



OUNDLE

School

EXAMINATION PAPER

Junior Entry 2025

Mathematics

Time allowed: 1 hour

Name: _____

Instructions

- Calculators are **NOT** allowed.
- Write **ALL** your working and answers on this paper. Show enough working on each question to make it clear how you reached your answer.
- Do not spend too long working on any particular question. Do not worry if you do not manage to complete every question.
- You may work in pen or pencil.

Question 1

- (a) A discount of £4.56 is applied to a box of chocolates which normally costs £12.34. Calculate the sale price of the chocolates.

Answer

- (b) A school buys 28 boxes of exercise books, each containing 25 exercise books. After each pupil in the school has received one exercise book there are 17 books remaining.

How many pupils are there in the school?

Answer

- (c) Seven people win a small lottery and the prize money of £4606.14 is shared equally between them. How much does each of the winners receive?

Answer

- (d) A model boat weighing 2.54 lbs can carry a maximum load of 0.48 lbs. Find the total weight of the model boat when fully loaded.

Answer

Question 2 Work out the following, obeying the correct order of operations.

(a) $20 + 25 - 10 + 1$

Answer

(b) $3 + 4 - 5 \times 6$

Answer

(c) $2 + 3 \times 4^2$

Answer

(d) $23 - (4 - 5) \times 6$

Answer

(e) $2 - (34 - 5 \times 6)$

Answer

(f) $20 \times (2 - 5) + 20 \div 2 \div 5$

Answer

Question 3 Insert one or more pairs of brackets to make the following statements correct:

(a) $5 + 4^2 + 3 \div 2 = 12$

(b) $5 + 4^2 + 3 \div 2 = 42$

Question 4 Using the fact that $45 \times 543 = 24435$, write down the missing number in each part.

(a) $4.5 \times 54.3 = ?$

Answer

(b) $? \times 5.43 = 24.435$

Answer

(c) $244.35 \div ? = 450$

Answer

(d) $135 \times 543 = ?$

Answer

(e) $24435 \div ? = 9$

Answer

Question 5 You have the numbers -7 , 5 , 8 and -9 available. Any of these numbers can be used in **each** part of the question, but only once per part.

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

Answer

- (b) What is the smallest number that can be obtained by subtracting one number from another?

Answer

- (c) What is the smallest number that can be obtained by multiplying two of the above numbers?

Answer

- (d) By replacing the missing numbers, what is the greatest value of this calculation

$$(? - ?) \times ?$$

Answer

Question 6

- (a) Which fraction is bigger, $\frac{4}{9}$ or $\frac{5}{12}$?

Answer

- (b) Write down a fraction which is greater than $\frac{4}{17}$, but less than $\frac{5}{17}$.

Answer

- (c) Calculate $\frac{3}{8} + \frac{5}{24}$.

Answer

- (d) Calculate $\frac{5}{9} \times \frac{18}{35}$, remembering to simplify your answer.

Answer

- (e) What is the result if $1\frac{3}{4}$ is taken from $4\frac{1}{4}$?

Answer

Question 7

In this question you may use the grid below to help you answer the questions.

A straight line passes through the points $(6,3)$ and $(13,17)$.

- (a) (i) The point $(11, a)$ also lies on the line. Calculate the value of a .

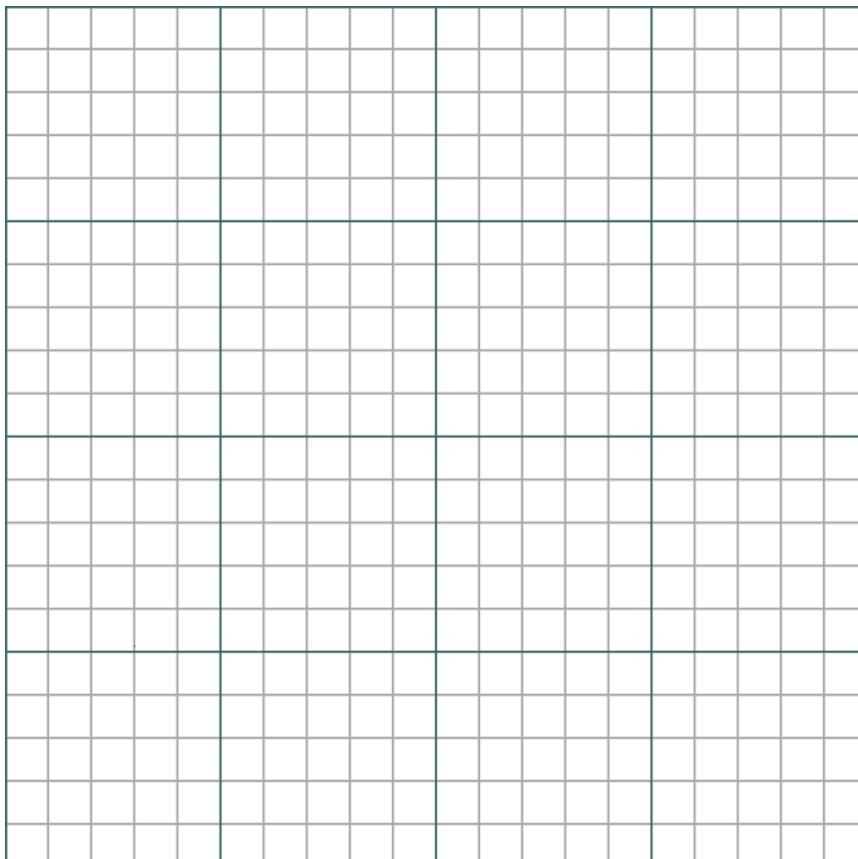
Answer

- (ii) The point $(b, 9)$ also lies on the line. Calculate the value of b .

Answer

- (b) Another point $(6,11)$ forms a triangle with $(6,3)$ and $(13,17)$. Find the area of the triangle.

Answer



Question 8

If it takes two teachers 56 minutes to mark forty exam papers, how long will it take for 8 teachers to mark 100 exam papers?

Answer

Question 9

Eva buys a box of 24 chocolate bars for £20 and sells them to her friends at £1.10 each. What is her percentage profit?

Answer

Question 10

A bag contains red, yellow, and green beads in the ratio 2: 3: 8. There are 24 more green beads than there are red beads. How many yellow beads are there?

Answer

Question 11

m and n are two *different, positive* whole numbers which make the following statement true

$$3m + 4n = 60$$

How many possible pairs of numbers make the statement above true?

Answer

Question 12

The symbol $\otimes$ represents a mathematical operation which works as follows:

*find the sum of the two numbers and divide by their product,
leaving your answer as a fraction (which may be simplified)*

ie. $5 \otimes 7 = \frac{5+7}{5 \times 7} = \frac{12}{35}$

For each part, write down the missing value

(a) $4 \otimes 6 = ?$

Answer

(b) $8 \otimes ? = \frac{7}{24}$

Answer

(c) $4 \otimes (3 \otimes 6) = ?$

Answer

(d) $? \otimes (2 \otimes 2) = \frac{11}{10}$

Answer