KING'S COLLEGE SCHOOL

WIMBLEDON

11+ for 2021 entry
Pre-test for 2023 entry
Specimen Paper 2021

MATHEMATICS

50 minutes
to complete **both** Section A **and** Section B

SECTION B

You are advised to spend approximately 30 minutes on this section.

1. Do all your written work on this question paper.

2. Calculators must not be used.

3. Attempt all questions in Section B.

Surname: ....

First names: ....

QUESTION 1

(i)   Work out 273 x 23.

Answer: _____

(ii)   Work out 595 ÷ 17.

Answer: _____

(iii)   Write down two multiples of 2001.

Answer: _____

Answer: _____

(iv)   Write down two factors of 2001.

Answer: _____

Answer: _____

(v)   Find the cost of 31 litres of petrol at 81p per litre.

Answer: _____

(vi)   In a 'third off' sale a bike is sold for £114.
        How much would it have sold for before the sale?
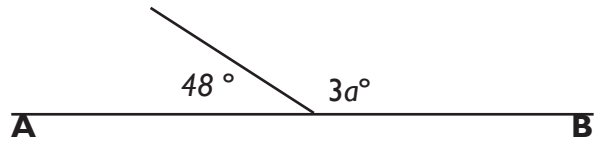

Answer: _____

QUESTION 2

(i)   In 25 minutes, through what angle does the minute hand of a clock pass?

Answer: _____

(ii)   In the diagram AB is a straight line.
        Calculate the value of angle a°.

48 °   3a°

A _____ B

Answer: a° = _____

(iii)   A square has a perimeter of 96cm.

  (a)   Calculate the length of one side.

Answer: length = _____

  (b)   Find the area of the square.

Answer: area = _____

  (c)   Give a sketch, not to scale, of a rectangle, showing the length of its sides,
        which has the same area as the square.

Answer: length = _____
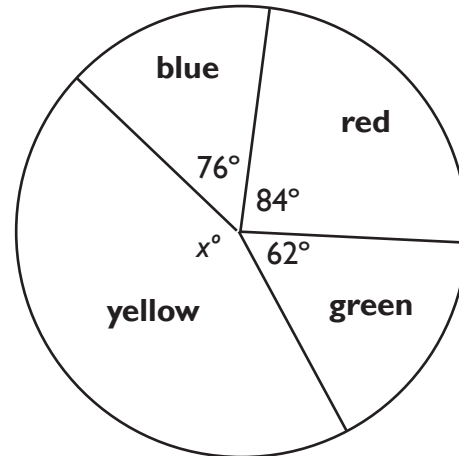
  (d)   Find the perimeter of your rectangle.

Answer: perimeter = _____

Turn over

QUESTION 3

The pie chart shows the favourite colour of some boys.

(a)   Calculate the value of x.

Answer: _____

Red is the favourite colour of 126 boys.

(b)   Calculate the number of boys whose favourite colour is:

(i)   green.

Answer: _____

(ii)   yellow.

Answer: _____

(iii)   not blue.

Answer: _____

(c)   Calculate the total number of boys.

Answer: _____

QUESTION 4

Here is a pattern of numbers.

$$\text{Row } 1: 1 + 2^2 = 5$$
$$\text{Row } 2: 2 + 3^2 = 11$$
$$\text{Row } 3: 3 + 4^2 = 19$$

(a)   Write out the next two rows.

Answer: Row 4:

Answer: Row 5:

(b)   Write out Row 9.

Answer: Row 9:

(c)   Write out Row 49.

Answer: Row 49:

(d)   Find the row which ends 419.

Answer: _____

(e)   What is the general rule to describe each row if you call the row number n ?

Answer: _____

NOW GO BACK AND CHECK YOUR WORK

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