Name:

OUNDLE
School

2016 Junior Entrance Examination
First Form Entry

Mathematics

Time Allowed: 60 minutes

Instructions

- Attempt all questions.
- All working and answers must be shown on this paper. Marks will be given for demonstrating your method.
- Calculators are ***not*** permitted.

1. (a) Tesco has 82 stores in Wales and 79 stores in Scotland.
How many stores does Tesco have in Wales *and* Scotland?

Answer ……

(b) Forty-five thousand one hundred and thirty one flights leave Heathrow airport each month. In one particular month, seven thousand eight hundred and ninety five were cancelled.
How many flights from Heathrow went ahead that month?

Answer ……

(c) A box contains 78 tissues. How many tissues would there be in 46 boxes?

Answer ……

(d) A boy shares £24.48 with two other boys. If all three boys get the same amount, how much does each one get?

Answer ……

(e) 13053 cakes need to be packaged into boxes which each contain 19 cakes.
How many boxes are needed?

Answer ……

(g) Work out 4 809 + 47 643 – 809.

Answer ……

2. Calculate the following

(a) $5 + 7 - 9 + 3 - 14$

Answer ……

(b) $9 \times (-5)^2 \times 2 \times (-1)$

Answer ……

3. Insert brackets to make the following statements correct

(a) $3 \times 6 \div 2 + 1 = 6$

(b) $8 \times 5 - 6 \times 1 + 4 = 10$

4. (a) Insert the digits 1 to 5 to make this sum correct (use each digit only once).

$$\begin{array}{rcc} & & \ldots. \\ & \ldots. & \ldots. \\ + & \ldots. & \ldots. \\ \hline & 6 & 0 \end{array}$$

5. A book usually costs £18.60 but it is reduced by 15%.
How much does it cost now?

Answer ……

6. a and b are two *different* positive whole numbers which make the following statement true

$$3a + 2b = 30$$

Find two possible pairs of numbers which make the statement true.

First pair $a =$ …… $b =$ ……

Second pair $a =$ …… $b =$ ……

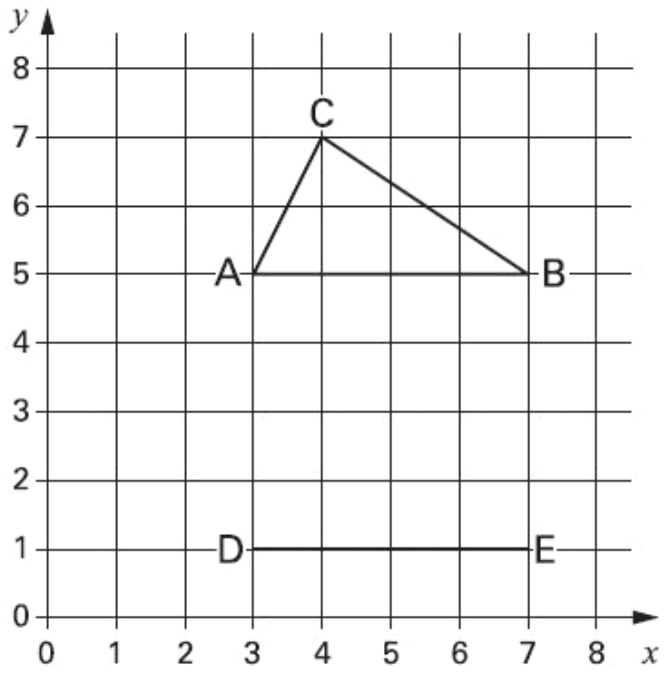
7. p and q are whole numbers. p is 150 greater than q.
The following statement is also true

$$p + q = 1000$$

Calculate the numbers p and q.

$p =$ …… $q =$ ……

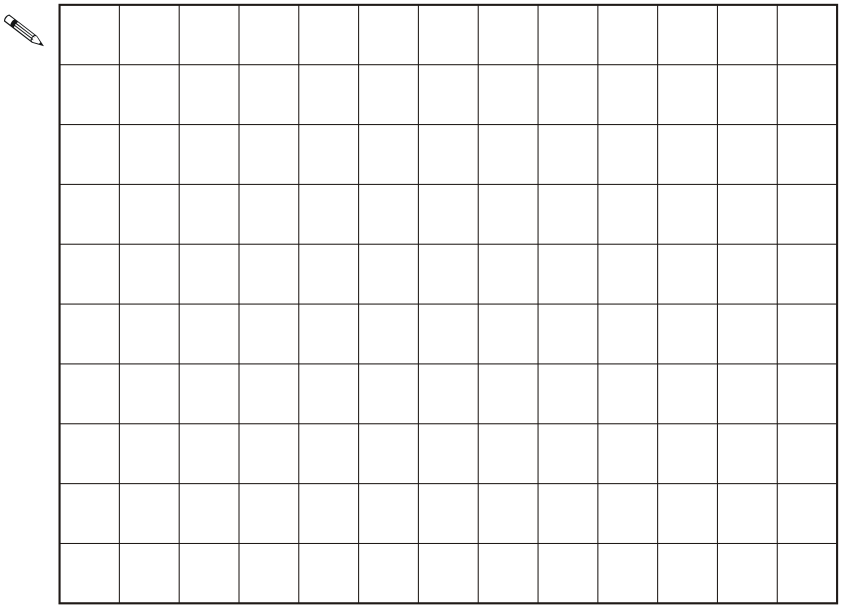
8. Kyle has drawn a triangle ABC on this grid.



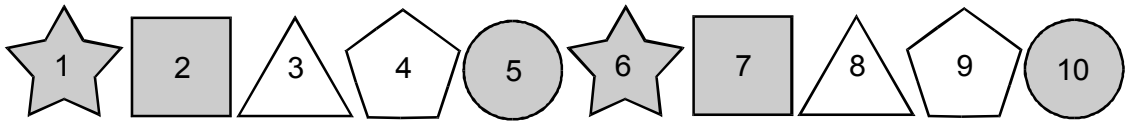
Holly has started to draw an identical triangle DEF.
What will the coordinates be of point F?

Coordinates: (…… , ……)

9. On the grid below draw a pentagon that has three right angles.



10. Below is a repeated pattern of numbered shapes.



(a) If the pattern continues in the same way, write the numbers of the next two *stars* in the pattern.

Answers …… , ……

(b) What shape will number 35 be?

Answer ……

11. What is three-quarters of seven eighths?
Write your answer in words.

Answer ……

12. Write the following numbers in order, starting with the lowest.

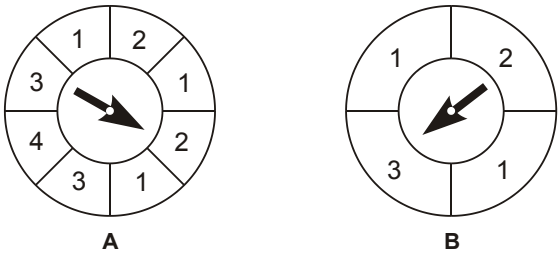
$$\frac{7}{8} \qquad \frac{13}{15} \qquad \frac{17}{20} \qquad \frac{25}{30} \qquad \frac{11}{12}$$

Answer ……, ……, ……, ……, ……

13. Two workers are paid a total of £506 by their employer. If one is paid 20% more than the other, how much do they each earn?

Answer ……

14. Lee has two spinners



(a) What is the probability of spinning a 4 on spinner A?

Answer: .....

(b) On which spinner is he more likely to get a 1? Give reasons.

Answer: .....

15. You have the numbers −13, −0.5, 3 and 7 available.
Any of these numbers can be used in each part of the question.

(a) What is the highest number that can be obtained by adding two of the above numbers?

Answer: .....

(b) What is the lowest number that can be obtained by adding two of the above numbers?

Answer: .....

(c) What is the highest number that can be obtained by subtracting two of the above numbers?

Answer: .....

(d) What is the lowest number that can be obtained by multiplying two of the above numbers?

Answer: .....

16. Write down the missing number in each part:

(a) $28 \times ? = 5\,600$

Answer: .....

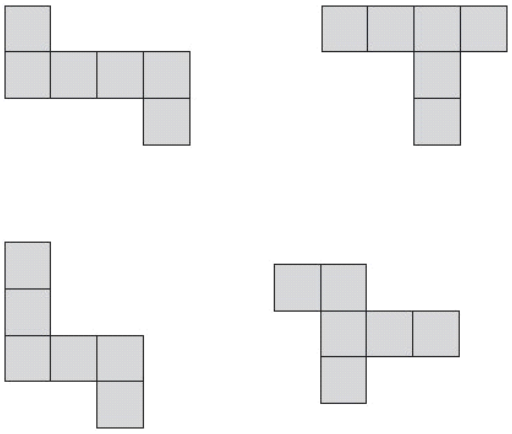
(b) $2.8 \times ? = 5\,600$

Answer: .....

(c) $5\,600 \div ? = 28\,000$

Answer: .....

17. Below are four diagrams.
Circle each diagram that is the net of a cube.



18. Calculate $45412 \times 834 + 45412 \times 162 + 45412 \times 2$.

Answer: ……