Section One:
Addition and Subtraction

1 Write in the missing number.

[2015]

$1 + 10 + \square = 100$

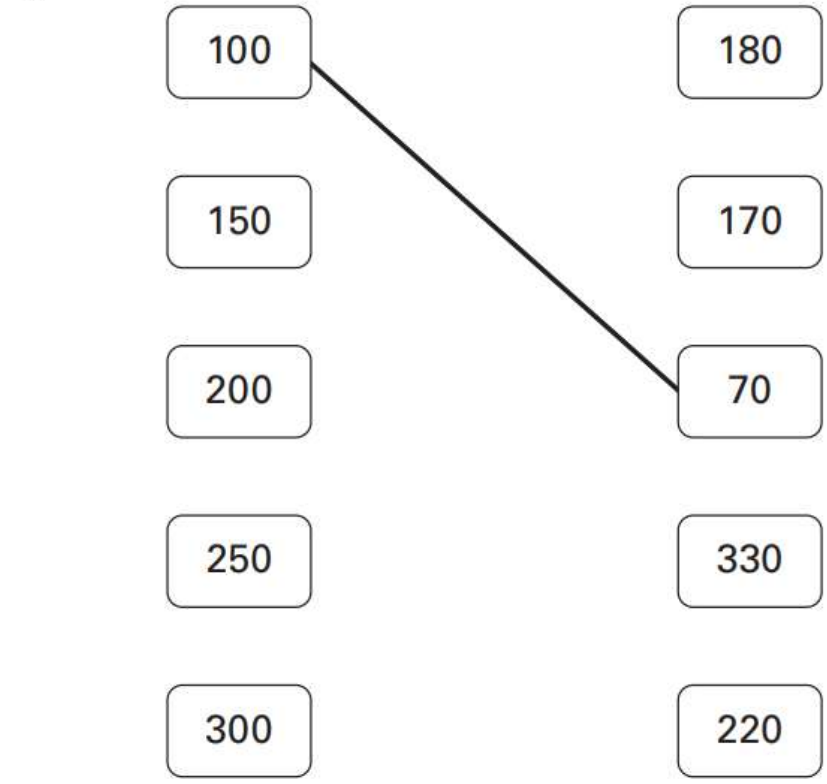
[1 mark]

---

2 Draw lines to join **all the pairs** of number cards which have a **difference of 30**

[2005]

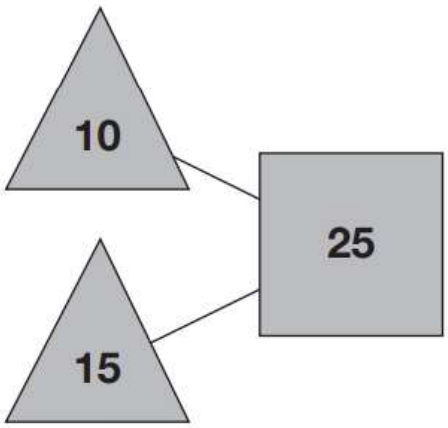
One has been done for you.



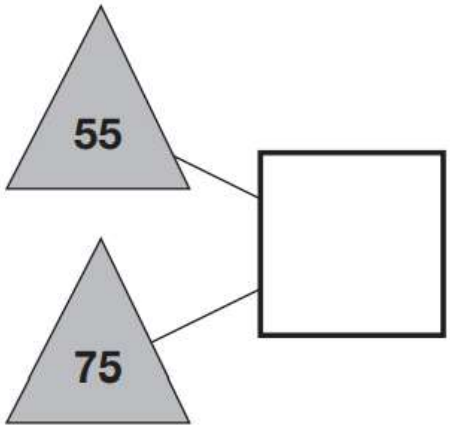
[2 marks]

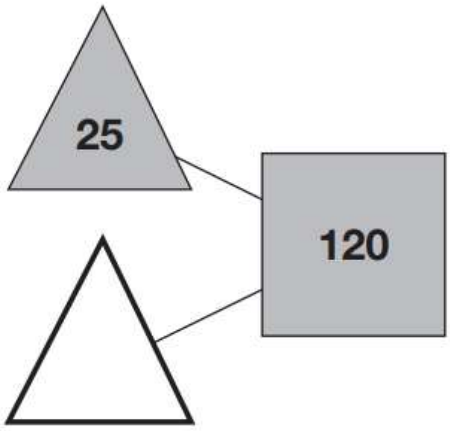
3 The numbers in the two triangles add up to the number in the square.

[2013]



Using the **same** rule, write in the missing numbers.





[2 marks]

17

5 Write the missing number.

[2016S]

One is done for you.

180 —is 20 more than→ 160

☐ —is 20 more than→ 237

[1 mark]

18

11 Circle **three** numbers that add to make a **multiple of 10**

[2005]

11 12 13 14 15 16 17 18 19

[1 mark]

---

12 Circle the numbers that add up to 100

[2005]

64 32 16 8 4 2 1

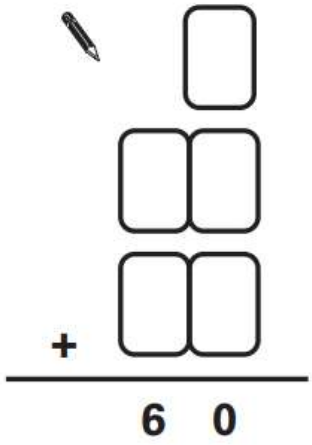
[1 mark]

---

13 Here are five digit cards.

[2003]

Use all five digit cards once to make this sum correct.



[1 mark]

19

19 Write the three missing digits to make this **addition** correct.

[2016]

$$\begin{array}{r} 1\ 5\ \square \\ +\ 4\ \square\ 4 \\ \hline \square\ 1\ 5 \end{array}$$

[2 marks]

---

20 Circle **three** numbers that add to make 750

[2014]

450 350 250 150 50

[1 mark]

---

21 Each missing digit in this sum is a **9** or a **1**

[2006]

Write in the missing digits.

$$\square\square + \square\square + \square\square = 201$$

[1 mark]

20

23 This table shows the heights of three mountains.

[2017]

Mountain	Height in metres
Mount Everest	8,848
Mount Kilimanjaro	5,895
Ben Nevis	1,344

How much higher is Mount Everest than the combined height of the other two mountains?

Show your method

[2 marks]

24 Dev has three discs.

[2011]

Each disc has a 7 on one side and an 8 on the other side.

He spins all the discs and adds the three scores together.

How many **different totals** can he get using the three discs?

[1 mark]

21

25 This table shows the number of people living in various towns in England.

[2016]

Town	Population
Bedford	82,448
Carlton	48,493
Dover	34,087
Formby	24,478
Telford	166,640

What is the **total** of the numbers of people living in Formby and in Telford?

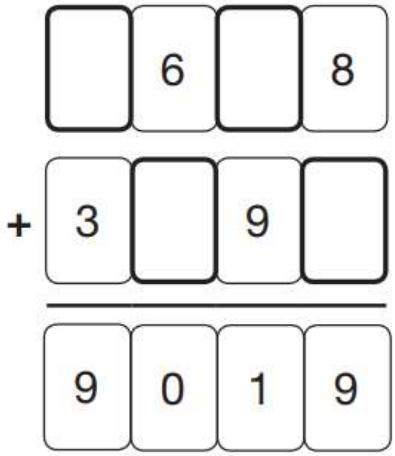
What is the **difference** between the numbers of people living in Bedford and in Dover?

[2 marks]

22

35 Write the four missing digits to make this **addition** correct.

[2016S]

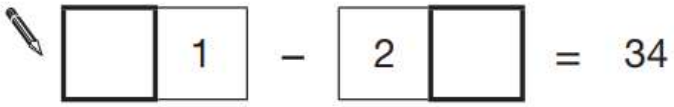


[1 mark]

23

38 Write the two missing digits.

[2015]



[1 mark]

24

43 Three whole numbers add up to 50

[2012]

Seb says,

'All three numbers must be even numbers.'

Is Seb correct?
Circle **Yes** or **No**.

Yes / No

Explain how you know.

[1 mark]

25

Section Two:
Multiplication and Division

1 [2017]

Write the missing number to make this **division** correct.

$$75 \div \square = 7.5$$

[1 mark]

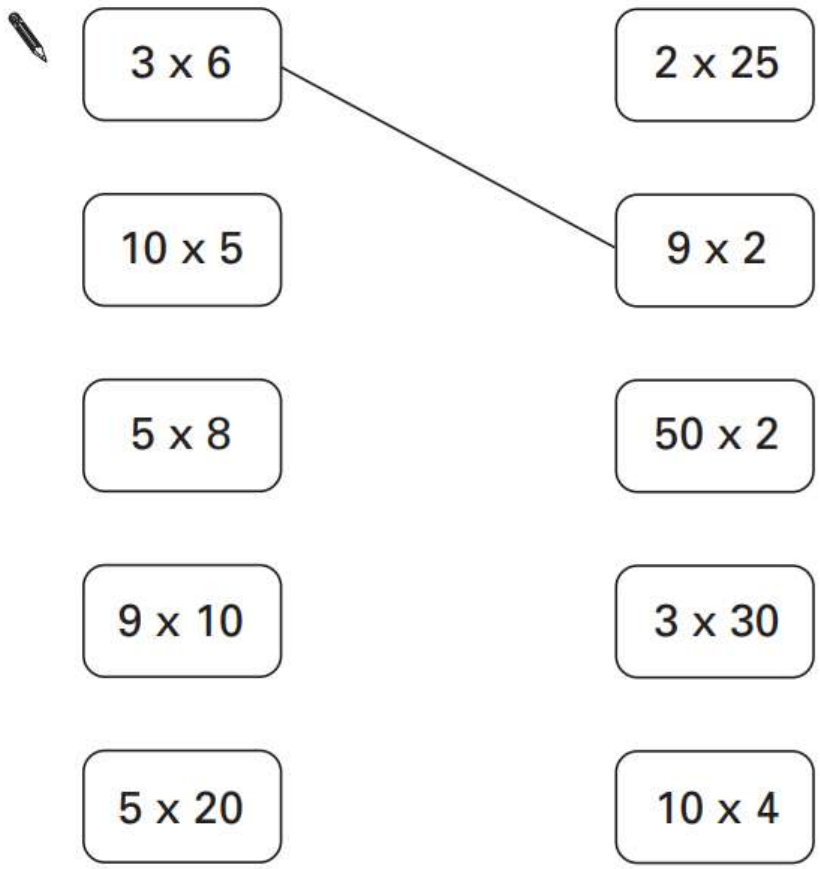
---

2 [2000]

Each card on the left matches one on the right.

Draw lines to match the cards which are **equal** in value.

One has been done for you.



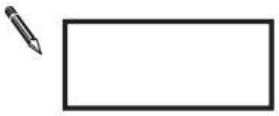
[2 marks]

3 [2013]

At a tournament there are 7 players in each team.

There are 112 players altogether.

How many teams is this?



[1 mark]

---

4 [2016S]

Here are six cards.

× 10	× 100	× 1000
÷ 10	÷ 100	÷ 1000

Use a card to complete each calculation.

5.3 ☐ = 0.53

5.3 ☐ = 5300

5.3 ☐ = 0.053

[2 marks]

29

8 [2017]

Circle the number that is **10 times** greater than nine hundred and seven.

9,700 907 9,007 970 9,070

[1 mark]

---

9 [2017]

Write the missing numbers to make this **multiplication** grid correct.

×	□	□
9	63	54
□	56	48

[1 mark]

---

10 [2013]

The number **20** goes in **two** of the squares of this multiplication grid.

Tick (✓) the two squares where 20 goes.

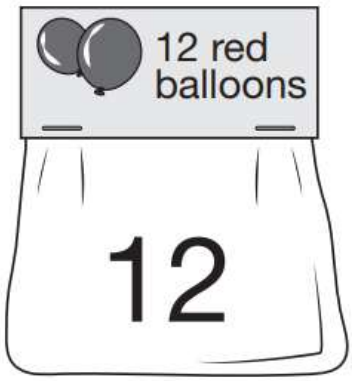
×	1	2	3	4	5
1					
2					
3					
4					
5					

[1 mark]

30

11

[2017]



Adam buys **6** bags of white balloons.

Chen buys **3** bags of red balloons.

Adam says,

'I have four times as many balloons as Chen.'

Explain why Adam is correct.

[1 mark]

12

[2016]

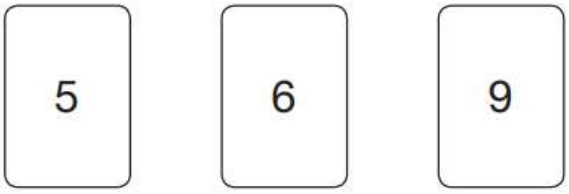
Write the missing number.

$$70 \div \square = 3.5$$

[1 mark]

13 Chen uses these digit cards.

[2017]

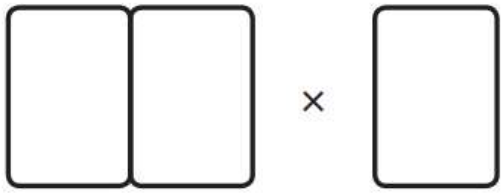


She makes a 2-digit number and a 1-digit number.

She multiplies them together.

Her answer is a **multiple of 10**

What could Chen's multiplication be?



[1 mark]

---

14 Write the **three** missing numbers in this multiplication grid.

[2014]

×	8	5	
4		20	28
5	40		35
3	24	15	21

[2 marks]

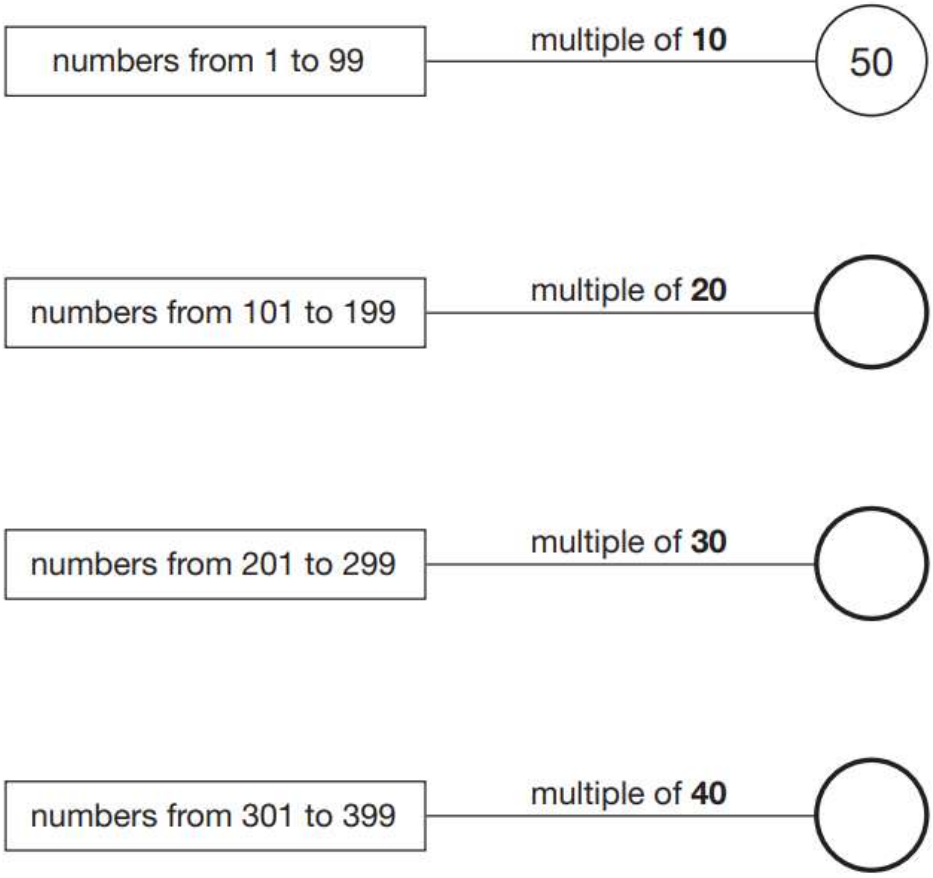
32

16

[2016S]

In the circles, write a multiple that belongs to each set.

One has been done for you.



[1 mark]

33

21 [2016]

Circle two numbers that multiply together to equal **1 million**.

200 2,000 5,000 50,000

[1 mark]

---

22 [2011]

Here are five number cards.

0.47	10	100	1000	4.07

Use **four** of the cards to complete these calculations.

47 ÷ ☐ = ☐

☐ × ☐ = 40.7

[2 marks]

34

25 [2016S]

Write the two missing digits to make this **long multiplication** correct.

$$\begin{array}{r} 4\square \\ \times\ \square 6 \\ \hline 246 \\ 820 \\ \hline 1066 \end{array}$$

[1 mark]

35

28 Here are five number cards.

[2015]

48	49	50	51	52

Use each card **once** to make every statement below correct.

☐ is a multiple of 3

☐ is a multiple of 4

☐ is a multiple of 5

☐ is a multiple of 6

☐ is a multiple of 7

[2 marks]

---

29 Three single-digit numbers multiply to make 504

[2012]

Write the missing numbers.

☐ × ☐ × ☐ = 504

[1 mark]

36

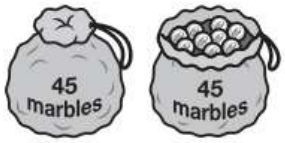
39

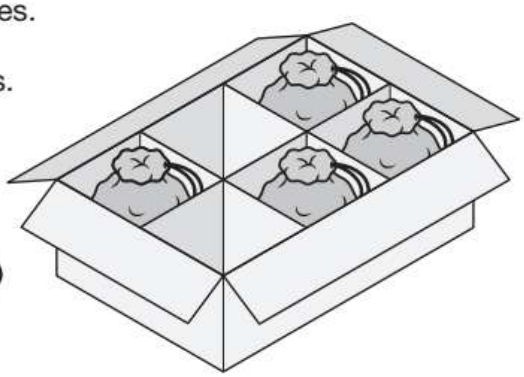
[2016]

A toy shop orders 11 boxes of marbles.

Each box contains 6 bags of marbles.

Each bag contains 45 marbles.





How many **marbles** does the shop order in total?

Show your method

[2 marks]

40

[2016]

$$5{,}542 \div 17 = 326$$

Explain how you can use this fact to find the answer to **18 × 326**

[1 mark]

2

[2016S]

A pack of paper has 150 sheets.

4 children each take 7 sheets.

How many sheets of paper are left in the packet?

Show your method

[1 mark]

38

5

[2017]

At the start of June, there were 1,793 toy cars in the shop.

During June,

- 8,728 more toy cars were delivered
- 9,473 toy cars were sold.

How many toy cars were left in the shop at the end of June?

Show your method

[2 marks]

39

1 Kirsty, Seb and Mina made toffee apples to sell at the school fair.

[2012]

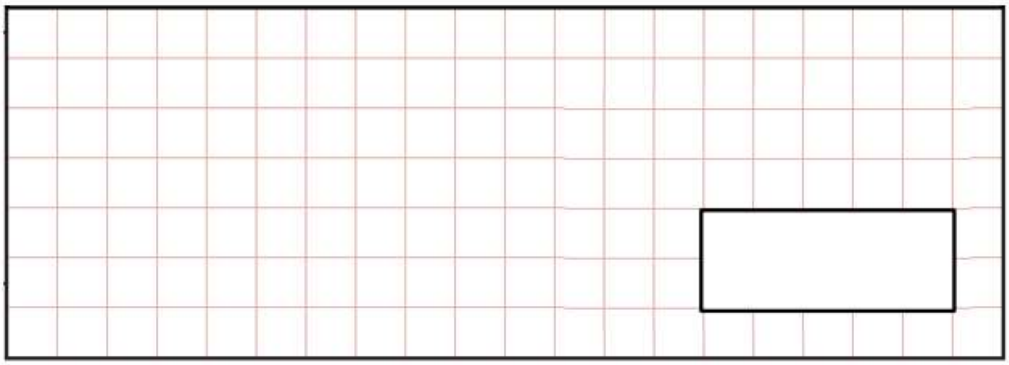
They made **80** toffee apples altogether.

Kirsty sold **12** toffee apples.

Seb sold **25** toffee apples.

Mina sold **17** toffee apples.

How many toffee apples were left?



Kirsty sold her 12 toffee apples for 50p each.

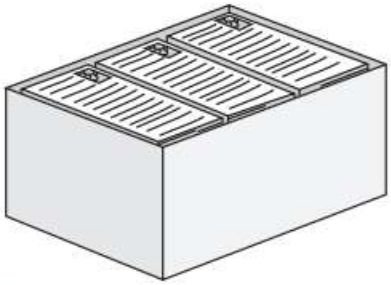
How much money did she collect?

[3 marks]

40

7

[2017]



There are 2,400 leaflets in a box.

William and Ally take 450 leaflets each.

Adam and Chen share the rest of the leaflets equally.

How many leaflets does Adam get?

Show your method

[2 marks]

8

[2012]

Mina has 5 more marbles than Kirsty.

Kirsty has 2 more marbles than Seb.

Altogether they have 30 marbles.

How many marbles does each child have?

Mina | Kirsty | Seb

[2 marks]

Section Three:
Order of Operations

1 Write the missing numbers.

[2012]

$57 + \square = 125$

$5 \times \square = 175$

[2 marks]

---

2 Write the correct sign **=**, **>** or **<** in each circle.

[2011]

$9 \times 3 \bigcirc 8 \times 4$

$9 - 3 \bigcirc 8 - 4$

$9 + 3 \bigcirc 8 + 4$

$9 \div 3 \bigcirc 8 \div 4$

[2 marks]

5 Write in the missing numbers.

[2006]

$35 \times \square = 140$

$633 - \square = 34$

[2 marks]

---

6 Write in the missing numbers.

[2004]

$\square + 85 = 200$

$4 \times \square = 120$

$120 - 51 = \square$

[2 marks]

---

7 Write in the missing numbers.

[2003]

$55 + \square = 120$

$600 \times 4 = \square$

[2 marks]

19 Here are five calculations.

[2012]

For each, put a tick (✓) in the box if the answer is **greater than 450**
Put a cross (✘) if it is not.

One has been done for you.

	greater than 450
46×10	✓
$149 + 137 + 158$	
$911 - 447$	
$863 \div 2$	
$16 \times 28\frac{1}{2}$	

[2 marks]

---

20 Each missing digit in these calculations is **2**, **5** or **7**

[2005]

Write in the missing digits.

You may use each digit more than once.

$\square + 18 = \square\square$

$\square\square \times 3 = \square\square$

[2 marks]

21 Write the missing numbers to make these calculations correct.

[2014]

$200 \times \square - 200 = 200$

$(100 - \square) \times 100 = 100$

[2 marks]

---

22 Write the correct sign **>**, **<** or **=** in each of the following.

[2005]

$(10 + 5) - 9 \quad \square \quad (10 + 9) - 5$

$3 \times (4 + 5) \quad \square \quad (3 \times 4) + 5$

$(10 \times 4) \div 2 \quad \square \quad 10 \times (4 \div 2)$

[2 marks]

---

23 Write in what the missing numbers could be.

[2001]

$(\square \div \square) + 90 = 100$

[1 mark]

48

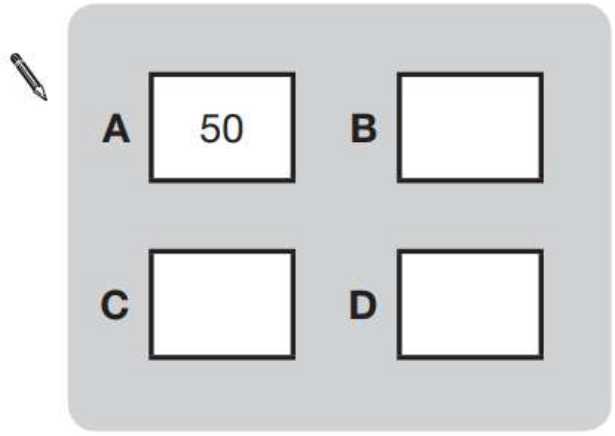
24 [2014]

The number in **A** is **twice** the number in **D**.

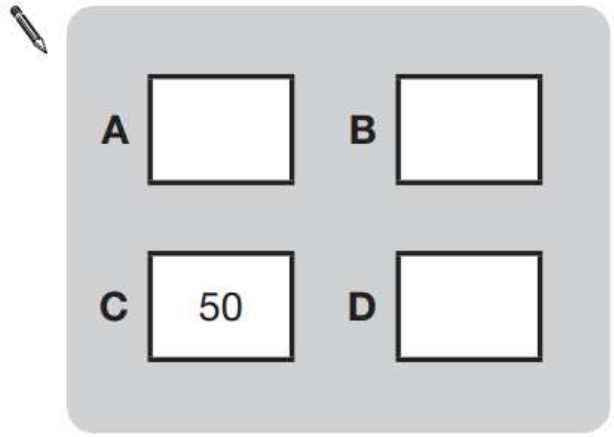
The number in **B** is **5 less** than the number in **C**.

The number in **D** is **10 more** than the number in **B**.

Write the missing numbers in this diagram.



Now use the same rule for this diagram.



[2 marks]

49

Section Four:
Negative Numbers

1 Put these temperatures in order, starting with the **lowest**.

[2015]

21°C −13°C −24°C 0°C 35°C

°C	°C	°C	°C	°C

lowest

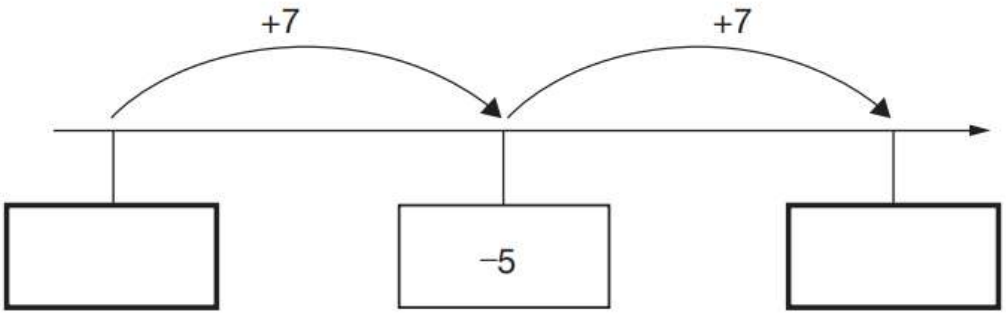
[1 mark]

---

2 Here is part of a number line.

[2016S]

Write the missing numbers in the boxes.

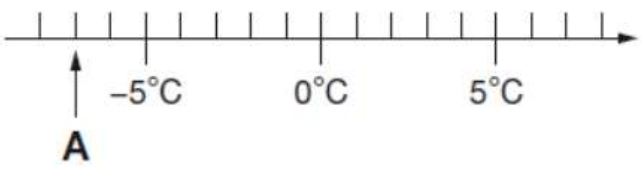


[1 mark]

---

3 Here is part of a temperature scale.

[New]



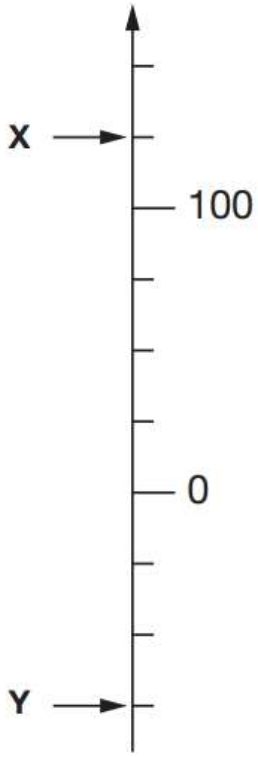
What is the temperature shown at **A**?

°C

[1 mark]

4 Here is part of a number line.

[2015]



What is the value of **X**?

X = ☐

What is the value of **Y**?

Y = ☐

[2 marks]

53

5 This table shows the temperature at 9am on three days in January.

[2016]

1st January	8th January	15th January
+ 5°C	− 4°C	+ 1°C

What is the difference between the temperature on 1st January and the temperature on 8th January?

°C

On 22nd January the temperature was 7 degrees lower than on 15th January.

What was the temperature on 22nd January?

°C

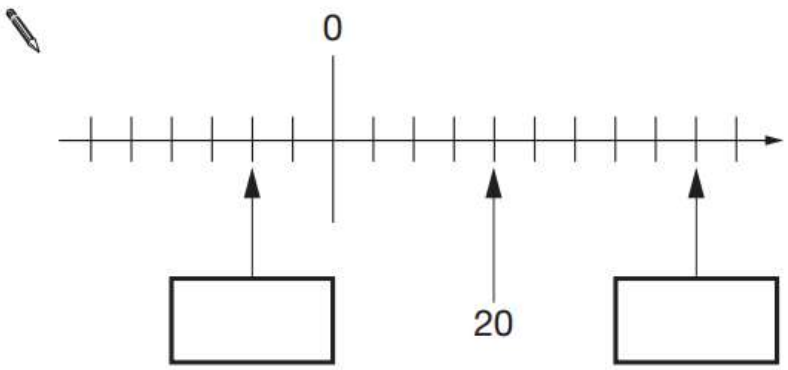
[2 marks]

---

6 Here is part of a number line.

[2009]

Write the missing numbers in the boxes.



[2 marks]

54

12 This weather chart shows the highest and lowest temperatures in a town on five days in March.

[2014]

	Temperature °C	
	highest	lowest
Monday	+7	0
Tuesday	+7	−2
Wednesday	+8	−2
Thursday	+9	+1
Friday	+4	−5

Which day has the greatest difference between the highest and the lowest temperatures?

_____

What is the difference between the lowest temperatures on Thursday and Friday?

degrees

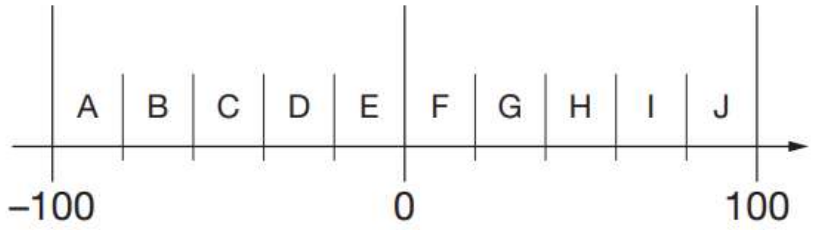
[2 marks]

55

13 Here is part of a number line.

[2011]

It is divided into equal sections.



Write the letter of the section where each of these numbers belongs.

The number 99 has been done for you.

number	section
99	J
29	
−83	
−15	
44	

[2 marks]

56

Section Five:
Multiples, Factors and Primes

1 Circle all the **multiples of 8** in this list of numbers.

[2002]

18 32 56 68 72

[1 mark]

---

2 Here is a number chart.

[2008]

Circle the **smallest** number on the chart that is a multiple of **both** 2 and 7

71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Here is the same number chart.

Circle the **largest** number that is **not** a multiple of 2 or 3 or 5

71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

[2 marks]

3 Here is a diagram for sorting numbers.

[2016S]

Write **one number** in each box.

One is done for you.

	multiple of 5	**not** a multiple of 5
multiple of 3	30	
not a multiple of 3		

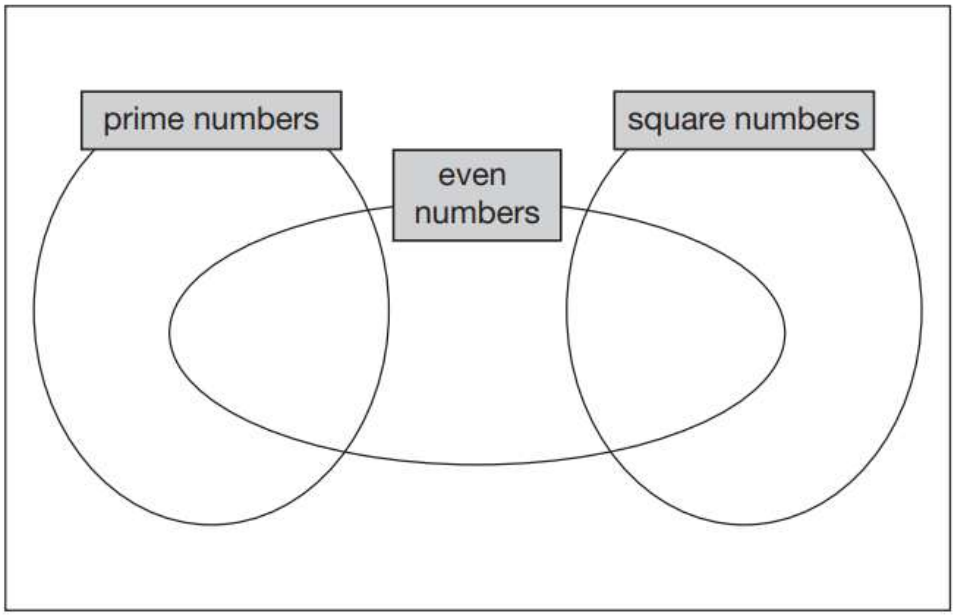
[2 marks]

---

4 Write each number in its correct place on the diagram.

[2016]

16 17 18 19



[2 marks]

60

5 [2017]

Write three factors of 30 that are **not** factors of 15

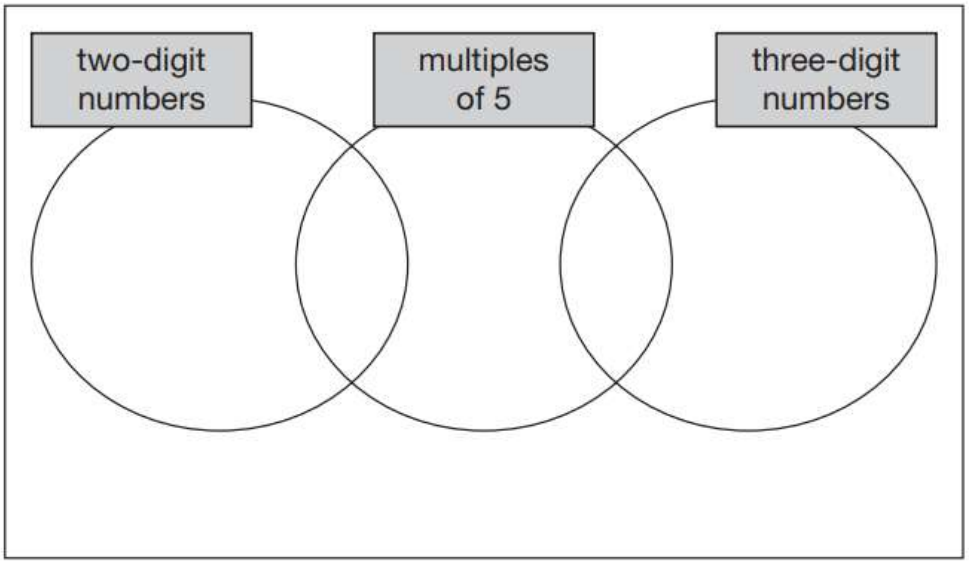
[2 marks]

6 [2014]

Here is a diagram for sorting numbers.

Write **each** number in its correct place on the diagram.

2 20 201 2000



[2 marks]

7 [2013]

36 and 64 are both square numbers.

They have a sum of 100

Find two **square** numbers that have a sum of **130**

and

[1 mark]

61

13 Write **all** the common multiples of 3 and 8 that are **less than 50**

[2016]

_____

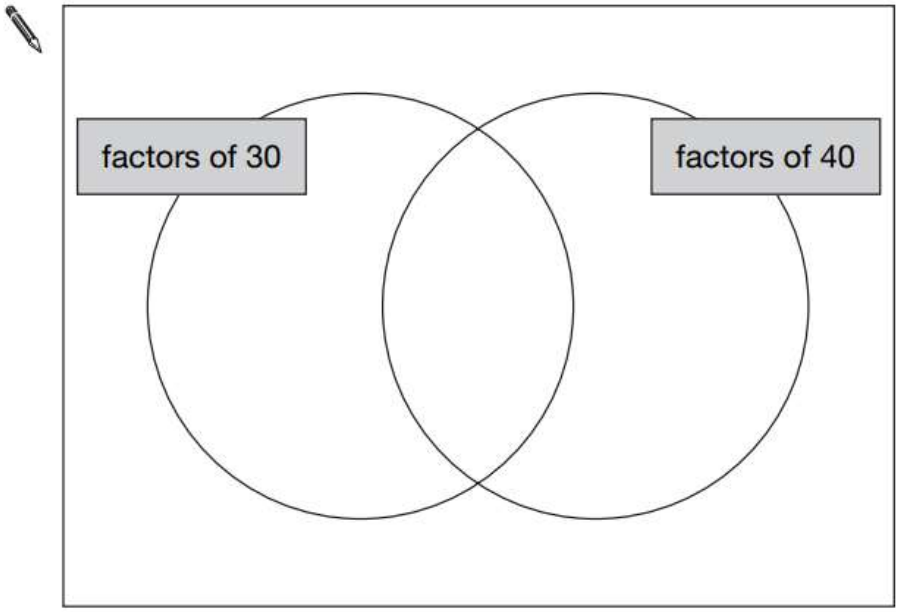
[1 mark]

---

14 Write these numbers in the correct places on the diagram.

[2006]

5 6 7 8



[2 marks]

---

15 Circle the **two** prime numbers.

[2006]

29 39 49 59 69

[1 mark]

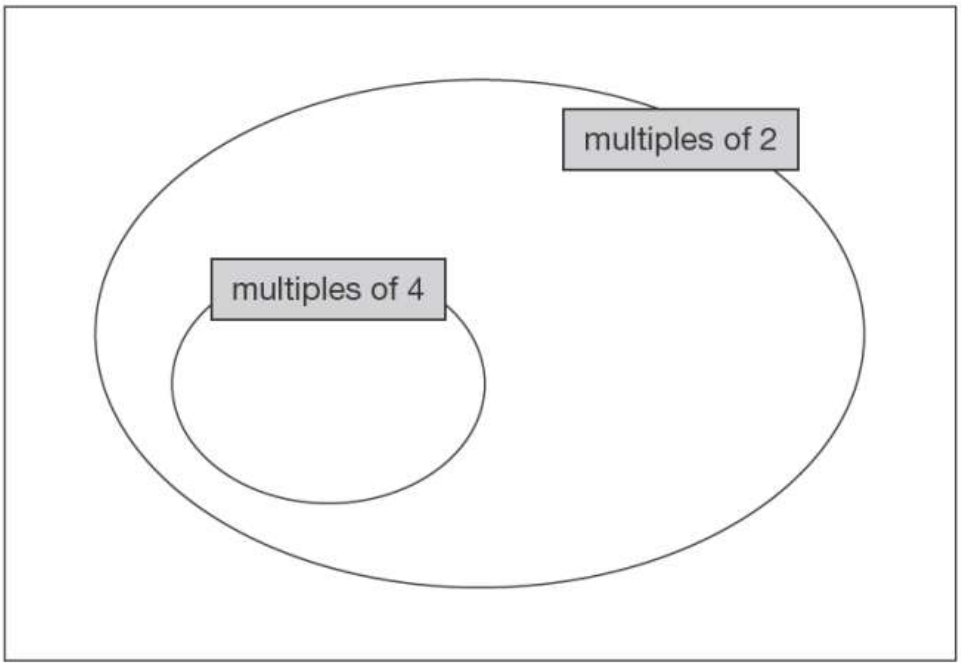
62

20 Here is a diagram for sorting numbers.

[2012]

Write each number in its correct place on the diagram.

10 11 12 13



[2 marks]

---

21 364 is a multiple of 7 but not a multiple of 3

[2013]

384 is a multiple of 3 but not a multiple of 7

Find a number between 364 and 384 that is **both** a multiple of 7 **and** a multiple of 3

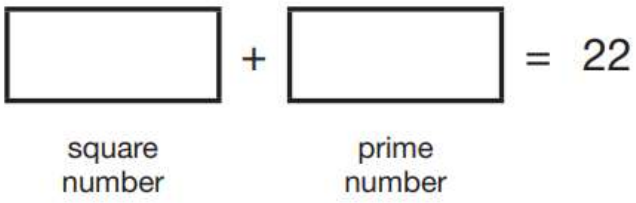
[1 mark]

63

25 A **square** number and a **prime** number have a total of 22

[2017]

What are the two numbers?



64 [1 mark]

Section Six:

Rounding, Estimating and Checking

1 Round **84,516**

[2017]

to the nearest 10 ☐

to the nearest 100 ☐

to the nearest 1,000 ☐

[2 marks]

---

2 Which of these numbers give **80** when **rounded** to the **nearest 10**?

[2003]

Circle all the correct numbers.

84 87 72 76 90

[1 mark]

---

3 Round the following numbers.

[2009]

540 to the nearest 100 ☐

236 to the nearest 10 ☐

$1\frac{3}{4}$ to the nearest whole number ☐

[3 marks]

4 Round **124,531**

[2016S]

to the nearest 10,000 ☐

to the nearest 1,000 ☐

to the nearest 100 ☐

[2 marks]

---

5 Complete this table by rounding the numbers to the **nearest hundred**.

[2016]

	Rounded to the **nearest hundred**
20,906	
2,090.6	
209.06	

[2 marks]

---

6 Round 39.17

[New]

to one decimal place ☐

to the nearest whole number ☐

[2 marks]

68

7 Round the following numbers

[New]

70.76 to one decimal place ☐

19.5 to the nearest whole number ☐

309.49 to the nearest whole number ☐

[2 marks]

---

8 Write in the missing numbers.

[2013]

Number	Rounded to the nearest **whole** number
5.05	
5.55	
4.45	
4.54	

[2 marks]

---

9 Round 39.73

[New]

to one decimal place ☐

to the nearest whole number ☐

[2 marks]

69

10 Complete this table to show the numbers rounded to the **nearest 100**

[2012]

One has been done for you.

	rounded to the nearest hundred
316	300
3162	
31628	
316281	

[2 marks]

---

11 The **difference** between two numbers is 2

[2015] When each number is rounded to the nearest hundred, the difference between them is 100

Write what the two numbers could be.

 ☐ and ☐

[1 mark]

---

12 Complete this table by rounding the values to the nearest whole number.

[New]

	Rounded to the **nearest whole number**
19.4	
590.83	
173.46	
309.5	

[2 marks]

70

71

72

73