

# Mathematics

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Entry 2



Diagnostic Assessment

This assessment will help you and your tutor find out what you can do and what you need to work on.

- 1) a) How many books are in the picture?



\_\_\_\_\_

- b) How many glasses of orange are in the picture?



\_\_\_\_\_

**Total 2**

2) a) Put the numbers in order from the lowest to the highest.

37                  16                  72                  61

lowest


highest

b) What is the missing number?

18    20    \_\_\_\_\_    24    26    28

c) What is the next number?

5    7    9    11    13    \_\_\_\_\_

**Total 3**

3) Work out the answers.

a)  $12p + 27p = \underline{\hspace{2cm}}p$

b)  $52 \text{ cm} + 19 \text{ cm} = \underline{\hspace{2cm}}\text{cm}$

c)  $55 - 25 = \underline{\hspace{2cm}}$

d)  $63p - 49p = \underline{\hspace{2cm}}p$

Total 4

4) Fill in the missing numbers or signs to make these sums correct.

a)  $5 + \square = 10$

b)  $\square - 1 = 7$

c)  $2 \square 8 = 10$

d)  $8 - 1 \square 7$

Total 4

5) Work out the answers.

a) 5 times 3 = \_\_\_\_\_

b) There are 4 tomatoes in one pack.  
How many tomatoes in 3 packs? \_\_\_\_\_ tomatoes

c) What is double 4? \_\_\_\_\_

Total 3

6) Round to the nearest 10.

a) 18 eggs \_\_\_\_\_ eggs

b) 34p \_\_\_\_\_ p

c) 55 cm \_\_\_\_\_ cm



Total 3

7) Which symbol would you use instead of the word in bold?

**Circle your answer.**

a) 6 **subtract** 2

+ - X =

b) 6 **times** 3

+ - X =

c) The shop sold 12 snack bars in the morning and another 3 snack bars in the afternoon.

How many snack bars did they sell in total?

**You may use a calculator for this question.**

**Tick the correct calculation below.**

☐

$12 - 3 = 9$

☐

$12 \times 3 = 36$

☐

$12 + 3 = 15$

**Total 3**

☐

8) Estimate the cost and choose **yes** or **no** to the questions below.

- a) I want to buy 3 magazines at £4.00 each. Can I buy them with £10?

**Yes/No**

- b) Holly goes to a concert and buys some gifts.

She has £20 to spend. Can she buy all three gifts?

<b>Gifts</b>	
CD	£9
T-Shirt	£7
Scarf	£5

**Yes/No**

**Total 2**

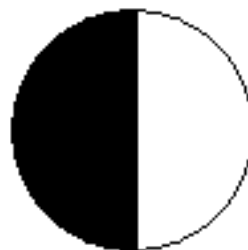
- 9) a) Olivia made 26 cakes for the party. After the party there were only 6 left. How many cakes had been eaten? \_\_\_\_\_

- b) I think of a number and then add 3. The answer is 9.  
**What is my number?** \_\_\_\_\_

**Total 2**

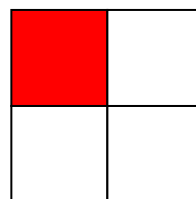
10) a) Circle your answer.

The shaded area is  $\frac{1}{4}$   $\frac{1}{2}$   $\frac{3}{4}$  of the circle.



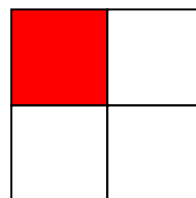
b) Circle your answer.

The shaded area is  $\frac{1}{4}$   $\frac{1}{2}$   $\frac{3}{4}$  of the square.



c) Circle your answer.

The shaded area is:



a quarter

half

three quarters

Total 3



11) a) Jody has 10 daffodils. What is half of 10? \_\_\_\_\_



b) Twenty people are divided into two equal groups. How many in each group?

\_\_\_\_\_

c) You are asked to share 8 oranges equally between 4 people.  
How many oranges will each person get?

\_\_\_\_\_

**Total 3**

12) How much will you need to make up £1?

a) 50p + 20p + p + 10p

b) 20p + 20p + p + 5p + 50p

**Total 2**

- 13) a) How much would it cost for a bag of crisps and a drink?

\_\_\_\_\_p



45p



50p



26p

- b) A newspaper costs 92 pence.  
How much change would you get from a £1 coin?

\_\_\_\_\_p

- c) You spend £9 in a shop.  
How much change would you get from £20?

£\_\_\_\_\_

Total 3

14) a) What is the name of the third month of the year? \_\_\_\_\_

b) Write the following month in full.

Nov \_\_\_\_\_

**23 April 2012**

c) Which of the following is the same as the date shown above?

23/06/12

20 Apr 12

10/23/4

23/4/2010

23-4-76

11/4/23

2 - 3 - 12

23/08/09

23/04/12

Total 3

15) Draw a line to connect each clock to the **correct** time in words.

a)



half past three

three o'clock

one o'clock

b)



quarter past nine

quarter to five

c)



quarter past six

Total 3

16) a) What is the length of this line?



\_\_\_\_\_ cm

b) 1m = \_\_\_\_\_ cm

c) cm is short for:

metre      kilometre      centimetre      litre      centilitre

**Circle your answer.**

☐

**Total 3**

17) a) A bag of sugar weighs:

10 gram      1 kilogram      5 kilogram      10 kilogram

**Circle your answer.**

b) What is the abbreviation (short form) of the word kilogram?

\_\_\_\_\_

**Total 2**

☐

18) a) How many litres does the jug hold?



b) Do you think **this** cup will hold a litre of milk?

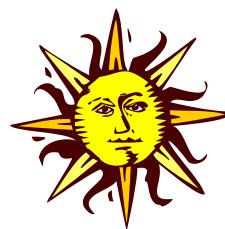


Yes/No

Total 2

19)

Spain Weather Guide	
April	18° °C
May	21°
June	25°
July	28°
August	28°
September	24°
October	21°



- a) What is the temperature for July? \_\_\_\_\_
- b) Is it hotter in August or October? \_\_\_\_\_
- c) This is the weather forecast for tomorrow. Do you think you would need a coat?



**2°C**

Yes/No

Total 3

20) Look at the scale.

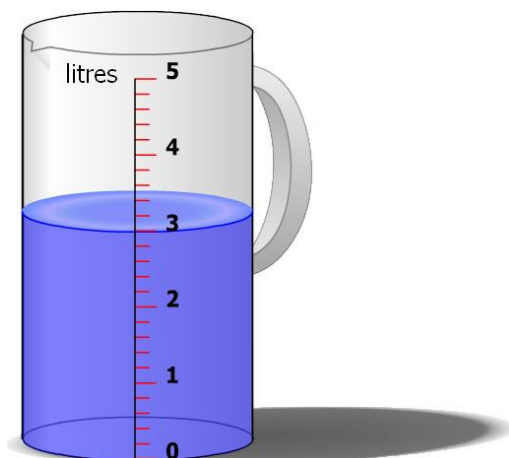
a) Use the scale to complete the sentence.



The car is travelling at nearly \_\_\_\_\_  
m.p.h. (miles per hour)

b) How much water is in the jug?

\_\_\_\_\_ litres



c) What is the weight shown?

\_\_\_\_\_ kilograms



Total 3



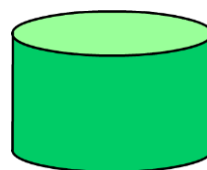
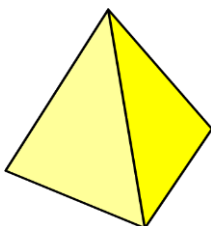
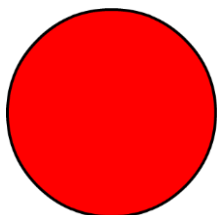
21) What could you use to measure the length of a table?

**Circle your answer.**



**Total 1**

22) Match each shape to its name.



square

cube

rectangle

circle

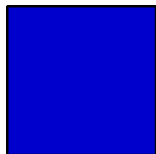
pyramid

triangle

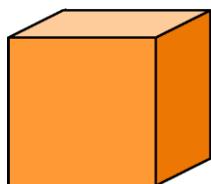
cylinder

**Total 4**

23) a) A square has \_\_\_\_\_ sides and \_\_\_\_\_ corners.



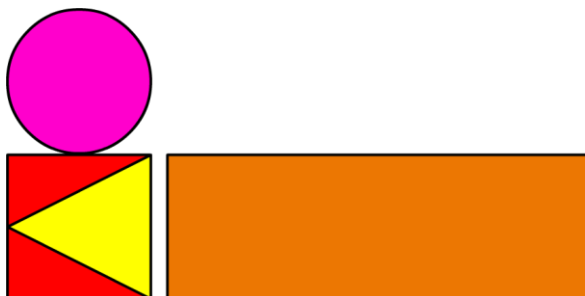
b) A cube has \_\_\_\_\_ corners.



A cube has \_\_\_\_\_ faces.

**Total 4**

24) Choose one of the following options to complete each sentence.



above      below      inside  
on the left of      on the right of

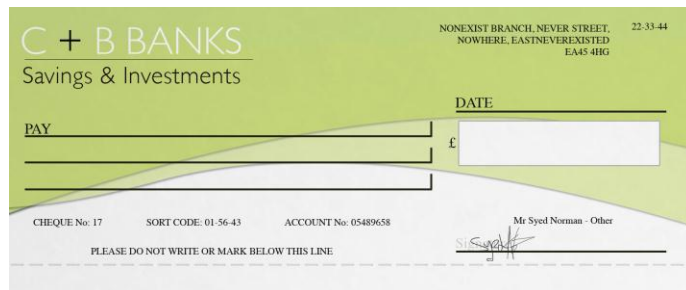
a) The circle is \_\_\_\_\_ the square.

b) The triangle is \_\_\_\_\_ the square.

c) The square is \_\_\_\_\_ the rectangle.

**Total 3**

25) Circle the shapes below that have right angles.



Total 2

26) Use the calendar below to answer the questions.

February				
Mon	1	8	15	22
Tues	2	9	16	23
Wed	3	10	17	24
Thurs	4	11	18	25
Fri	5	12	19	26
Sat	6	13	20	27
Sun	7	14	21	28

- a) What day is 25<sup>th</sup> of February? \_\_\_\_\_
- b) Every 4 years February has 29 days. What day of the week would 29<sup>th</sup> February be? \_\_\_\_\_ day



- c) How many females are there in the exercise class?

Total 3

27)



- a) Circle the correct words to complete the sentence.

This bar chart shows how many (people / exercise / class / number) there are in the (people / graph / number / class).

- b) How many more females than males are there in the class?

\_\_\_\_\_

**Total 3**

- 28) a) Tick every young person who is aged 16, 17 or 18 and who lives in Wrexham.

Name	Town	Age	✓
Eugene Smith	Sutton	18	
Thomas Brown	Wrexham	17	
Paula Davies	Wrexham	20	
Tony Adams	Ripley	16	
Ajit Singh	Wrexham	18	
Su Ling	Dover	16	
Ann Jones	Rotherham	21	
John Moore	Dover	18	

- b) Which of the following could be made from wood and are found in most homes?

potatoes ☐

a cabbage ☐

a door ☐

a computer ☐

a table ☐

a person ☐

**Total 4**

29) You are to carry out a survey on 'Where people **went** on their **last** holiday'.

- a) What would be the most suitable question to ask? **Tick your answer.**

How many holidays have you had?

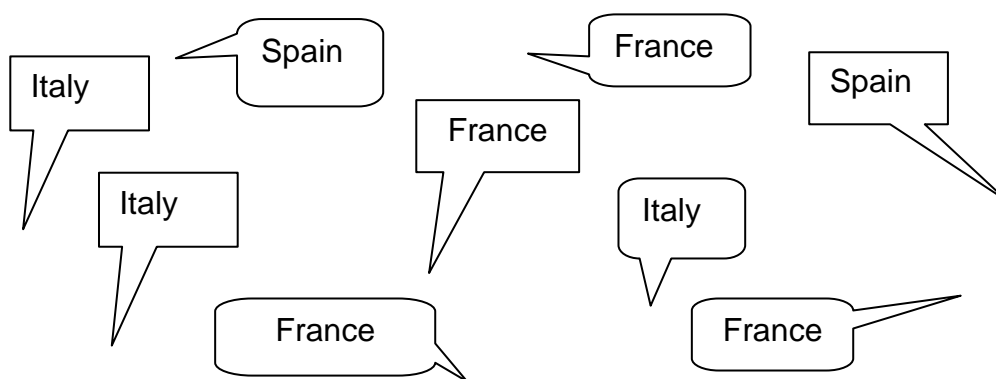
Do you stay in a hotel?

Where did you go on your last holiday?

Have you been to Spain?

These are the results of the survey 'Where people **went** on their **last** holiday'.

- b) Count each holiday destination and enter the results into the table.



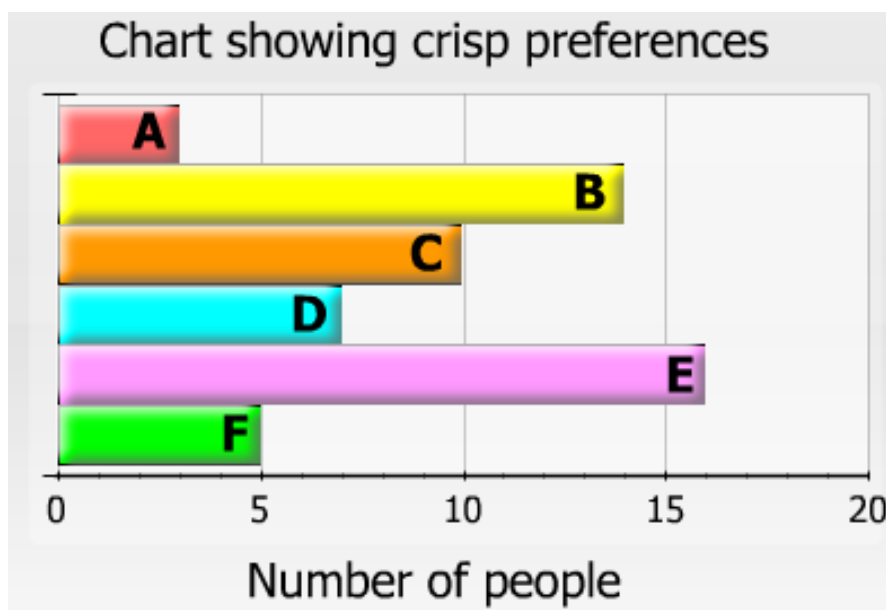
Destination	Tally
Italy	
Spain	
France	

Total 4

- 30) Use the information from the tally chart to work out the crisp flavours shown in the bar chart.

**Tally Marks**

Barbecue		Prawn Cocktail	
Cheese and onion		Plain	
Salt and Vinegar		Chicken	



a) Which bar shows plain crisps? \_\_\_\_\_

b) Which bar shows chicken crisps? \_\_\_\_\_

Total 2