

Enlargement with a positive scale factor

Grade 4 | Foundation and Higher | 11 questions, 28 marks

GCSE Maths topic practice



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Name: _____ Date: _____ Score: _____ / 28

- 1 Triangle ABC has vertices at A(1, 1), B(3, 1) and C(3, 2).

Triangle ABC is enlarged by scale factor 2 with centre (0, 0).

Write down the coordinates of the vertices of the image A', B' and C'.

(2 marks)

Answer _____

- 2 Triangle PQR has vertices at P(1, 2), Q(2, 2) and R(2, 4).

PQR is enlarged by scale factor 3 with centre (0, 0).

Write down the coordinates of P', Q' and R'.

(2 marks)

Answer _____

- 3 A triangle has vertices at (1, 2), (2, 2) and (1, 4).

The triangle is enlarged by scale factor 3, centre the origin.

Write down the coordinates of the vertices of the image.

(2 marks)

Answer _____

- 4 Triangle DEF has vertices at D(2, 4), E(6, 4) and F(6, 8).

DEF is enlarged by scale factor $\frac{1}{2}$ with centre (0, 0).

Write down the coordinates of D', E' and F'.

(2 marks)

Answer _____

- 5 Triangle ABC is enlarged to give triangle PQR.
AB = 6 cm and PQ = 15 cm. BC = 4 cm.
a. Work out the scale factor of the enlargement.
b. Work out the length of QR.

(3 marks)

Answer _____

- 6 A triangle has vertices at (4, 2), (8, 2) and (4, 6).
The triangle is enlarged by scale factor $\frac{1}{2}$, centre the origin.
Write down the coordinates of the vertices of the image.

(2 marks)

Answer _____

- 7 Rectangle ABCD has vertices at A(2, 1), B(6, 1), C(6, 3) and D(2, 3).
ABCD is enlarged by scale factor 1.5 with centre A.
Write down the coordinates of the vertices of the image.

(3 marks)

Answer _____

- 8 Triangle PQR has vertices at P(2, 1), Q(4, 1) and R(4, 3).
PQR is enlarged by scale factor 2 with centre (1, 1).
Write down the coordinates of P', Q' and R'.

(3 marks)

Answer _____

- 9 Rectangle A has vertices at (1, 1), (3, 1), (3, 2) and (1, 2).
Rectangle B has vertices at (2, 2), (6, 2), (6, 4) and (2, 4).
Describe fully the single transformation that maps rectangle A onto rectangle B.

(2 marks)

Answer _____

10 Triangle S has vertices at (2, 2), (3, 2) and (2, 4).

Triangle T has vertices at (3, 3), (5, 3) and (3, 7).

Describe fully the single transformation that maps triangle S onto triangle T.

(3 marks)

Answer _____

11 Triangle A has vertices at (2, 2), (4, 2) and (2, 6).

Triangle B has vertices at (1, 1), (2, 1) and (1, 3).

Triangle C has vertices at (-1, 1), (-2, 1) and (-1, 3).

a. Describe fully the single transformation that maps triangle A onto triangle B.

b. Describe fully the single transformation that maps triangle B onto triangle C.

(4 marks)

Answer _____

End of questions | Total 28 marks