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PRACTICE QUESTION PAPER • ORIGINAL QUESTIONS IN THE STYLE OF CAMBRIDGE

Mathematics

Lower Secondary - Stage 7

Paper 1 (non-calculator)

Time: 45 minutes

Candidate name

Class

Date

You must answer on the question paper.

You will need: pencil, pen, ruler. **You must not use a calculator.**

INSTRUCTIONS

- Answer **all** questions.
- Write your answer in the space provided.
- Show all your working; you may get marks for correct working.
- Use a pencil for any diagrams or graphs.

INFORMATION

- The total mark for this paper is 50.
- The number of marks for each question or part question is shown in brackets [].
- Diagrams marked “not drawn accurately” must not be measured.

For examiner use

Total / 50

1 Write down the next number in this sequence. [1]

3 8 13 18

Answer

2 (a) Write 0.07 as a fraction. [1]

Answer

(b) Round 4.762 to 1 decimal place. [1]

Answer

3 Calculate $-8 + 5$ [1]

Answer

4 (a) Calculate $\frac{3}{4} + \frac{1}{8}$ [1]

WORKING

Answer

(b) Calculate $\frac{2}{5}$ of 35 [1]

WORKING

Answer

- (c) Write $\frac{12}{30}$ in its simplest form. [1]

WORKING

Answer

- 5 Write these numbers in order of size. Start with the smallest. [2]

0.4 0.35 0.409 0.04

smallest

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largest

- 6 (a) Write down all the factors of 18. [2]

WORKING

Answer

- (b) Here are five numbers. [1]

21 23 27 29 33

Write down the **two** prime numbers.

Answer

- 7 (a) Work out 6^2 [1]

Answer

- (b) Work out the square root of 49. [1]

Answer

- 8 (a) Simplify $5a + 3a - 2a$ [1]

Answer

- (b) Work out the value of $3x + 4$ when $x = 5$ [1]

WORKING

Answer

- 9 (a) Solve $x + 9 = 15$ [1]

WORKING

Answer

- (b) Solve $2n - 3 = 11$ [2]

WORKING

Answer

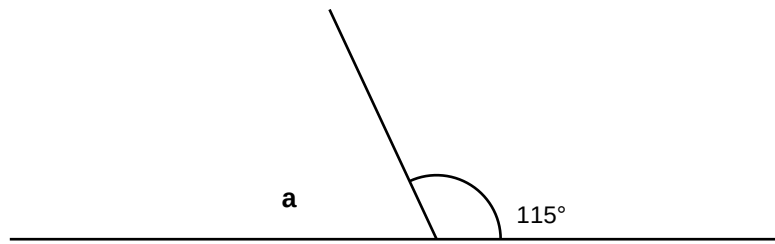
- 10 Write an expression for: *multiply n by 4, then subtract 5* [1]

Answer

11 The diagrams are **not** drawn accurately.

(a) Work out the size of angle a .

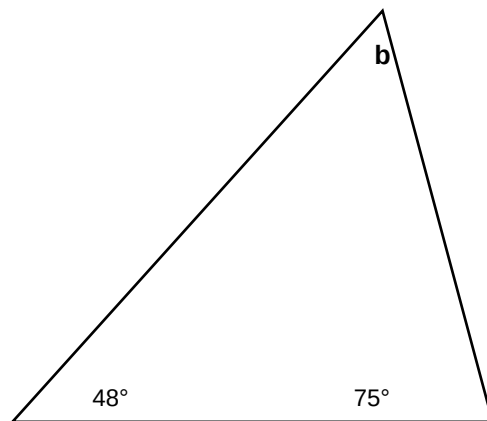
[1]



Answer °

(b) Work out the size of angle b .

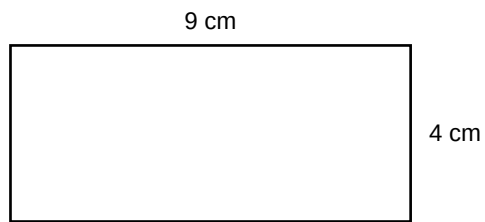
[2]



WORKING

Answer °

- 12 A rectangle measures 9 cm by 4 cm.



- (a) Work out the perimeter of the rectangle. [1]

WORKING

Answer cm

- (b) Work out the area of the rectangle. [1]

WORKING

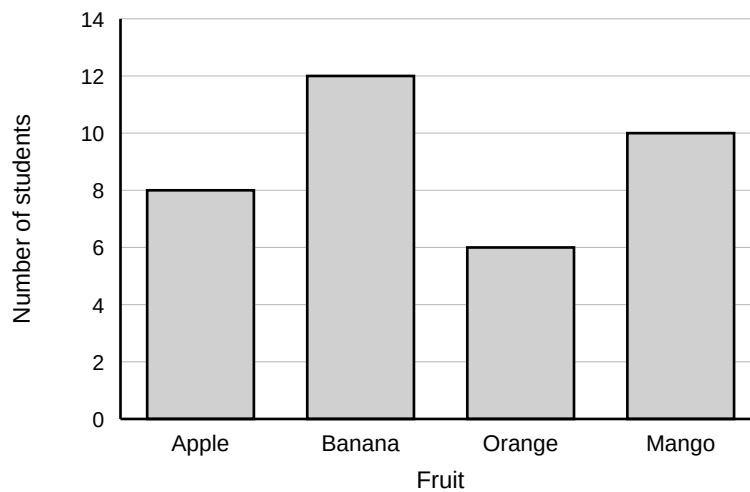
Answer cm²

- (c) A square has a perimeter of 28 cm. [1]
Work out the length of one side of the square.

WORKING

Answer cm

- 13** Some students each chose their favourite fruit.
The bar chart shows the results.



- (a) How many students chose banana? [1]

Answer

- (b) How many students took part in the survey? [1]

WORKING

Answer

- (c) What fraction of the students chose apple? [2]
Give your answer in its simplest form.

WORKING

Answer

- 14** Here are five numbers.

7 2 9 2 10

- (a) Work out the median. [1]

WORKING

Answer

- (b) Work out the mean. [1]

WORKING

Answer

- (c) Work out the range. [1]

WORKING

Answer

- 15** (a) 4 pens cost \$6. [2]
Work out the cost of 10 pens.

WORKING

Answer

- (b) Share 40 sweets in the ratio 3 : 5. [2]

WORKING

Answer

- 16** (a) Write 35% as a decimal. [1]

Answer

- (b) Work out 20% of 60. [1]

WORKING

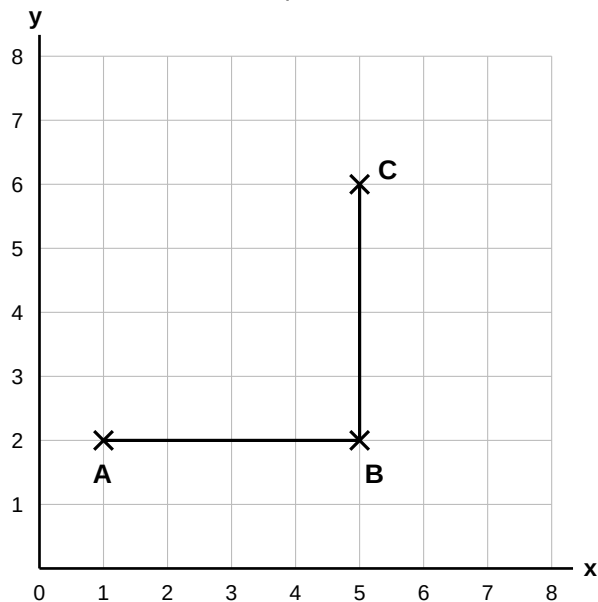
Answer

- (c) Write $\frac{3}{20}$ as a percentage. [1]

WORKING

Answer %

- 17 A, B and C are three vertices of a square ABCD.



- (a) Write down the coordinates of D. [1]

Answer

- (b) Write down the coordinates of the midpoint of AB. [1]

Answer

- (c) Write down the number of lines of symmetry of a square. [1]

Answer

- 18** Sam buys 3 notebooks at \$2.40 each and 1 pen for \$1.85. [3]
He pays with a \$10 note.
How much change does Sam get?

WORKING

Answer

- 19** A film starts at 14:45. [2]
It lasts 1 hour 50 minutes.
At what time does the film end?

WORKING

Answer

- 20** A bag contains 3 red counters, 5 blue counters and 2 green counters.
Ali takes one counter from the bag without looking.
- (a) Write down the probability that the counter is blue. [1]

Answer

- (b) Which colour is Ali least likely to take? [1]

Answer