**Year 8 – Spring Assessment 2**

**Time: 45 minutes Calculator allowed**

**Name: .................................... Maths Teacher: .........................**

**Date: ......................... Maths Class: .........................**

Answer all the questions

Read the questions carefully

Show your working

Check your answers

Mark (38)



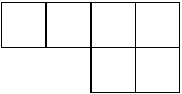
 **Q1.**          **Fractions**

**Things I need to practise:**

**Things I did well:**

          The shapes in this question are drawn on square grids.

(a)     Shade  of the shape below.

1 mark

(b)     What **fraction** of the shape below is shaded?



  .............

1 mark

**Q2.**          **Dollars**

          In America, there are coins each worth 25 cents.

          These coins are called **quarters** because four of them make one dollar.



(a)     Altogether, how many quarters make **3 dollars**?

  ....................

1 mark

(b)     Laura has **20 quarters**. How many dollars is that?

  ....................

1 mark

(c)     Dev wants to change **10 dollars** into quarters. How many quarters should he get?

  ....................

1 mark

**Q3.**          **School trip**

          On a school trip **each teacher** can take **no more than 20 pupils.**

(a)     **Three** teachers go on a school trip.

What is the **greatest number** of pupils they can take with them?

   .................... pupils

1 mark

(b)     The table shows how many pupils go on three school trips.

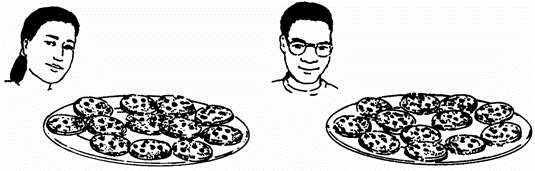
          Complete the table to show the **least number** of teachers that must go with each school trip.

|  |  |  |
| --- | --- | --- |
|  | Number of people | Number of teachers |
|  | 100 |  |
|  | 104 |  |
|  | 199 |  |

2 marks

**Q4.**          **Biscuits**

          Sue and Ben each have 12 biscuits.



(a)     Sue eats a **quarter** of her biscuits.

**How many** biscuits does Sue eat?



1 mark

(b)     Ben eats **6** of his 12 biscuits.

          What **fraction** of his biscuits does Ben eat?



1 mark

(c)     **How many** biscuits are left altogether?



1 mark

**Q5.**          **American dollars**

|  |
| --- |
| £1 = 1.56 dollars |

          How much is **£1.50** in dollars?

|  |  |
| --- | --- |
|  | dollars |

1 mark

**Q6.**          **Plastic bottles**

(a)     Look at this information about recycling:

|  |
| --- |
| **25** large plastic bottles can be recycled to make **1** fleece jacket. |

Write the missing number in this sentence.

   **200** large plastic bottles can be recycled to make …................... fleece jackets.

1 mark

(b)     In a survey, **9 out of 10** people said they would like to recycle more.

What percentage of people said they would like to recycle more?

  …................... %

1 mark

**Q7.**          **Shopping**

          Some people in a supermarket are shopping for food.

(a)     **100g** of cheese costs **46p**.

          Peter buys 30**0g** of the cheese.

          How much does he pay?

|  |  |
| --- | --- |
|  | £ |

1 mark

(b)     Tins of beans cost **36p each**.

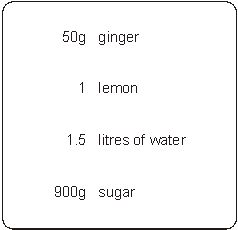
          What is the largest number of these tins John can buy with **£2**?

 …..................

1 mark

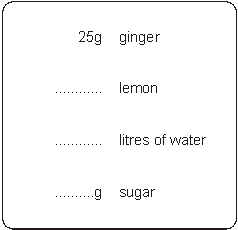
**Q8.**          **Caribbean cordial**

          Here are the ingredients for a cordial used to make a drink.



(a)     Jenny is going to make this cordial with **25g** of ginger.

          How much lemon, water and sugar should she use?



3 marks

(b)     The finished drink should be **cordial** and  **water**.

          Jenny puts **100 ml** of cordial in a glass.

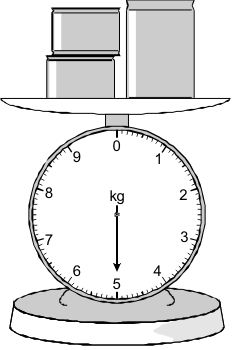
          How much water should she put with it?

 …......................ml

1 mark

**Q9.**          **Weighing**

          There are two small tins and one big tin on these scales.



          The two small tins each have the same mass.  
The mass of the big tin is **2.6 kg**.

          What is the mass of one small tin?  
Show your working.



|  |
| --- |
| kg |

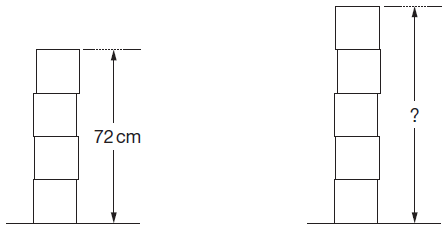
**2 marks**

**Q10.**          **Boxes**

          Lisa has some boxes that are all cubes of the same size.

          She uses four of the boxes to make a pile with a height of **72 cm**.

          She puts one more box on top of the pile.



          Work out the height of the pile of **five** boxes.



....................... cm

2 marks

**Q11.**          **Litres to gallons**

          A petrol station shows this information:

|  |
| --- |
| 10 litres = 2.2 gallons |

          How many gallons is **50 litres**?



..................... gallons

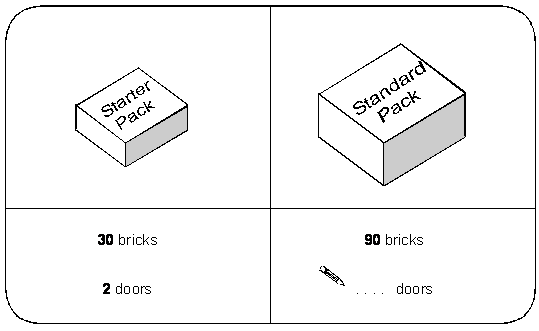
2 marks

**Q12.**          **Building kits**

          Toy building kits come in three sizes.

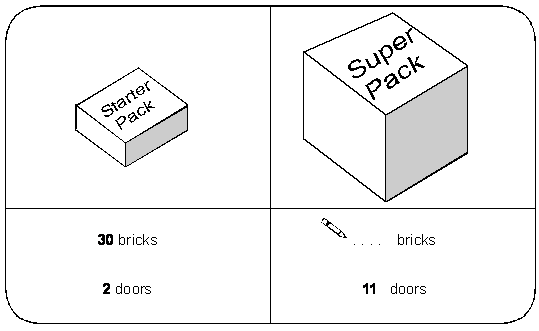
          The **ratio** of **bricks** to **doors** is the **same** in each pack.

(a)     Work out how many doors there are in a Standard pack.



1 mark

(b)     Work out how many **bricks** there are in a Super pack.



1 mark

**Q13.**          **Doughnuts**

          Here are the prices of doughnuts at two different shops.

|  |  |  |
| --- | --- | --- |
| Shop A |  | Shop B |
| 3 doughnuts for £2 |  | 5 doughnuts for £3.50 |

          I want to buy **15** doughnuts.

          In which shop are the doughnuts **cheaper**?

          You **must** show your working.



          Tick () your answer.

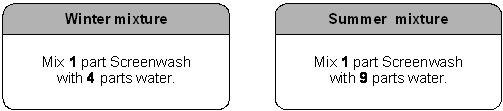
      Shop A               Shop B

2 marks

**Q14.**          **Screenwash**

          Screenwash is used to clean car windows.

To use Screenwash you mix it with water.



(a)     In **winter,** how much water should I mix with **150ml of Screenwash**?

  .......................... ml

1 mark

(b)     In **summer,** how much Screenwash should I mix with **450ml of water**?

  .......................... ml

1 mark

(c)     Is this statement correct?

|  |
| --- |
| **25%** of **winter** mixture is **Screenwash**. |

Tick () Yes or No.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | True |  |  | False |  |

Explain your answer.



1 mark

**Q15.**          **Paint**

          You can make different colours of paint by mixing red, blue and yellow in different **proportions.**

          For example, you can make green by mixing **1 part blue** to **1 part yellow.**

****

Green Paint = 1 part Blue + 1 part Yellow

To make purple, you mix 3 parts red to 7 parts blue.



Purple Paint = 3 parts Blue + 2 parts Red





 How much of each colour do you need to make 1**0** **litres** of purple paint?

  Give your answer in litres.



..................... litres of blue   and   ..................... litres of red

2 marks

**Q16.**          One morning last summer Ravi carried out a survey of the birds in the school garden.

          He saw 5 pigeons, 20 crows, 25 seagulls and 45 sparrows.

          Complete the line below to show the ratios.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pigeons | : | Crows | : | Seagulls | : | Sparrows |
|  | 1 | : | **...........** | : | **...........** | : | **...........** |

                                                                                                                                                     2 marks

**Q17.**          **Yoghurt**

          A dessert has both fruit and yoghurt inside.



**Altogether**, the mass of the fruit and yoghurt is **175g**.

          The **ratio** of the mass of **fruit** to the mass of **yoghurt** is **2 : 5**

          What is the mass of the yoghurt?



...................... g

2 marks