Mathematics Equivalence Test

Sample Papers

There are two papers, Non-calculator and Calculator, each worth 50 marks.

These papers reflect the current National Curriculum and GCSE for England.

You are assessed across the two papers.

Paper 2

You MAY use a calculator.

Time: 1 hour

Answer all questions in the answer spaces.

Show your working where relevant.

4   Use this list to complete the statements.

$$\frac{4}{3} \qquad 4 \qquad 30\% \qquad \frac{1}{4} \qquad 0 \cdot 4 \qquad 3 \qquad \frac{3}{4} \qquad 4\% \qquad \frac{1}{3} \qquad 40$$

The reciprocal of 4 is ……….

A score of 18 out of 60 as a proportion is ……….

To work out 25% the multiplier is ……….

The scale factor from 90 g to 30 g is ……….

[4]

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5   Write the name of each shape.

I am a quadrilateral.
I have no line (reflection) symmetry.

[2]

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6   A television is for sale at £790 plus VAT at 20%.
In a sale the total price is then reduced by 25%.

Work out the sale price.

£ …………………… [3]

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7   **(a)**   Complete this sentence.

The gradient of $y = 3x + 11$ is …………. and the y -intercept is …………. .   [2]

(b)   Rearrange $y = 3x + 11$ to make x the subject.

$x =$ ………………… [3]

8 Shaun is making patterns with matchsticks and counters.
The diagram shows Pattern 3 and Pattern 4.

(a) Write down the ratio sticks : counters
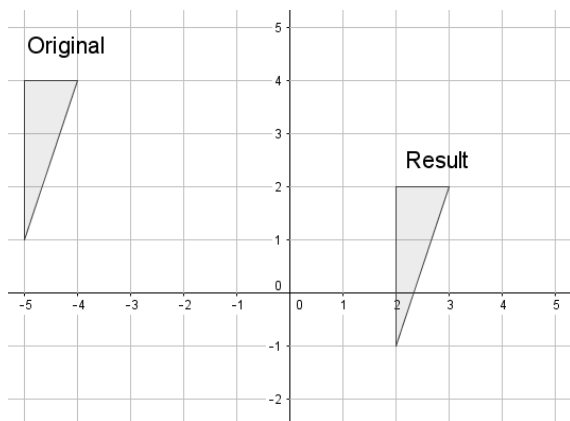for the pattern.
Give your answer in its simplest form.

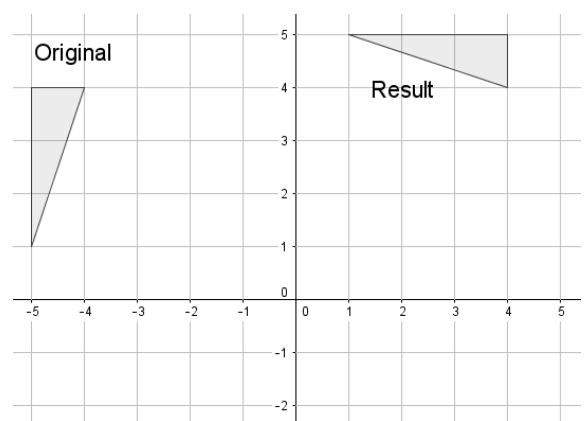……………………..…… [2]

(b) Complete these statements.

Pattern 10 has ………..……… sticks. [1]

Pattern *n*

10 Describe each transformation in full.

(i)

(ii)

(i) ………………………….…………………………………………………………....………… [1]

(ii) …………………………………………………………………………………….………….
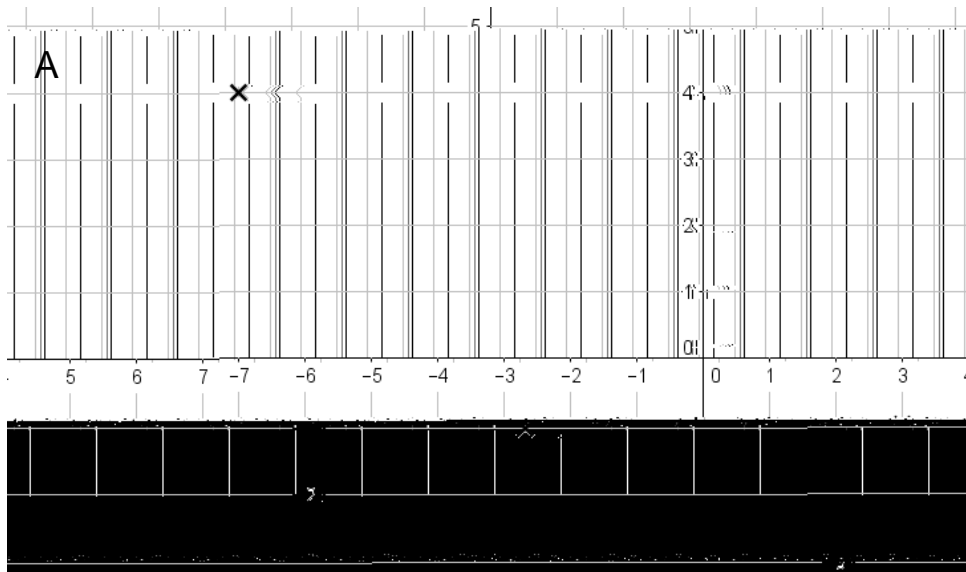
……………………………………………………………………………………....………… [2]

(b) The point C divides the line AB in the ratio 1 : 4.

Write down the coordinates of the point C.

……………….……… [2]

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11 Which of the following is equal to $\dfrac{4{\cdot}5\times 10^2}{8^2+\sqrt{36}+\sqrt[3]{125}}$?

Circle your answer.

$$1{\cdot}2 \qquad 4{\cdot}2 \qquad 6 \qquad 6{\cdot}2 \qquad 8{\cdot}5 \qquad 11{\cdot}4$$

[2]