QEH
BRISTOL

11+ Maths Sample Entrance Test

<u>Please note that this sample test is only 20 minutes but the test in January will last **30** minutes</u>

INSTRUCTIONS TO CANDIDATES:

- You have 20 minutes for the paper. **You are not necessarily expected to complete the whole paper.**

- Calculators are NOT allowed.

- Write your answers in the spaces provided in this booklet.

- Answer all 16 questions, showing clear methods. All rough work should be done in this booklet. Take care over accuracy. Clear presentation is important.

- Write your first name and last name in the spaces below.

First name: ……………………………………… **Last name:** …………………………………………

Write your working and answers on the paper in the spaces provided. **Show all working**.

1) Do the following calculations

   a.   8 3 9
        + 4 5 1

   b.   9 0 6
        - 4 3 8

2) Work out the following

   a.   5 3
        x   7

   b.   3 | 1 7 6 7

3) Work out the following

  a. 0.67 + 4.52

                                   ....

  b. 5.7 – 2.3

                                   ....

  c. 1.4 x 1.1

                                   ....

4) Write the following numbers in order of size, from smallest to largest:

$\frac{2}{3}$ 60%   0.06   0.607

……………………………………………………………………

5) I think of a number. I multiply it by 7, subtract 3 and divide it by four. I now have 8. What was the number I first thought of?

…………………

6) What are the next <u>two</u> terms in the following sequence?

49,   64,   81,   100,   …………………,   …………………

7) Find the missing numbers so that the answer is always 48.

152 - …………………

17 + …………………

48

25% of …………………
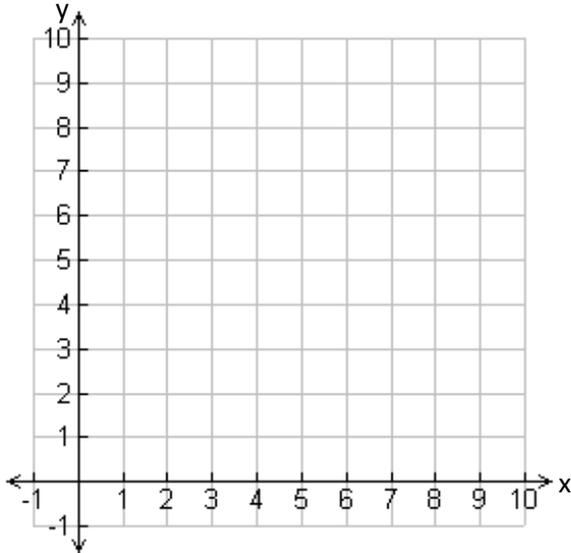
$\frac{1}{3}$ of …………………

144÷ …………………

8) Plot the following co-ordinates on the grid below.

        P (1,8)   Q (9,8)   R (5,4)

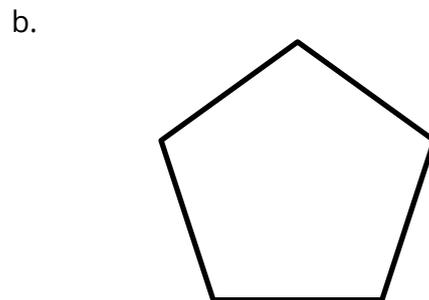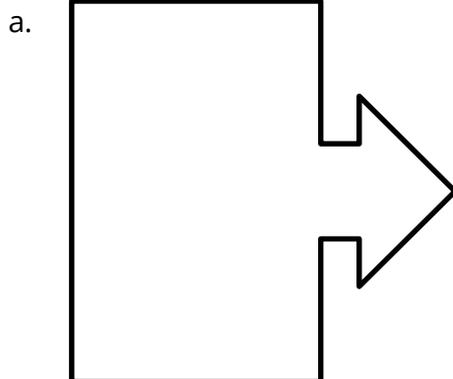Join the 3 points to form the shape PQR.

What is the name for this type of triangle?

                                                          ....

9) Draw any lines of symmetry on the following shapes:

a.

b.

10) For Ben's birthday he goes to the cinema. Tickets cost £4.85 for children and £6.55 for adults. In his party there are 3 children and 2 adults.

    a. How much do the tickets cost in total?

....

    b. Ben's Mum hands the cashier two £20 notes for the tickets. How much change does she receive?

....

    c. The film starts at 13.25 and finishes at 3:45pm. How long does it last?

........Hour(s)...........Mins

11) Simon wants to buy 13 small bottles of drink for a party. A shop sells them at: 14p for 1 bottle; 25p for two bottles; 60p for a pack of 5 bottles. What is the smallest amount of money he needs to spend? [Give your answer in £s]

....

12) 632 boys and 34 teachers are going on a school trip to Alton Towers. They are travelling by coach. If each coach can carry 48 passengers, how many coaches will be needed?
[Show all your workings]

....

13) After tennis practice, Andy collects 3 times as many balls as Novak. They collect 44 balls altogether. How many did Andy collect?

....

14) Usain runs four times as fast as his dad. His dad runs 5 times faster than his pet tortoise, Turbo. They all set off together for a run along the same straight path. After Usain has run 100m, how far apart are his dad and Turbo the tortoise?

....

15) Mr Heathcote needs to cover a floor measuring 4m by 3m. There are two possible options:

Acorn Tiles	**Carpet**
50cm x 50cm	£12 per square metre
Cost £3 each	Fitting cost £40

Which option is the cheapest? Show all your workings & explain clearly.

....

16) What is the value of letters A, B and C? The row and column totals are shown.

			Row Total
B	**B**	**C**	26
A	**C**	**C**	44
B	**A**	**C**	33

Column Total: 22 33 48

A= ....   B= ....   C=....................