

Name:



OUNDLÉ

School

2019 Junior Entrance Examination
Second 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.

Question 1

- (a) A coffee shop sells 3428 cups coffee one day.
The coffee shop also sells 2867 cups of tea the same day.
How many teas and coffees were served altogether that day?

Answer [1]

- (b) A book has 347 pages.
How many pages are there in 35 copies of this book?

Answer [2]

- (c) 2341 apples need to be loaded into baskets that fit 46 apples each.
How many baskets will be needed?

Answer [2]

- (d) Interest is earned at a rate of 9% per year.
How much interest is earned on a starting balance of £2864, deposited for one year?

Answer [2]

- (e) Subtract two sevenths from seven sixths.

Answer [2]

Question 2

Calculate each of the following

(a) $4 + 3 - 2 - 1$

Answer [1]

(b) $4 + 3 \div 2 - 1$

Answer [2]

(c) $4 - (2 - (1 - 2))$

Answer [2]

Question 3

If $x = -3$, $y = 2$ and $z = -1$, find the value of

(a) $x + y - z$

Answer [2]

(b) xz

Answer [2]

(c) $-2x^2$

Answer [2]

(d) $xy - z$

Answer [2]

Question 4

- (a) I think of a number, then subtract seven. The result is eighteen.
What was the original number?

Answer [2]

- (b) I think of a number, multiply it by five, then add six. The result is thirty one.
What was the original number?

Answer [2]

- (c) I think of a number, double it, then add nine. The result is negative three.
What was the original number?

Answer [2]

Question 5 Solve the following equations, giving your answers as whole numbers or fractions.

- (a) $3x - 7 = 5x + 7$

Answer [2]

- (b) $\frac{1}{2}x - 5 = x + 6$

Answer [2]

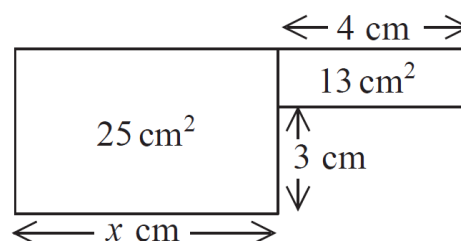
Question 6

In a box of chocolates the ratio of white to milk to dark chocolates is 3 : 7 : 5
There are 8 more dark chocolates than white chocolates.
How many milk chocolates are there?

Answer [2]

Question 7

The areas of the two rectangles in the diagram are 25 cm^2 and 13 cm^2 as indicated.
What is the value of x ?



Answer [3]

Question 8

Last week Evariste and Sophie both bought some stamps for their collections. Each stamp Evariste bought cost him £1.10, whilst Sophie paid 70p for each of her stamps. Between them they spent exactly £10. How many stamps did they buy in total?

Answer [3]

Question 9

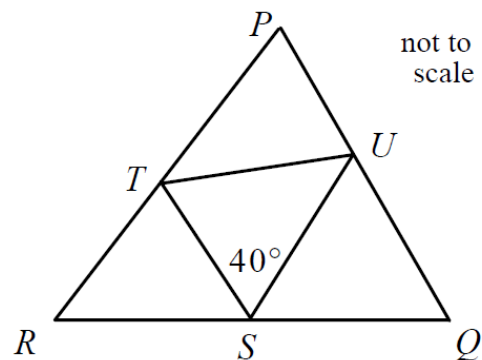
Gill leaves Lille by train at 09:00. The train travels the first 27 km at 96 km/h. It then stops at Lens for 3 minutes before travelling the final 29 km to Lillers at 96 km/h. At what time does Gill arrive at Lillers?

Answer [3]

Question 10

The points S , T , U lie on the sides of the triangle PQR , as shown, so that $QS = QU$ and $RS = RT$.
Angle $TSU = 40^\circ$

What is the size of angle TPU ?
Explain your reasons.



Answer [3]