10-4-10

‘10 minutes a day for ten days’

PiXL PRIMARY partners in excellence

Mathematics 10-4-10 Expected Standard

Answer Booklet

Easter 2016

Easter Revision

DAY 1

Arithmetic Questions

1 465 x 100 =

46,500

1 mark

2 83 x 34 =

$$\begin{array}{r} 83 \\ \times\ 34 \\ \hline 332 \\ 2490 \\ \hline 2822 \\ \hline 1 \end{array}$$

2,822

2m

3 45.76 + 15.95 =

$$\begin{array}{r} 45.76 \\ +\ 15.95 \\ \hline 61.71 \\ \hline 1\ 1\ \ 1 \end{array}$$

Make sure you line up the digits correctly.

61.71

1 mark

4 5967 - _____ = 2395

$$\begin{array}{r} 5\ {}^{8}\!\not{9}\ {}^{1}6\ 7 \\ -\ 2\ 3\ 9\ 5 \\ \hline 3\ 5\ 7\ 2 \end{array}$$

3,572

1 mark

5 2/5 + 4/5 =

$$\frac{2}{5} + \frac{4}{5} = \frac{6}{5}$$

You can write your answer as an improper fraction or a mixed number

$\frac{6}{5}$ or $1\frac{1}{5}$

1 mark

DAY 1 – Reasoning Questions

1. The numbers in this sequence increase by the same amount each time. ***Write the two missing numbers.***

280 320 360 400 440

+40 +40 +40

2 marks

2. **Circle** the number that is closest to 400.

423 4001 382 444 143

1 mark

3. A box contains 170 pens. 6 children each take 4 pens. How many pens are left in the box?

Show your method

$6 \times 4 = 24$

$170 - 24 = 146$

146

2 marks

4. Write the **missing numbers** in the multiplication grid.

x	9	4	7
5	45	20	35
6	54	24	42
3	27	12	21

2 marks

5. Here is a diagram for sorting numbers. Write **one number** in each box. One is done for you.

	Multiple of 3	***Not** a multiple of 3*
Odd number	15, 21, 27, 33 etc.	1, 5, 7, 11 etc
***Not** an odd number*	6, 12, 18, 24 etc.	2, 4, 8, 10 etc.

2 marks

DAY 2

Arithmetic Questions

1 56 x 8 =

$$\begin{array}{r} 56 \\ \times\ 8 \\ \hline 448 \\ {\scriptstyle 4} \end{array}$$

448

1 mark

2 1/8 x 14 =

$$\frac{1}{8} \times 14 = \frac{14}{8} = 1\frac{6}{8}$$

$$= 1\frac{3}{4}$$

$1\frac{3}{4}$

1 mark

3 3700 + 4800 =

$$\begin{array}{r} 4800 \\ +\ 3700 \\ \hline 8500 \\ {\scriptstyle 1} \end{array}$$

8,500

1 mark

4 567 ÷ 3 =

$$\begin{array}{r} 189 \\ 3\overline{)\,5\,^{2}6\,^{2}7} \end{array}$$

189

1 mark

5 8564 - _____ = 2456

$$\begin{array}{r} 85\,^{5}\cancel{6}\,^{1}4 \\ -\ 2456 \\ \hline 6108 \end{array}$$

6,108

1 mark

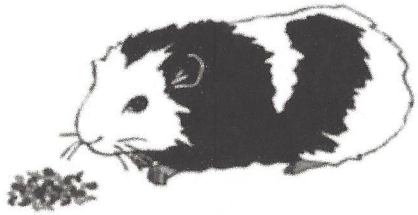
DAY 2 – Reasoning Questions

1. Max jumped 2.25 metres on his second try at the long jump. This was 75 centimetres longer than on his first try. How far in metres did he jump on his first try?

2.25 − 0.75 = 1.5m *(1 mark)*

2.

A packet contains 1.5 kilograms of guinea pig food. Remi feeds her guinea pig 30 grams of food each day.



How many days does the packet of food last?

1.5 kg = 1500g

1500g ÷ 30g = 50

50 days *(1 mark)*

3. A bottle holds 1 litre of lemonade. Rachel has 5 glasses and fills each glass with 150 millilitres of the lemonade. How much lemonade is left in the bottle?

150 x 5 = 750ml

1L = 1000 mL

1000 − 750 = 250ml

250 ml *(1 mark)*

4.

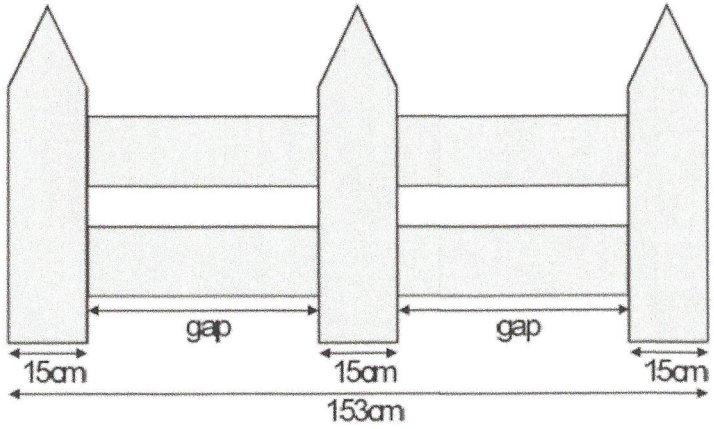
This table shows the weight of some fruits and vegetables. Complete the table.

	grams	kilograms
potatoes	3500	3.5
apples	1200	1.2
grapes	250	0.25

(1 mark)

5.

This fence has three posts, equally spaced.



Each post is 15 centimetres wide.
The length of the fence is 153 centimetres.
Calculate the length of one gap between two posts.

3 x 15 = 45cm

153 − 45 = 108cm

108 ÷ 2 = 54 cm

54 cm *(1 mark)*

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DAY 3

Arithmetic Questions

1 7540 ÷ 26 =

1 x 26 = 26
2 x 26 = 52
3 x 26 = 78
etc.
9 x 26 = 234
10 x 26 = 260

```
      2 9 0
26 ) 7 5 4 0
     5 2
     2 3 4
     2 3 4
         0 0
```

290

2 marks

2 2067 + 589 =

```
  2 0 6 7
+   5 8 9
  2 6 5 6
```

2656

1 mark

3 95674 − 3895 =

```
  9 5 6 7 4
−   3 8 9 5
  9 1 7 7 9
```

91,779

1 mark

4 2/3 of 90 =

$\frac{1}{3}$ of 90 = 30

$\frac{2}{3}$ of 90 = 60

60

1 mark

5 4.56 ÷ 10 =

0.456

1 mark

DAY 3 – Reasoning Questions

1.

Write these numbers in order.
One has been done for you.

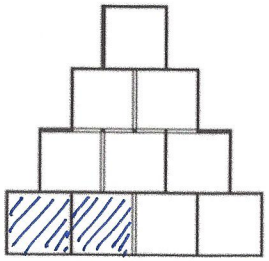
3·03 3·23 3·3 3 3·2

3·3	largest
3·23	
3·2	
3·03	
3	smallest

(1 mark)

2.

Shade $^1/_5$ of this shape.

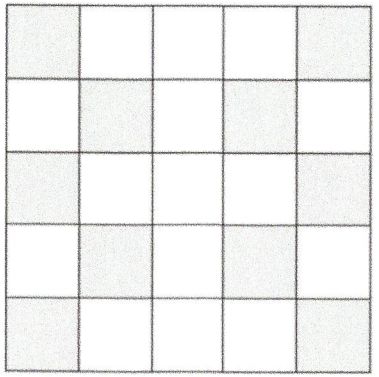


10 squares
$\frac{1}{5}$ of 10 = 2
Shade any 2 squares.

(1 mark)

3.

Here is a pattern on a grid.



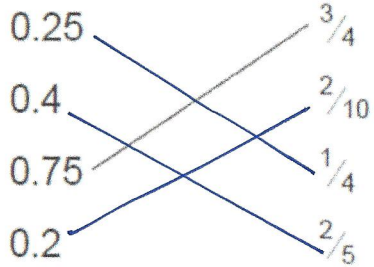
10 → ×4 → 40
25 → ×4 → 100

What percentage of the grid is shaded?

40% *(1 mark)*

4.

Match each decimal number to its equivalent fraction. One has been done for you.



(1 mark)

5. Write in the missing numbers.

30% of 60 is 18 30% of 200 is 60

10% = 6
30% = 18

(2 marks)

DAY 4

Arithmetic Questions

1 3.45 x 1000 = 3450

1000

1 mark

2 3 x 7 = 4 x 6 - ____

3 x 7 = 21

4 x 6 = 24

24 - 21 = 3

3

1 mark

3 45.76 + 5.95 =

$$\begin{array}{r} 45.76 \\ +\ 5.95 \\ \hline 51.71 \\ {\scriptstyle 1\ \ 1\ \ \ 1} \end{array}$$

51.71

1 mark

4 3/4 - 5/12 =

$\frac{3}{4} - \frac{5}{12} =$

$\frac{9}{12} - \frac{5}{12} = \frac{4}{12}$ or $\frac{1}{3}$

$\frac{4}{12}$ or $\frac{1}{3}$

1 mark

5 5867 ÷ 4 =

$$4\overline{)5867} = 1466 \text{ r } 3$$

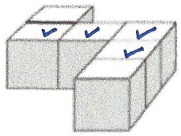
1,466 r 3

1 mark

DAY 4 – Reasoning Questions

1.

Emily has 6 cubes.
She sticks them together to make this model.

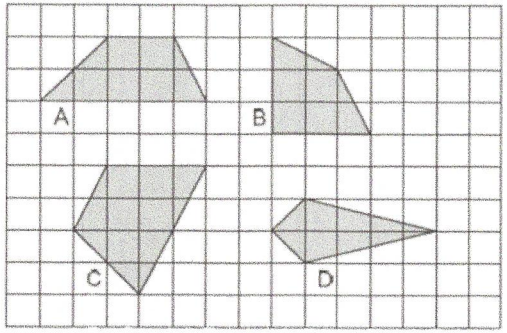


She paints the sides of the model grey all the way round. She leaves the top and the bottom of the model white.
How many of the cubes in the model have exactly two faces painted grey?

4 *(1 mark)*

2.

Here are some shapes on a grid.



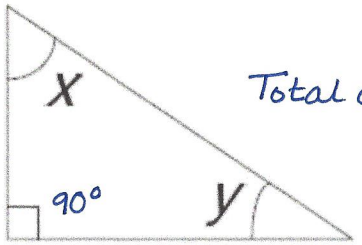
Write the letter of each shape that has one pair of parallel sides.

A and C *(1 mark)*

3.

Look at the triangle. Angle x is fifty-five degrees.
Calculate the size of angle y.

90
+ 55
= 145

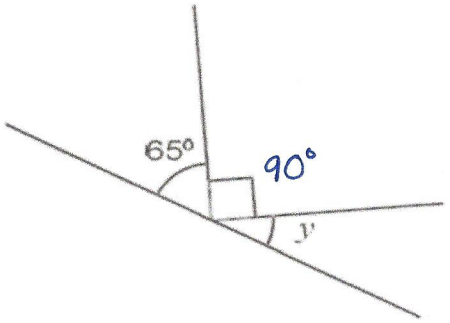


Total of all angles = 180°

180 - 145 = 35°

35° *(1 mark)*

4.



Straight line = 180°
90 + 65 = 155°
180 - 155 = 25°

Not to scale

Calculate the size of angle y in this diagram.
Do not use a protractor (angle measurer).

25° *(1 mark)*

DAY 5

Arithmetic Questions

1 480 ÷ 60 =

8

1 mark

2 -14 + 9 =

-5

1 mark

3 4 2/3 – 1 1/3 =

$4\frac{2}{3} - 1\frac{1}{3} = 3\frac{1}{3}$

$3\frac{1}{3}$

1 mark

4 40% of £13 =

10% of 13 = £1.30

1.30 x 4 = 520

£5.20

1 mark

5 295 x 17 =

$$\begin{array}{r} 295 \\ \times\ 17 \\ \hline 2065 \\ 2950 \\ \hline 5015 \\ {\scriptstyle 1\ 1} \end{array}$$

5,015

DAY 5 – Reasoning Questions

1.

In class 6T there are 3 girls to every 2 boys. There are 21 girls in the class. How many boys are there?

G	B
3	2
21	14

(×7 from 3 to 21; ×7 from 2 to 14)

14 *(1 mark)*

2.

A cupcake recipe uses 2 eggs for every 250g of flour. How many eggs are needed for 1kg of flour?

E	F
2	250g
8	1000g

(×4 from 2 to 8; ×4 from 250g to 1000g)

8 *(1 mark)*

3.

Use the rule below to fill in the empty boxes.

Double a number and add 3

17 → 37

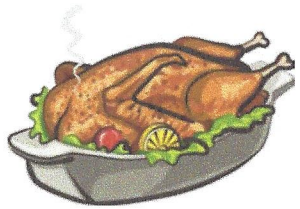
17 × 2 = 34
34 + 3 = 37

23 ← 49

49 − 3 = 46
46 ÷ 2 = 23

(1 mark)

4.



A recipe for roasting a chicken states that you must roast it for 20 minutes per 500g plus 20 minutes extra. Dan is roasting a chicken which weighs 1.5 kg. How long will he need to roast it for?

1·5 kg = 1500g
1500g ÷ 500g = 3
3 × 20 = 60
60 + 20 = 80

80mins or 1 hr 20 mins *(1 mark)*

5.

□ and ○ each stand for a different number.

□ = 34

□ + □ = ○ + ○ + □

What is the value of ○?

34 + 34 = ○ + ○ + 34
68

68 − 34 = 34 so ○ = 17

17 *(1 mark)*

DAY 6

Arithmetic Questions

1 450000 ÷ _____ = 4500

100

1 mark

2 0.7 x 8 =

5.6

1 mark

3 8574 + 485 =

$$\begin{array}{r} 8\,5\,7\,4 \\ +\quad 4\,8\,5 \\ \hline 9\,0\,5\,9 \\ {\scriptstyle 1\ 1} \end{array}$$

9,059

1 mark

4 576.3 – 34.9 =

$$\begin{array}{r} {\scriptstyle 5}\,\not{6}^{\,1}.3 \\ -\quad 3\,4.9 \\ \hline 5\,4\,1.4 \end{array}$$

541.4

1 mark

5 1 1/4 + 5/8 =

$$1\tfrac{1}{4} + \tfrac{5}{8}$$

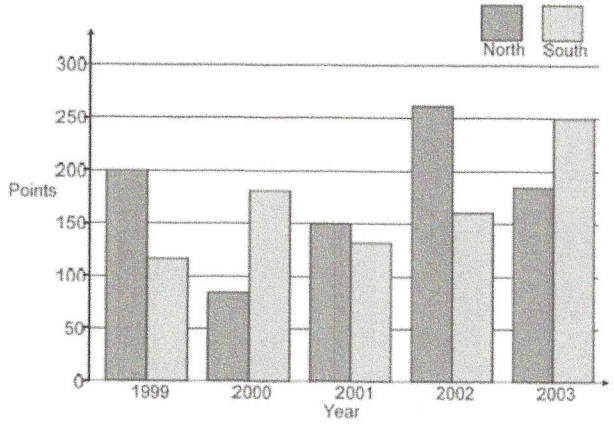
$$= 1\tfrac{2}{8} + \tfrac{5}{8}$$

$1\tfrac{7}{8}$

1 mark

DAY 6 – Reasoning Questions

A school has a quiz each year. There are two teams. Here are their results.



In which year did North beat South by 100 points? 2000 *(1 mark)*

In which year did South beat North by the greatest amount? 2000 *(1 mark)*

2. Brooklyn runs the 100m 5 times. These are his times in seconds.

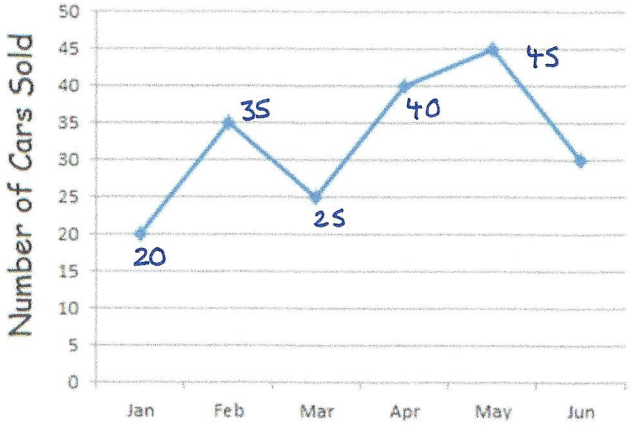
13.4	14	13.6	14.7	14.3

What is his mean (average) time? 14 *(1 mark)*

3. The total of 4 numbers is 80. What is their mean?

20 *(1 mark)*

4.

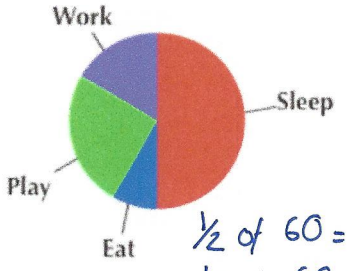


How many more cars were sold in April than in March?

15 *(1 mark)*

How many cars were sold in total between the beginning of January and the end of May? 165 *(1 mark)*

5. This pie chart looks at activities completed by 60 people on Saturday morning.



What fraction of the people played?

$\frac{1}{4}$ *(1 mark)*

What is the difference between the amount that sleep and play?

½ of 60 = 30
¼ of 60 = 15
30 − 15 = 15

15 *(1 mark)*

DAY 7

Arithmetic Questions

1 12000 + 5000 + _____ = 18300

12,000 + 5,000 = 17,000

18,300 − 17,000 = 1,300

1,300

1 mark

2 45.6 x 10 =

456

1 mark

3 674 ÷ 15 =

						4	4	r 14
15	1				15	6	7	4
30	2				−	6	0	↓
45	3						7	4
60	4					−	6	0
75	5						1	4

44 r 14

2

4 $8^2 - 6^2$ =

$8^2 = 64$

$6^2 = 36$

64 − 36 = 28

28

1 mark

5 4 x 7 x 3

4 x 7 = 28

28 x 3 = 84

30 x 3 = 90

2 x 3 = 6

84

84

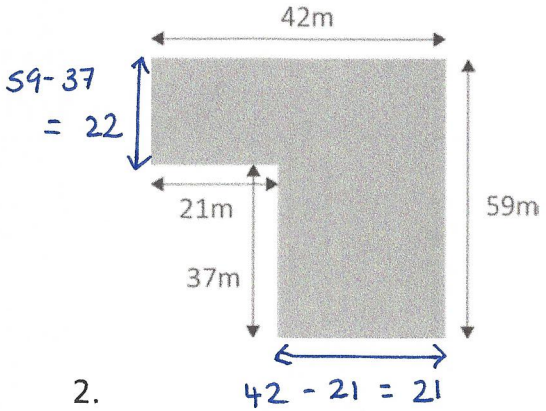
1 mark

DAY 7 – Reasoning Questions

1.

Find the perimeter of the shape below.

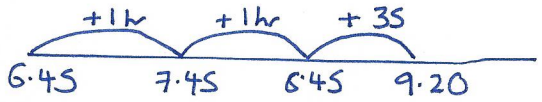
202cm *(1 mark)*



2.

A film starts at 6:45pm.
It lasts 2 hours and 35 minutes.

What time will the film finish?



9:20pm *(1 mark)*

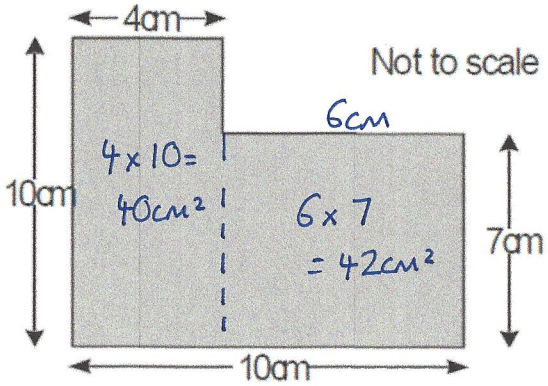
3.

Buses come once an hour at a twenty past the hour. Sophie arrives at the bus stop at 9:40am. How long should she have to wait for the next bus?

40 mins *(1 mark)*

4.

What is the area of this shape?



40 + 42 = 82

82 cm² *(1 mark)*

5.

A square has four sides. One of its sides measures 67mm. Work out its perimeter in cm.

67 mm = 6·7 cm

6·7 x 4 = 26·8

Perimeter = 26·8 cm

26·8cm *(1 mark)*

DAY 8

Arithmetic Questions

1 60 x 70 =

4200

1 mark

2 3.78 – 0.5 =

$$\begin{array}{r} 3.78 \\ -\ 0.50 \\ \hline 3.28 \end{array}$$

3.28

1 mark

3 20% of 3400 =

10% of 3400 = 340

20% of 3400 = 680

680

1 mark

4 6492 ÷ 8 =

$$8 \overline{)\,6\,4^{0}\,9^{1}2} \quad 0\,8\,1\,1\ r4$$

811r 4

1 mark

5 12 ÷ (4 + 2) =

2

1 mark

DAY 8 – Reasoning Questions

1.

Toby has $\frac{3}{4}$ of £160 and Paul has $\frac{3}{8}$ of £240. How much more money does Toby have?

$\frac{1}{4}$ of £160 = £40

$\frac{3}{4}$ of £160 = £120

$\frac{1}{8}$ of 240 = £30

$\frac{3}{8}$ = £90

£120 − £90 = £30

£30 *(1 mark)*

2.

Circle all the improper fractions that are equivalent to 4.

$\frac{12}{6}$ $\frac{48}{12}$ $\frac{30}{8}$ $\frac{16}{4}$ $\frac{4}{9}$

(1 mark)

3. Draw lines to join the decimal with the equivalent fraction.

0.75	3/4
0.34	0.34
0.7	7/100
0.07	40/100
0.04	7/10

(1 mark)

4.

Use the symbol < > = to make this statement true.

25% of £300 [>] 15% of £400

£300 ÷ 4 = 75

10% of £400 = 40

5% of £400 = 20

15% of £400 = 60

(1 mark)

5.

Bobby and Sue are sharing a cake. Bobby wants to eat 25% of the cake. Sue wants to eat 2/5 of the cake. Sue thinks she will be eating the same amount as Bobby. Explain why Sue is wrong.

$\frac{2}{5} = \frac{4}{10} = 40\%$

40% > 25%.

(1 mark)

DAY 9

Arithmetic Questions

1 -13 + 21 =

8

1 mark

2 ¼ x 16 =

$\frac{1}{4} \times 16 = 16 \div 4 = 4$

4

1 mark

3 578300 – 600 =

$$\begin{array}{r} 5\,7\,{}^{7}\!\not{8}\,{}^{1}3\,0\,0 \\ -\quad\quad\quad 6\,0\,0 \\ \hline 5\,7\,7\,7\,0\,0 \end{array}$$

577,700

1 mark

4 7452 ÷ 6 =

$$\begin{array}{r|l} & 1\,2\,4\,2 \\ \hline 6 & 7\,{}^{1}4\,{}^{2}5\,{}^{1}2 \end{array}$$

1,242

1 mark

5 7/9 + 5/9 =

$\frac{12}{9}$ or $1\frac{1}{3}$

1 mark

DAY 9 – Reasoning Questions

1.

Circle all the multiples of 4 listed below:

240 113 98 808 1800

(1 mark)

2.

List all the factors of 24.

1, 2, 3, 4, 6, 8, 12, 24

(1 mark)

3.

Tina is thinking of 2 square numbers. The difference between them is 11. When she adds them together the total is 61. What two square numbers is Tina thinking of?

1 4 9 16 25 36 49 64

25, 36 *(1 mark)*

4.

Complete the prime numbers:

2	3	5	7	11	13	17	19

(1 mark)

5.

What is the lowest common multiple of 9 and 12?

36 *(1 mark)*

DAY 10

Arithmetic Questions

1 1/12 x 3 =

$\frac{1}{12} \times 3 = \frac{3}{12} = \frac{1}{4}$

$\frac{1}{4}$

1 mark

2 0.7 x 12 =

8.4

1 mark

3 35% of 260

10% is 26

20% is 52

30% is 78

5% is 13

+

35% is 78 + 13 = 91

91

1 mark

4 75342 + 3864 =

$$\begin{array}{r} 75342 \\ +\ 3864 \\ \hline 79206 \\ {\scriptstyle 1\ 1\ \ \ \ } \end{array}$$

79,206

1 mark

5 2 x 3 x 2 = 1200 ÷ _____

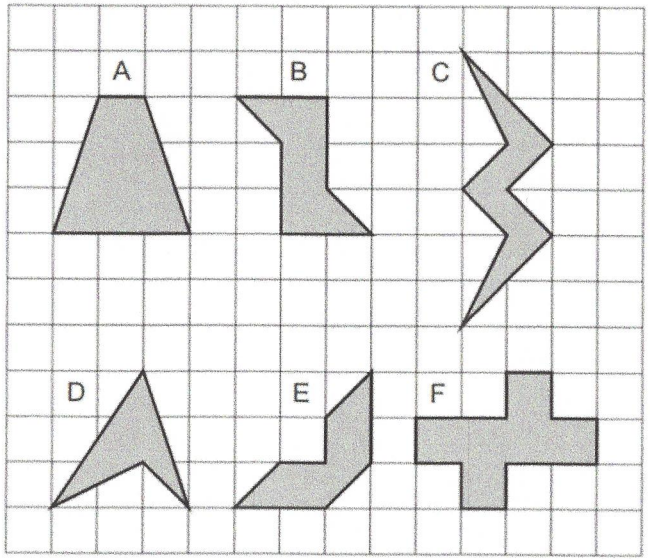
100

1 mark

DAY 10 – Reasoning Questions

1.

Here are some shaded shapes on a grid.



Which three shapes have reflective symmetry?

A, C, E *(1 mark)*

2. Write these numbers in descending order.

176,490 167,940 174,609 169,470 10,740

176,490	174,609	169,470	167,940	10,740

(1 mark)

3. Lloyd works for 165 days of the year. How long is this in weeks and days?

23 weeks and 4 days

23 r 4 *(1 mark)*

4. The table shows the temperature in different cities.

City	Temperature ^{0}C
London	7
Birmingham	-3
Edinburgh	-9
Leeds	0
Cardiff	-4
Brighton	8
Southampton	11

What is the difference in temperature between London and Cardiff?

11°C *(1 mark)*

The temperature in Birmingham increases by 14^{0}C. What is the temperature in Birmingham now?

11°C *(1 mark)*

5. Polly has 5 bags of sweets. In each bag there are 21 sweets. She wants to share them equally between 6 people. How many sweets does each person get?

17 *(1 mark)*