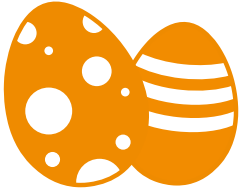




Mathematics 10-4-10 Expected Standard

Answer Booklet

Easter 2016



**Easter
Revision**

Arithmetic Questions

1 $465 \times 100 =$

46,500

2 $83 \times 34 =$

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

2,822

3 $45.76 + 15.95 =$

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

61.71

Make sure you line up the digits correctly.

4 $5967 - \underline{\hspace{2cm}} = 2395$

$$\begin{array}{r}
 5967 \\
 - 2395 \\
 \hline
 3572
 \end{array}$$

3,572

5 $2/5 + 4/5 =$

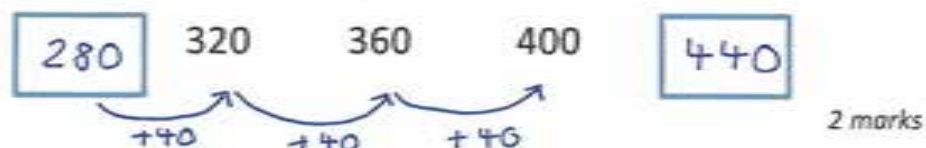
$$\frac{2}{5} + \frac{4}{5} = \frac{6}{5}$$

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

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

DAY 1 – Reasoning Questions

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



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

$$6 \times 4 = 24$$

$$\begin{array}{r} 170 \\ - 24 \\ \hline 146 \end{array}$$

146

2 marks

4. Write the missing numbers in the multiplication grid.

	9	4	7
x			
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 <i>etc.</i>	1, 5, 7, 11 <i>etc.</i>
Not an odd number	6, 12, 18, 24 <i>etc.</i>	2, 4, 8, 10 <i>etc.</i>

2 marks

Arithmetic Questions

1 $56 \times 8 =$

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

448

2 $1/8 \times 14 =$

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

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

$1 \frac{3}{4}$

3 $3700 + 4800 =$

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

8,500

4 $567 \div 3 =$

$$3 \overline{) 567} \begin{array}{l} 189 \\ \underline{3} \\ 26 \\ \underline{24} \\ 27 \\ \underline{27} \\ 0 \end{array}$$

189

5 $8564 - \underline{\hspace{2cm}} = 2456$

$$\begin{array}{r} 8564 \\ - 2456 \\ \hline 6108 \end{array}$$

6,108

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?

$$2.25 - 0.75 = \underline{1.5m} \quad (1 \text{ mark})$$

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?

$$1.5 \text{ kg} = 1500\text{g} \quad \underline{50 \text{ days}} \quad (1 \text{ mark})$$

$$1500\text{g} \div 30\text{g} = 50$$

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?

$$150 \times 5 = 750\text{ml} \quad \underline{250 \text{ ml}} \quad (1 \text{ mark})$$

$$1\text{L} = 1000\text{ml}$$

$$1000 - 750 = 250\text{ml}$$

4.

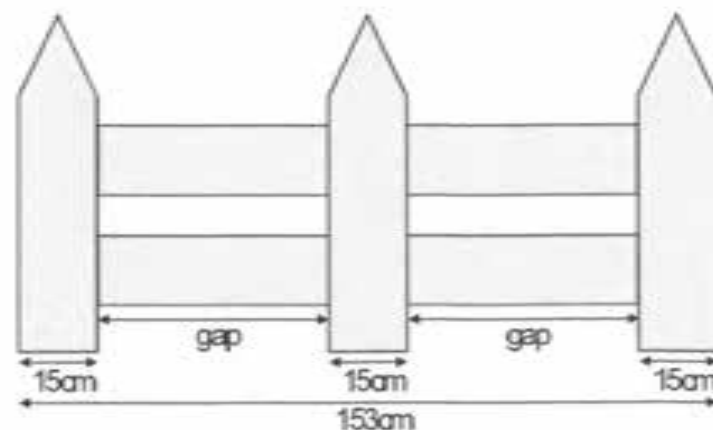
This table shows the weight of some fruits and vegetables. Complete the table.

	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.

$$3 \times 15 = 45\text{cm}$$

$$153 - 45 = 108\text{cm}$$

$$108 \div 2 = 54\text{cm}$$

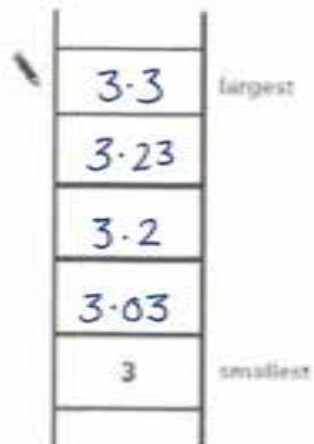
_____ (1 mark)

DAY 3 – Reasoning Questions

1.

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

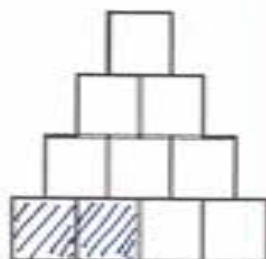
~~3.03~~ ~~3.23~~
~~3~~ ~~3.2~~



(1 mark)

2.

Shade $\frac{1}{5}$ of this shape.

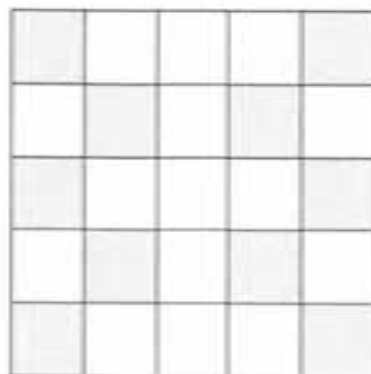


10 squares
 $\frac{1}{5}$ of 10 = 2
Shade any 2 squares.

(1 mark)

3.

Here is a pattern on a grid.



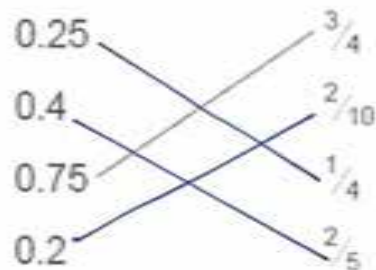
$$\begin{array}{r} 10 \xrightarrow{\times 4} 40 \\ \underline{25} \quad = \quad \underline{40} \\ \xrightarrow{\times 4} 100 \end{array}$$

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)

Arithmetic Questions

1 $3.45 \times 1000 = 3450$

1000

2 $3 \times 7 = 4 \times 6 - \underline{\quad}$

$$3 \times 7 = 21$$

$$4 \times 6 = 24$$

$$24 - 21 = 3$$

3

3 $45.76 + 5.95 =$

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

51.71

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

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

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

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

5 $5867 \div 4 =$

$$\begin{array}{r} 1466 \text{ r } 3 \\ 4 \overline{) 5867} \\ \underline{4} \\ 18 \\ \underline{16} \\ 26 \\ \underline{28} \\ 27 \end{array}$$

1,466 r 3

DAY 4 – Reasoning Questions

1.

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



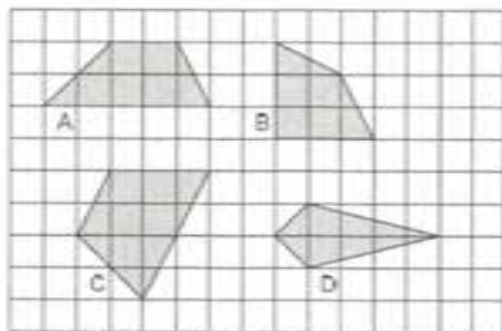
She paints the sides of the model grey all the way round. She leaves the top and the bottom of the model white.

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.

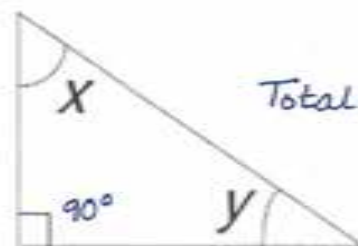


Write the letter of each shape that has one pair of parallel sides. A and C (1 mark)

3.

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

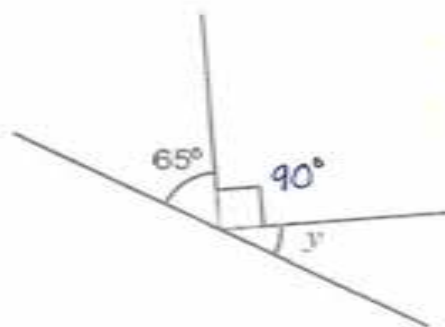
$$\begin{array}{r} 90 \\ + 55 \\ \hline = 145 \end{array}$$



Total of all angles = 180°

$$180 - 145 = 35^\circ \quad \underline{35^\circ} \text{ (1 mark)}$$

4.



Straight line = 180°

$$90 + 65 = 155^\circ$$

$$180 - 155 = 25^\circ$$

Not to scale

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

25° (1 mark)

Arithmetic Questions

1 $480 \div 60 =$

8

2 $-14 + 9 =$

-5

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

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

$3 \frac{1}{3}$

4 40% of £13 =

$$10\% \text{ of } 13 = \text{£} 1.30$$

$$1.30 \times 4 = 5.20$$

£5.20

5 $295 \times 17 =$

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

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	
x 7		x 7
21	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	
x 4		x 4
8	1000g	

8 (1 mark)

3.

Use the rule below to fill in the empty boxes.

Double a number and add 3

17 → 37 $17 \times 2 = 34$
 $34 + 3 = 37$

23 → 49 $49 - 3 = 46$
 $46 \div 2 = 23$

(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?

$$1.5 \text{ kg} = 1500 \text{ g}$$

$$1500 \text{ g} \div 500 \text{ g} = 3$$

$$3 \times 20 = 60$$

$$60 + 20 = 80$$

80 mins or 1 hr 20 mins (1 mark)

5.

and each stand for a different number.

$$\square = 34$$

$$\square + \square = \circ + \circ + \square$$

What is the value of \circ ?

$$\underbrace{34 + 34}_{68} = \circ + \circ + 34$$

$$68 - 34 = 34 \text{ so } \circ = 17$$

17 (1 mark)

Arithmetic Questions

1 $450000 \div \underline{\quad} = 4500$

100

2 $0.7 \times 8 =$

5.6

3 $8574 + 485 =$

$$\begin{array}{r} 8574 \\ + 485 \\ \hline 9059 \\ \text{1 1} \end{array}$$

9,059

4 $576.3 - 34.9 =$

$$\begin{array}{r} 576.3 \\ - 34.9 \\ \hline 541.4 \end{array}$$

541.4

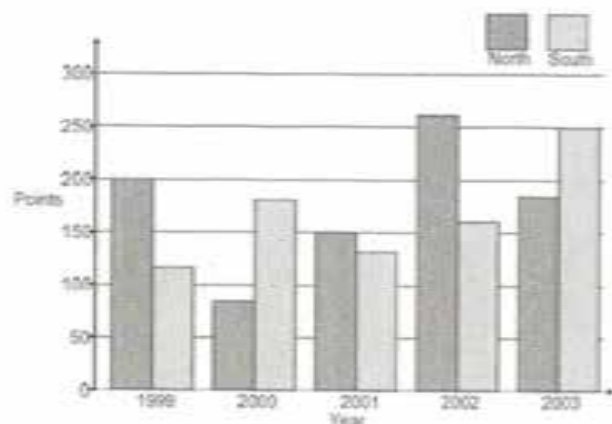
5 $1\frac{1}{4} + \frac{5}{8} =$

$$\begin{aligned} & 1\frac{1}{4} + \frac{5}{8} \\ = & 1\frac{2}{8} + \frac{5}{8} \end{aligned}$$

$1\frac{7}{8}$

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)



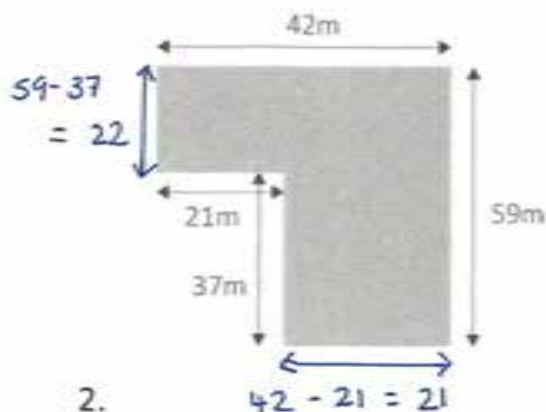
What is the difference between the amount that sleep and play?

$\frac{1}{2}$ of 60 = 30
 $\frac{1}{4}$ of 60 = 15
 30 - 15 = 15
15 (1 mark)

DAY 7 – Reasoning Questions

1.

Find the perimeter of the shape below.

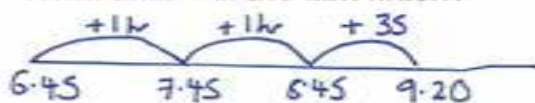


202cm (1 mark)

2.

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

What time will the film finish?



9:20pm (1 mark)

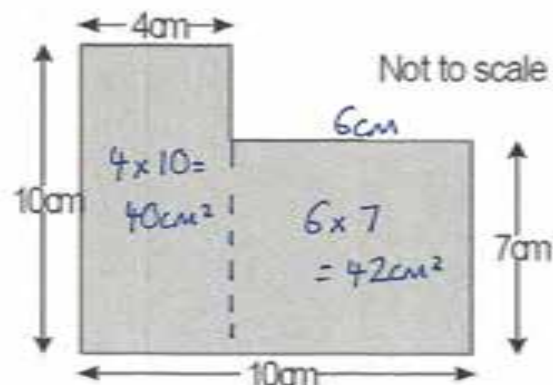
3.

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.

$67\text{mm} = 6.7\text{cm}$

$6.7 \times 4 = 26.8$

Perimeter = 26.8 cm

26.8cm (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?

$$\frac{1}{4} \text{ of } \pounds 160 = \pounds 40$$

$$\frac{1}{8} \text{ of } 240 = \pounds 30$$

$$\frac{3}{8} = \pounds 90 \quad \underline{\pounds 30} \quad (1 \text{ mark})$$

$$\frac{3}{4} \text{ of } \pounds 160 = \pounds 120$$

$$\pounds 120 - \pounds 90 = \pounds 30$$

Circle all the improper fractions that are equivalent to 4.

$$\frac{12}{6} \quad \left(\frac{48}{12}\right) \quad \frac{30}{8} \quad \left(\frac{16}{4}\right) \quad \frac{4}{9}$$

(1 mark)

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

0.75	—	$\frac{3}{4}$
0.34	—	0.34
0.7	—	$\frac{7}{100}$
0.07	—	$\frac{40}{100}$
0.04	—	$\frac{7}{10}$

(1 mark)

4.

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

25% of £300



15% of £400

$$\pounds 300 \div 4 = \textcircled{75}$$

$$10\% \text{ of } \pounds 400 = 40$$

(1 mark)

$$5\% \text{ of } \pounds 400 = 20$$

$$15\% \text{ of } \pounds 400 = \textcircled{60}$$

5.

Bobby and Sue are sharing a cake. Bobby wants to eat 25% of the cake. Sue wants to eat $\frac{2}{5}$ 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

2 $\frac{1}{4} \times 16 =$

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

4

3 $578300 - 600 =$

$$\begin{array}{r} 578300 \\ - 600 \\ \hline 577700 \end{array}$$

577,700

4 $7452 \div 6 =$

$$\begin{array}{r} 1242 \\ 6 \overline{) 7452} \\ \underline{6} \\ 14 \\ \underline{12} \\ 25 \\ \underline{24} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

1,242

5 $\frac{7}{9} + \frac{5}{9} =$

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



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)

Arithmetic Questions

1 $1/12 \times 3 =$

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

$\frac{1}{4}$

2 $0.7 \times 12 =$

8.4



3 35% of 260

10%	is 26	+	35% is	
20%	is 52			
30%	is 78			
5%	is 13			
			78 + 13	
			= 91	

4 $75342 + 3864 =$

7	5	3	4	2
+	3	8	6	4
<hr/>				
7	9	2	0	6

$79,206$

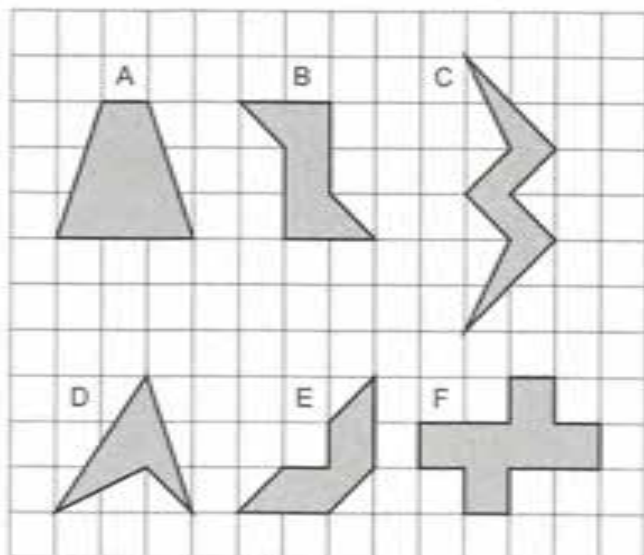
5 $2 \times 3 \times 2 = 1200 \div$

100

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
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(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 $^{\circ}\text{C}$
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 $^{\circ}\text{C}$ (1 mark)

The temperature in Birmingham increases by 14°C . What is the temperature in Birmingham now?

11 $^{\circ}\text{C}$ (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)