\ \hline 867 \end{array}$	$\begin{array}{r} 1254 \\ + \quad 642 \\ \hline 1896 \end{array}$
$\begin{array}{r} 875 \\ - 543 \\ \hline 332 \end{array}$	$\begin{array}{r} 989 \\ - 156 \\ \hline 833 \end{array}$	$\begin{array}{r} 659 \\ - 217 \\ \hline 442 \end{array}$	$\begin{array}{r} 867 \\ - 632 \\ \hline 235 \end{array}$	$\begin{array}{r} 1896 \\ - 1254 \\ \hline 642 \end{array}$

2

Estimate the difference (by rounding to the nearest 10), then do the calculation.

876 – 345 E: ~~880~~ – ~~350~~ = 530

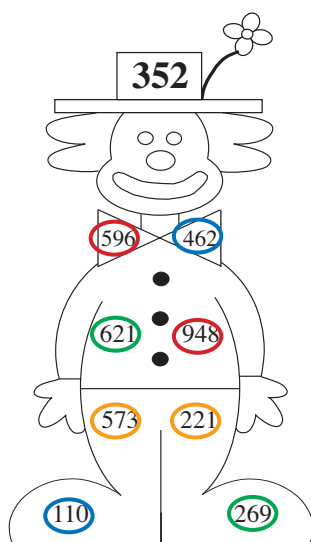
$$\begin{array}{r} 876 \\ - 345 \\ \hline 531 \end{array}$$

3

Practise subtraction.

a) i)	ii)	iii)	iv)
$\begin{array}{r} 386 \\ - 215 \\ \hline 171 \end{array}$	$\begin{array}{r} 386 \\ - 216 \\ \hline 170 \end{array}$	$\begin{array}{r} 386 \\ - 217 \\ \hline 169 \end{array}$	$\begin{array}{r} 386 \\ - 218 \\ \hline 168 \end{array}$
b) i)	ii)	iii)	iv)
$\begin{array}{r} 768 \\ - 245 \\ \hline 523 \end{array}$	$\begin{array}{r} 768 \\ - 265 \\ \hline 503 \end{array}$	$\begin{array}{r} 768 \\ - 285 \\ \hline 483 \end{array}$	$\begin{array}{r} 768 \\ - 305 \\ \hline 463 \end{array}$
c) i)	ii)	iii)	iv)
$\begin{array}{r} 504 \\ - 301 \\ \hline 203 \end{array}$	$\begin{array}{r} 504 \\ - 311 \\ \hline 193 \end{array}$	$\begin{array}{r} 504 \\ - 321 \\ \hline 183 \end{array}$	$\begin{array}{r} 504 \\ - 331 \\ \hline 173 \end{array}$

4



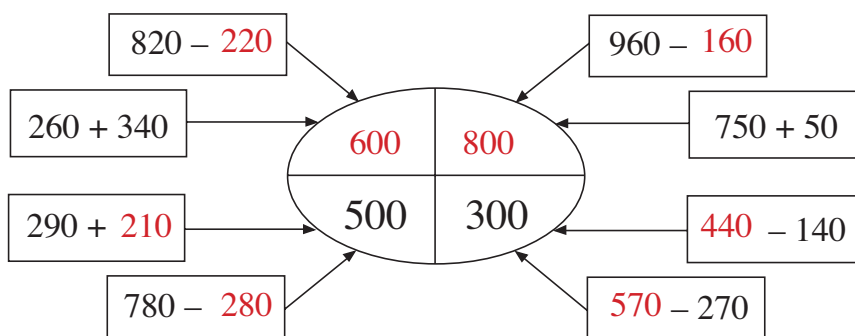
Use the numbers in the clown to write subtractions. The difference should be the number in his hat.

$$\begin{array}{r} 948 \\ - 596 \\ \hline 352 \end{array} \qquad \begin{array}{r} 462 \\ - 110 \\ \hline 352 \end{array}$$

$$\begin{array}{r} 621 \\ - 269 \\ \hline 352 \end{array} \qquad \begin{array}{r} 573 \\ - 221 \\ \hline 352 \end{array}$$

1

Fill in the missing numbers.



2

How much money did we have left after our holiday? Complete the drawing. Estimate by rounding to the nearest whole ten. Do the calculation and check it.

a)

Had: \approx

3	4	0
---	---	---

Estimation

Spent: \approx

2	3	0
---	---	---

Calculation

Had left:

100	10	1
-----	----	---

 \approx

1	1	0
---	---	---

Check

Th	H	T	U
	3	4	2
-	2	3	1
	<u>1</u>	<u>1</u>	<u>1</u>

Th	H	T	U
	1	1	1
+	2	3	1
	<u>3</u>	<u>4</u>	<u>2</u>

b)

Had: \approx

5	5	0
---	---	---

Estimation

Spent: \approx

3	4	0
---	---	---

Calculation

Had left:

100	100	10	10
-----	-----	----	----

 \approx

2	1	0
---	---	---

Check

Th	H	T	U
	5	4	5
-	3	4	2
	<u>2</u>	<u>0</u>	<u>3</u>

Th	H	T	U
	2	0	3
+	3	4	2
	<u>5</u>	<u>4</u>	<u>5</u>

3

Estimate the difference by rounding the numbers to the nearest whole ten. Do the calculation, then check it in your head with an addition.

a) i)

9	4	3	
-	6	1	2
	<u>3</u>	<u>3</u>	<u>1</u>

 ii)

7	8	5	
-	2	4	5
	<u>5</u>	<u>4</u>	<u>0</u>

 iii)

8	4	7	
-	3	4	6
	<u>5</u>	<u>0</u>	<u>1</u>

 iv)

1	8	6	4	
-	1	3	5	2
	<u>5</u>	<u>1</u>	<u>2</u>	

 v)

1	7	5	6	
-		6	5	2
	<u>1</u>	<u>1</u>	<u>0</u>	<u>4</u>

E:

3	3	0
---	---	---

 E:

5	4	0
---	---	---

 E:

5	0	0
---	---	---

 E:

5	1	0
---	---	---

 E:

1	1	1	0
---	---	---	---

b) i)

8	7	2	
-	3	5	6
	<u>5</u>	<u>1</u>	<u>6</u>

 ii)

7	8	0	
-	3	5	7
	<u>4</u>	<u>2</u>	<u>3</u>

 iii)

8	2	5	
-	6	0	9
	<u>2</u>	<u>1</u>	<u>6</u>

 iv)

7	3	5	
-	4	8	2
	<u>2</u>	<u>5</u>	<u>3</u>

 v)

9	0	3	
-	5	7	1
	<u>3</u>	<u>3</u>	<u>2</u>

E:

5	1	0
---	---	---

 E:

4	2	0
---	---	---

 E:

2	2	0
---	---	---

 E:

2	6	0
---	---	---

 E:

3	3	0
---	---	---

1

Estimate the difference by rounding the numbers to the nearest 10:

- a) $951 - 549 \approx \boxed{950} - \boxed{550} = \boxed{400}$
- b) $1364 - 652 \approx \boxed{1360} - \boxed{650} = \boxed{710}$
- c) $1374 - 648 \approx \boxed{1370} - \boxed{650} = \boxed{720}$
- d) $1324 - 657 \approx \boxed{1320} - \boxed{660} = \boxed{660}$
- e) $1763 - 450 \approx \boxed{1760} - \boxed{450} = \boxed{1310}$

2

A and B are two numbers.

H is an estimate of their difference by rounding them to the nearest 100.

T is an estimate of their difference by rounding them to the nearest 10.

Complete the table.

A	723	971	314	636	809	527	715
B	274	508	151	463	347	463	315
H	400	500	100	100	500	0	400
T	450	460	160	180	460	70	400

3

Estimate the difference by rounding to the nearest 10, then do the calculation.

- a) $854 - 403$ $E: \underline{850} - \underline{400} = 450$ $- \begin{array}{|c|c|c|} \hline 8 & 5 & 4 \\ \hline 4 & 0 & 3 \\ \hline 4 & 5 & 1 \\ \hline \end{array}$
- b) $785 - 64$ $E: \underline{790} - \underline{60} = 730$ $- \begin{array}{|c|c|c|} \hline 7 & 8 & 5 \\ \hline & 6 & 4 \\ \hline 7 & 2 & 1 \\ \hline \end{array}$

4

Solve each problem in your exercise book. Check your result. Write the answer.

- a) Sarah cut 2 m 17 cm from a 3 m 24 cm piece of lace to trim a cushion.
How much lace did she have left? $324 \text{ cm} - 217 \text{ cm} = 107 \text{ cm} = 1 \text{ m } 7 \text{ cm}$
Check: $107 \text{ cm} + 217 \text{ cm} = 324 \text{ cm}$
Answer: Sarah had 1 m 7 cm of lace left.

- b) Jim bought 5 litres of plant food. He used 2 litres 78 cl on his vegetables and 1 litre 25 cl on the other plants in his garden. How much plant food did he have left? $500 \text{ cl} - (278 \text{ cl} + 125 \text{ cl}) = 500 \text{ cl} - 403 \text{ cl} = 97 \text{ cl}$
Check: $97 \text{ cl} + 403 \text{ cl} = 500 \text{ cl}$
Answer: Jim had 97 cl of plant food left.

1

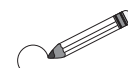
Fill in the missing numbers. Continue the pattern once more.

E.g:

$\begin{array}{r} 868 \\ -213 \\ \hline \end{array}$	$\begin{array}{r} 655 \\ -132 \\ \hline \end{array}$	$\begin{array}{r} 523 \\ -221 \\ \hline \end{array}$	$\begin{array}{r} 302 \\ -149 \\ \hline \end{array}$	$\begin{array}{r} 153 \\ -33 \\ \hline \end{array}$	$\begin{array}{r} 120 \\ -20 \\ \hline \end{array}$
$\begin{array}{r} 655 \\ \hline \end{array}$	$\begin{array}{r} 523 \\ \hline \end{array}$	$\begin{array}{r} 302 \\ \hline \end{array}$	$\begin{array}{r} 153 \\ \hline \end{array}$	$\begin{array}{r} 120 \\ \hline \end{array}$	$\begin{array}{r} 100 \\ \hline \end{array}$

2

One of these statements is not correct. Circle its sign.



- * The difference between 597 and 389 is 208.
- ⊗ The difference between 589 and 397 is less than one thousand.
- ⊙ The difference between 687 and 265 is an odd number.

3

Write down the data. Make a plan. Estimate, calculate and check the answer.

- a) There are 857 fruit trees in an orchard. 614 are apple trees and the rest are plum trees. How many plum trees are in the orchard?

Data: T: 857; A: 614

Plan: P: $T - A = 857 - 614$

Estimation: $860 - 610 = 250$

Answer: **There are 243 plum trees in the orchard.**

Calculation			Check		
8	5	7	2	4	3
-	6	14	+	6	14
	2	43		8	57

- b) Mary and Jane are collecting buttons. Mary has 857 buttons. Jane has 641 fewer buttons than Mary. How many buttons does Jane have?

Data: M: 857; J: $M - 641$

Plan: $857 - 641$

Estimation: $860 - 640 = 220$

Answer: **Jane has 216 buttons.**

Calculation			Check		
8	5	7	2	1	6
-	6	41	+	6	41
	2	16		8	57

4

- a) Alan and Barry have 945 stamps altogether. Complete the table to show how many stamps they could each have.

A	321	430	238	536	372	264	537	222	73	27
B	624	515	707	409	573	681	408	723	872	918

- b) Cindy and Diana are collecting 1 p coins. Cindy has 345 more coins than Diana. Complete the table to show how many coins they could each have.

C	756	468	876	754	909	662	1058	1068	1567	1628
D	411	123	531	409	564	317	713	723	1222	1283

1

Write down the data. Make a plan. Estimate, calculate and check the answer.

- a) A large barrel can hold 578 litres and a small barrel can hold 256 litres. How much more liquid can the large barrel hold than the small one?

Data: L: 578 ; S: 256

Calculation

Check

Plan: $L - S = 578 - 256$

Estimation: $580 - 260 = 320$ (litres)

Answer: The large barrel holds 322 litres more than the small one.

5	7	8	3	2	2
-	2	5	+	2	5
	3	2		5	7
		2			8

- b) The length of Molly's bedroom is 4 m 32 cm, which is 1 m 27 cm more than its width. What is the width of Molly's bedroom?

Data: L: 4 m 32 cm; W = L - 1 m 27 cm

Calculation

Check

Plan: $W = 432 \text{ cm} - 127 \text{ cm}$

Estimation: $430 - 130 = 300 \text{ cm}$

Answer: The width is 3 m 5 cm.

4	3	2	3	0	5
-	1	2	+	1	2
	3	0		4	3
		5			2

2

What number is:

Calculations

- a) the difference between 677 and 352? $677 - 352 = 325$
- b) 352 more than 677? $677 + 352 = 1029$
- c) 352 less than 677? $677 - 352 = 325$
- d) the sum of 677 and 352? $677 + 352 = 1029$

3

There were 236 women, 347 men, 163 boys and 148 girls on a beach.

- a) How many people were on the beach altogether?
- b) How many of them were adults?
- c) How many more adults than children were there?
- d) i) Were there more males or females on the beach?
- ii) How many more?

4

Complete the subtractions.

- a)

8	7	6
-	1	5
	7	2
	2	2
- b)

9	5	2
-	7	0
	2	4
	4	8
- c)

9	6	9
-	4	5
	5	1
	3	3
- d)

8	5	9
-	3	2
	5	3
	2	2
- e)

1	7	6	4
-	1	5	1
	2	4	6
		1	8

1

Complete the additions. Write a subtraction for each one.

a)	b)	c)	d)	e)
$\begin{array}{r} 455 \\ + 142 \\ \hline 597 \end{array}$	$\begin{array}{r} 373 \\ + 305 \\ \hline 678 \end{array}$	$\begin{array}{r} 554 \\ + 1325 \\ \hline 1879 \end{array}$	$\begin{array}{r} 1356 \\ + 250 \\ \hline 1606 \end{array}$	$\begin{array}{r} 553 \\ + 460 \\ \hline 1013 \end{array}$
$\begin{array}{r} 597 \\ - 142 \\ \hline 455 \end{array}$	$\begin{array}{r} 678 \\ - 305 \\ \hline 373 \end{array}$	$\begin{array}{r} 1879 \\ - 1325 \\ \hline 554 \end{array}$	$\begin{array}{r} 1606 \\ - 250 \\ \hline 1356 \end{array}$	$\begin{array}{r} 1013 \\ - 460 \\ \hline 553 \end{array}$

2

Complete the subtractions. Write the differences in increasing order.

a)	b)	c)	d)
$\begin{array}{r} 673 \\ - 321 \\ \hline 352 \end{array}$	$\begin{array}{r} 496 \\ - 272 \\ \hline 224 \end{array}$	$\begin{array}{r} 893 \\ - 628 \\ \hline 265 \end{array}$	$\begin{array}{r} 541 \\ - 352 \\ \hline 189 \end{array}$

..... **189 < 224 < 265 < 352**

3

Solve the problem in your exercise book. Check your result. Write the answer.

On Monday, the children picked 253 apples in their grandparents' orchard.
On Tuesday they picked 89 more apples than they did on Monday.

How many apples did the children pick altogether?

Answer: . **253 + 253 + 89 = 595** . . . **The children picked 595 apples altogether.**

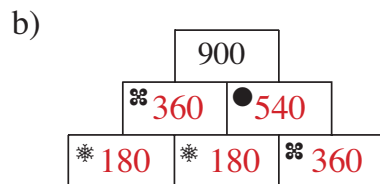
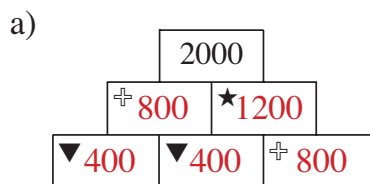
4

Use every number on a dice only once in each subtraction, so that the subtraction makes sense and the difference is:

a) at least 300	b) the smallest possible	c) between 200 and 300	
<i>E.g.:</i> $\begin{array}{r} 654 \\ - 231 \\ \hline 423 \end{array}$	$\begin{array}{r} 412 \\ - 365 \\ \hline \square 47 \end{array}$	<i>E.g.:</i> $\begin{array}{r} 653 \\ - 412 \\ \hline 241 \end{array}$	
d) even	e) the greatest possible	f) divisible by 10	
<i>E.g.:</i> $\begin{array}{r} 465 \\ - 321 \\ \hline 144 \end{array}$	$\begin{array}{r} 654 \\ - 123 \\ \hline 531 \end{array}$	$\begin{array}{r} \square \square \square \\ - \square \square \square \\ \hline \square \square \square \end{array}$	
		Impossible!	

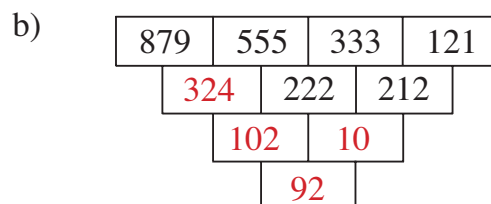
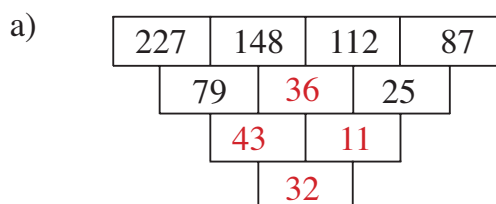
1

The sum of any two adjacent numbers is the number directly above them. The same sign means the same number. Fill in the missing numbers.



2

Work out the rule and fill in the missing numbers.



Rule: The difference between two adjacent numbers is the number directly below them.

3

Write your answer as an operation. What number is:

- a) 189 more than the sum of 372 and 476? $372 + 476 + 189 = 1037$
- b) 189 more than the difference between 372 and 476? $476 - 372 + 189 = 293$
- c) 189 less than the sum of 372 and 476? $372 + 476 - 189 = 659$
- d) 178 less than 4 times 80? $4 \times 80 - 178 = 142$
- e) 593 more than 1 sixth of 480? $480 \div 6 + 593 = 673$

4

Which numbers can be written instead of the letters to make the statements true?

- i) $589 + \boxed{a} = 832$ ii) $645 - \boxed{d} = 331$ iii) $\boxed{g} - 375 = 412$
 $a = 243$ $d = 314$ $g = 787$
- $589 + \boxed{b} > 832$ $645 - \boxed{e} \geq 331$ $\boxed{h} - 375 < 412$
 $b : 244, 245, 246, \dots$ $e : 314, 313, \dots$ $h : 786, 785, \dots$
- $589 + \boxed{c} \leq 832$ $645 - \boxed{f} < 331$ $\boxed{i} - 375 > 412$
 $c : 243, 242, \dots$ $f : 315, 316, \dots, 645$ $i : 788, 789, \dots$

5

The same letter stands for the same digit. What is the value of each letter? Write the sum with digits.

E.g:

O N E	1 8 9	3 2 4
+ F O U R	+ 5 1 6 0	+ 1 3 7 0
F I V E	<u>5 3 4 9</u>	<u>1 6 9 4</u>
		etc.

1

The same letter stands for the same digit within each part. What is the value of each letter? Try it out in your exercise books first.

$$\begin{array}{r} \text{A A} \\ \text{B B} \\ + \text{C C} \\ \hline \text{A B C} \end{array}$$

$$\begin{array}{r} \text{A B} \\ + \text{A B} \\ \hline \text{B C D} \end{array}$$

$$\begin{array}{r} \text{A A A B} \\ - \text{A A A} \\ \hline \text{C C C} \end{array}$$

At least 9 possible answers,
e.g:

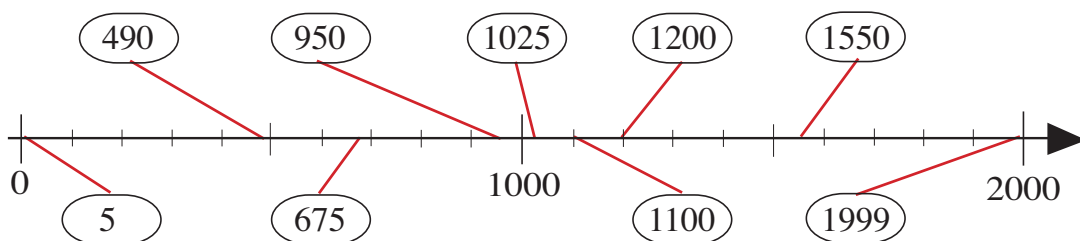
A = 1 B = 9 C = 8
(Unique answer)

A = 7 B = 1 C = 4
D = 2

A = 1 B = 0 C = 9
(Unique answer)

2

Join up the numbers to their approximate positions on the number line.



3

Practise addition. Check by adding up \uparrow , then down \downarrow .

a)	b)	c)	d)	e)
$\begin{array}{r} 1\ 6\ 0\ 1 \\ \\ + \\ \hline 1\ 9\ 8\ 7 \end{array}$	$\begin{array}{r} \\ 1\ 1\ 1\ 1 \\ + \\ \hline 2\ 3\ 3\ 2 \end{array}$	$\begin{array}{r} \\ \\ + \\ \hline 8\ 1\ 9 \end{array}$	$\begin{array}{r} \\ \\ + \\ \hline 2\ 2\ 7\ 0 \end{array}$	$\begin{array}{r} \\ \\ + \\ \hline 1\ 0\ 0\ 0 \end{array}$
f)	g)	h)	i)	j)
$\begin{array}{r} 1\ 3\ 9\ 0 \\ \\ + \\ \hline 1\ 9\ 7\ 9 \end{array}$	$\begin{array}{r} \\ \\ + \\ \hline 2\ 6\ 8\ 2 \end{array}$	$\begin{array}{r} 1\ 6\ 3 \\ \\ + \\ \hline 1\ 1\ 4\ 0 \end{array}$	$\begin{array}{r} 7\ 3\ 2 \\ \\ + \\ \hline 1\ 6\ 0\ 3 \end{array}$	$\begin{array}{r} 9\ 8\ 7 \\ \\ + \\ \hline 1\ 7\ 6\ 4 \end{array}$

4

Join up the equal values.

$589 - 194$ 505 500 $2000 - 1111$
 $367 + 183$ 550 150 $550 \div 5$
 $862 - 217$ 395 889 $1500 - 10 \times 100$
 $265 + 69 + 171$ 645 110 $1 \text{ tenth of } 1500$

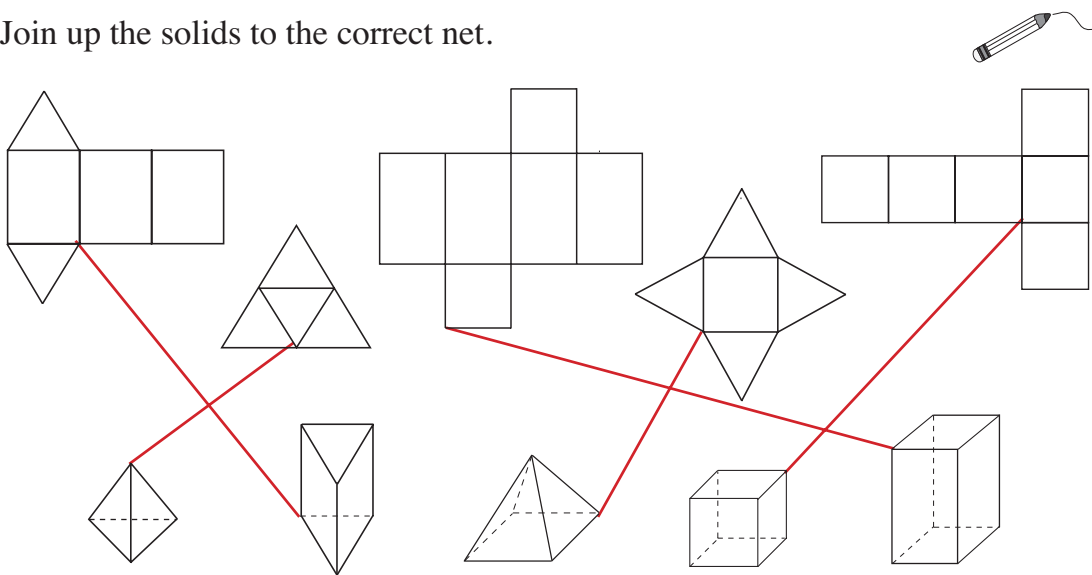
1

Count the number of faces, vertices and edges of each solid and fill in the table.

	Square-based pyramid	Triangle-based prism	Cuboid	Cube	Hexagonal prism	Triangle-based pyramid
Faces	5	5	6	6	8	4
Vertices	5	6	8	8	12	4
Edges	8	9	12	12	18	6

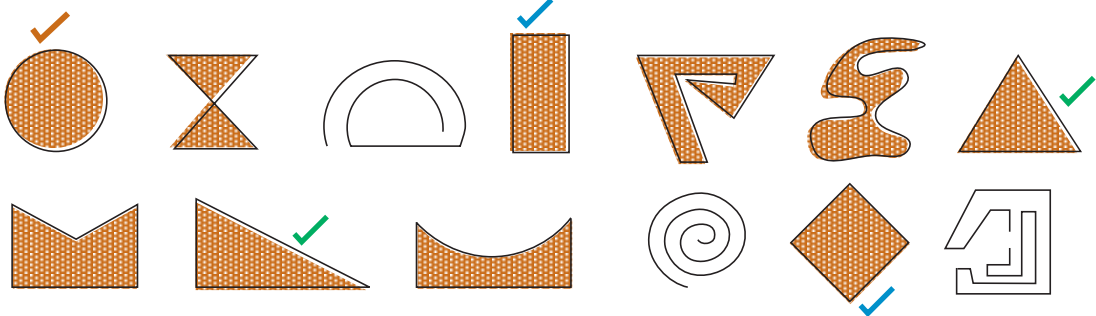
2

Join up the solids to the correct net.



3

Colour the plane shapes which are bordered by an unbroken line.



Tick any circles with *red*, any rectangles with *blue* and any triangles with *green*.

4

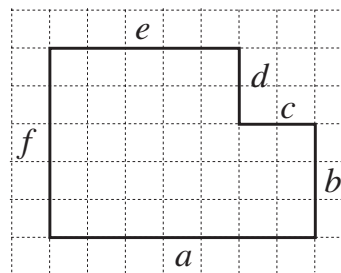
Draw the shapes described on a squared grid sheet (or in your exercise books).

- A line 8 units long which is divided into 3 segments, 2 of them equal.
- A rectangle which has perimeter 8 units.
- A plane shape which has area 8 square units and perimeter 14 units.

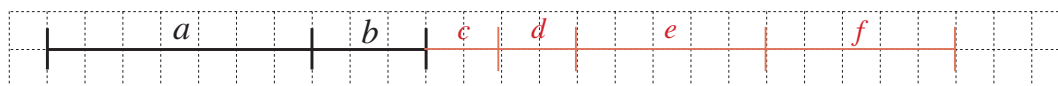
Accurate drawings required.

1

How long is the perimeter of this shape?



First draw the perimeter as one horizontal line.
Draw each side in letter order and label it.



$$7 + 3 + 2 + 2 + 5 + 5 = 24$$

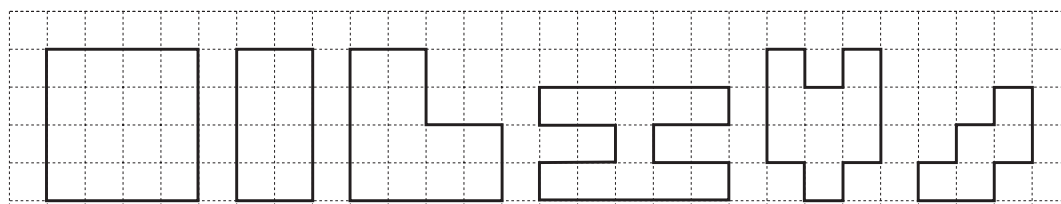
a) If the unit used is , then Perimeter =

b) If the unit used is , then Perimeter = cm

c) If the unit used is , then Perimeter =

2

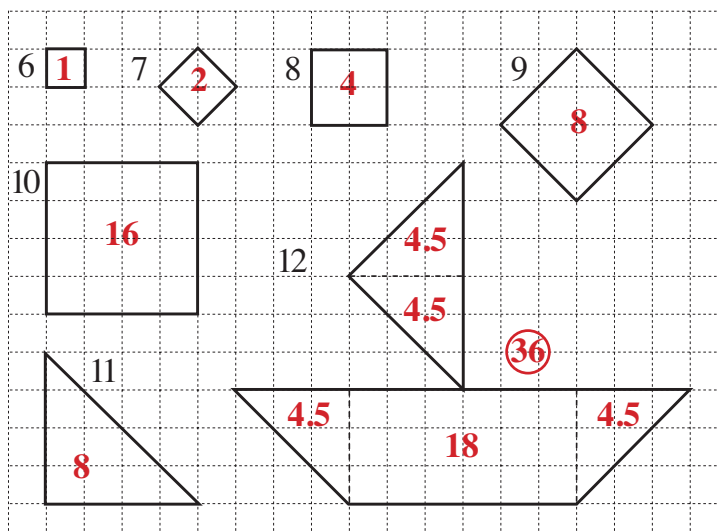
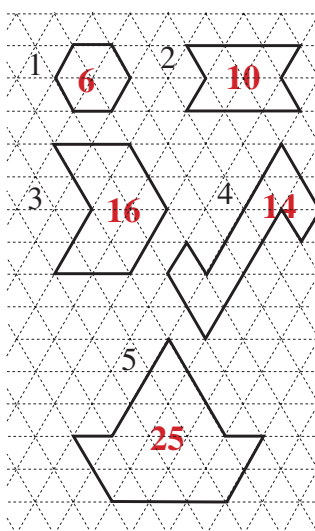
Complete the table to show the perimeter (P) and area (A) of each shape.



P 	16	12	16	24	16	12
A 	16	8	12	11	9	5

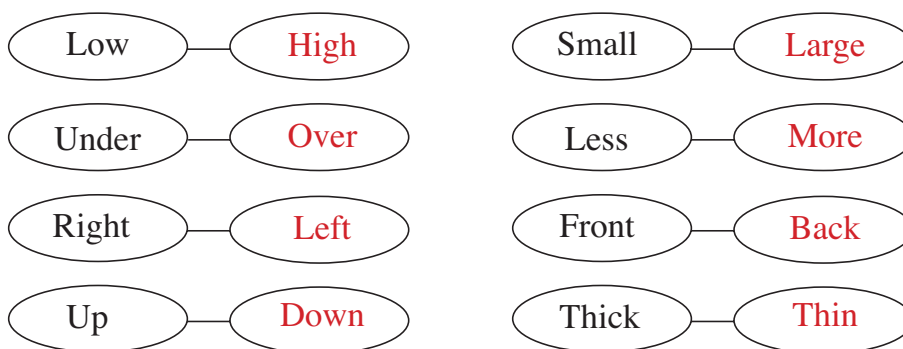
3

What is the area of each shape? Write the number of units inside each one.
(Shape 12 has been divided up into easier parts.)



1

Write the opposite part of each pair.



2

This is a plan of a classroom. Follow the instructions.

Tick:

Column 5 in green

Row 3 in red

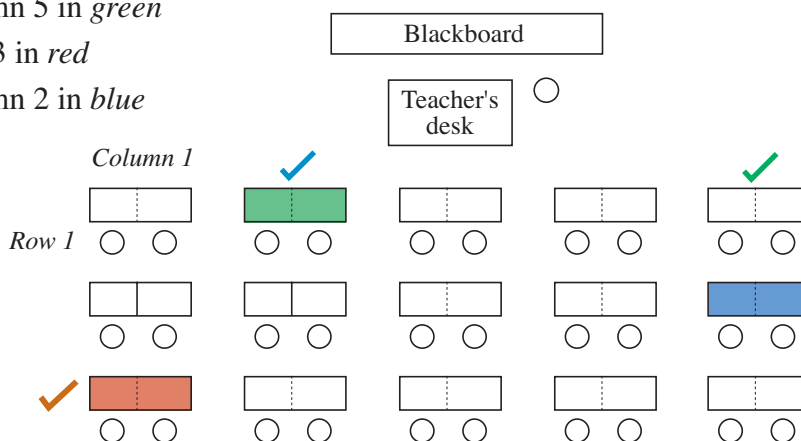
Column 2 in blue

Colour:

(C2, R1) in green

(C1, R3) in red

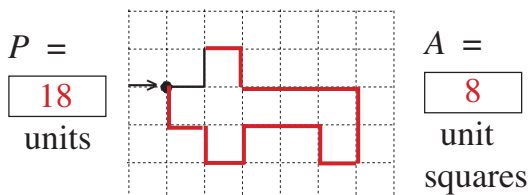
(C5, R2) in blue



3

Follow the instructions and draw the pictures.

- a) Right 1, Up 1, R1, Down 1, R3, D2, Left 1, U1, L2, D1, L1, U1, L1, U1.



- b) R3, U1, R2, D1, L1, D2, L4, U2.



Write instructions on how to draw these shapes.

- c) R1, D1, R1, U1, R1, D1, R1, U1, R1, D2, L1, D2, R1, D1, L5, U1, R1, U2, L1, U2

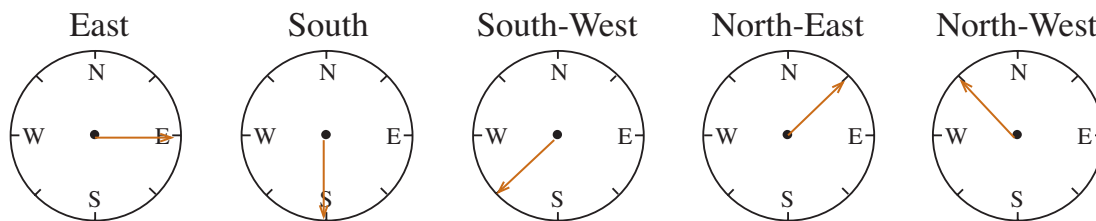
$P = 28$ units
 $A = 19$ unit squares

- d) U1, R1, U3, R1, D3, R3, U1, R1, D3, L1, U1, L3, D3, L1, U3, L1

$P = 30$ units
 $A = 14$ unit squares

1

Draw an arrow on each compass, so that it points in the given direction.



2

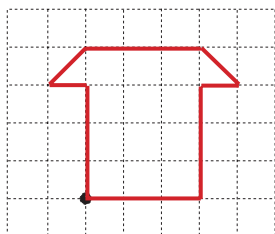
Start facing North. Follow the instructions. In which direction are you facing?

- a) Turn 2 right angles to the left, then 1 right angle to the right.
Compass point: **West**
- b) Turn 3 right angles to the right, then half a right angle to the left.
Compass point: **South West**
- c) Turn 2 right angles to the right, then 1 and a half right angles to the right.
Compass point: **North West**

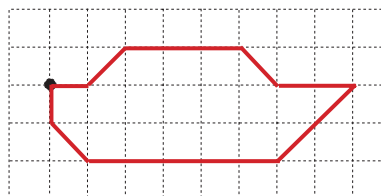
3

Start from the point. Follow the instructions and draw the shape.

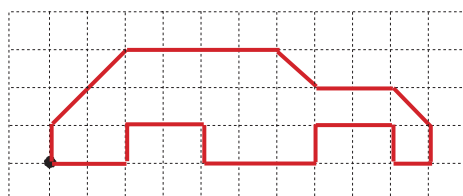
- a) N3, W1, NE1, E3, SE1, W1, S3, W3.



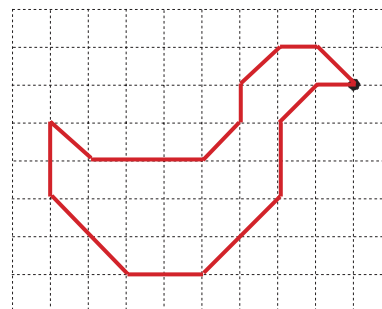
- b) E1, NE1, E3, SE1, E2, SW2, W5, NW1, N1



- c) N1, NE2, E4, SE1, E2, SE1, S1, W1, N1, W2, S1, W3, N1, W2, S1, W2.



- d) NW1, W1, SW1, S1, SW1, W3, NW1, S2, SE2, E2, NE2, N2, NE1, E1.



4

A man walked 1 km South, then 3 km West, then 1 km North. How far in which direction does he still have to walk to get back to his starting point?

3 km East

1

Continue the sequences for 4 terms in each direction. Write the rules.

- a) $340, 365, 390, 415, 440, 465, 490, 515, 540, 565, 590$, Rule: **Add 25**
 b) $245, 315, 385, 455, 525, 595, 665, 735, 805, 875, 945$, Rule: **Add 70**
 c) $1263, 1203, 1143, 1083, 1023, 963, 903, 843, 783, 723, 663$, Rule: **Subtract 60**
 d) $1140, 1105, 1070, 1035, 1000, 965, 930, 895, 860, 825, 790$, Rule: **Subtract 35**

2

Draw the shapes described on a squared grid sheet (or in your exercise books).

- a) A plane shape which has area 8 square units and perimeter 12 units.
 b) A plane shape which has area 8 square units and perimeter 18 units.
 c) A square which has perimeter 12 units.

3

Practise calculation.

- a) $197 + 100 \div 10 = 207$ b) $874 - 50 \times 5 = 624$
 c) $60 \times 6 + 512 = 872$ d) $270 \div 9 + 888 = 918$
 e) $(614 + 85) \div 3 = 233$ f) $320 \div (1000 - 968) = 10$
 g) $150 \times 2 + 720 = 1020$ h) $(390 - 70) \div 4 = 80$

4

Which positive, whole numbers can be written instead of the letters?

- i) $690 + [a] = 943$ ii) $865 - [d] = 553$ iii) $[g] - 597 = 634$
 $a = 253$ $d = 312$ $g = 1231$
 $300 + [b] < 412 - 99$ $865 - [e] \geq 442$ $[h] - 486 < 523$
 $b : 0, 1, 2, \dots, 12$ $e : 0, 1, \dots, 423$ $h : 1008, 1007, \dots$
 $456 + [c] = 832$ $865 - [f] < 442$ $[i] - 486 > 523$
 $c = 376$ $f : 424, 425, \dots$ $i : 1010, 1011, \dots$

5

Draw a picture on this grid using only straight lines.

Draw a dot at the starting point.

Write instructions on how to draw it.

