

Name: _____

GCSE (1 – 9)

Enlargement Using a Negative Scale Factor

Instructions

- Use black ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided there may - be more space than you need.
- Diagrams are NOT accurately drawn, unless otherwise - indicated.
- You must show all your working out.

Information

- The marks for each question are shown in brackets use - this as a guide as to how much time to spend on each question.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

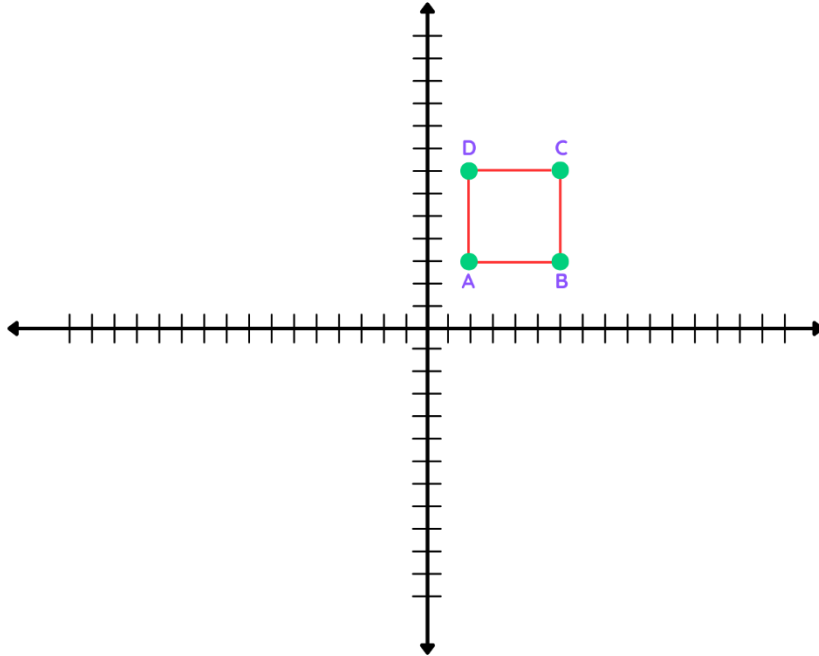
Q1. Point $P(4, 6)$ is enlarged with a negative scale factor of -2 from the center of enlargement $(0, 0)$.

Find the coordinates of the new point.

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(Total 5 marks)

Q2. For the figure given below, Enlarge the rectangle by a scale factor of -3 with the center of enlargement at $(0, 0)$.

Determine the coordinates of the enlarged rectangle.



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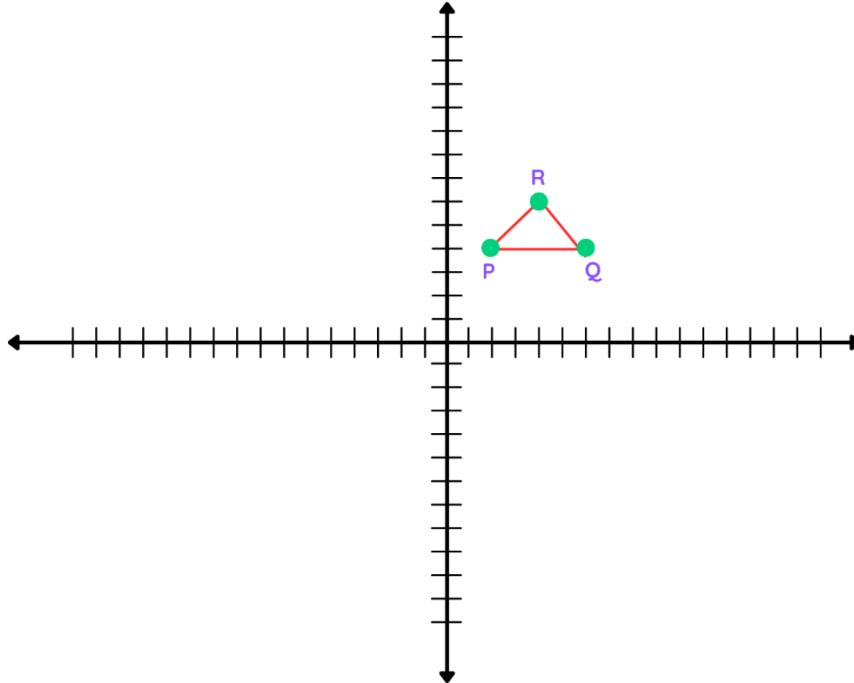
(Total 5 marks)

Q3. The center of enlargement is $(2, 2)$, and a square with vertices $A(3, 3)$, $B(5, 3)$, $C(5, 5)$, and $D(3, 5)$ is enlarged by a scale factor of -1 . Find the coordinates of the vertices of the enlarged square.

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(Total 5 marks)

Q4. For the figure given below, Enlarge the triangle using a negative scale factor of -1.5 with the center of enlargement at $(1, 1)$.

Find the coordinates of the image.



.....
(Total 5 marks)

Q5. Point A(5, 7) is enlarged by a scale factor of -4 with the center of enlargement at (1, 2).

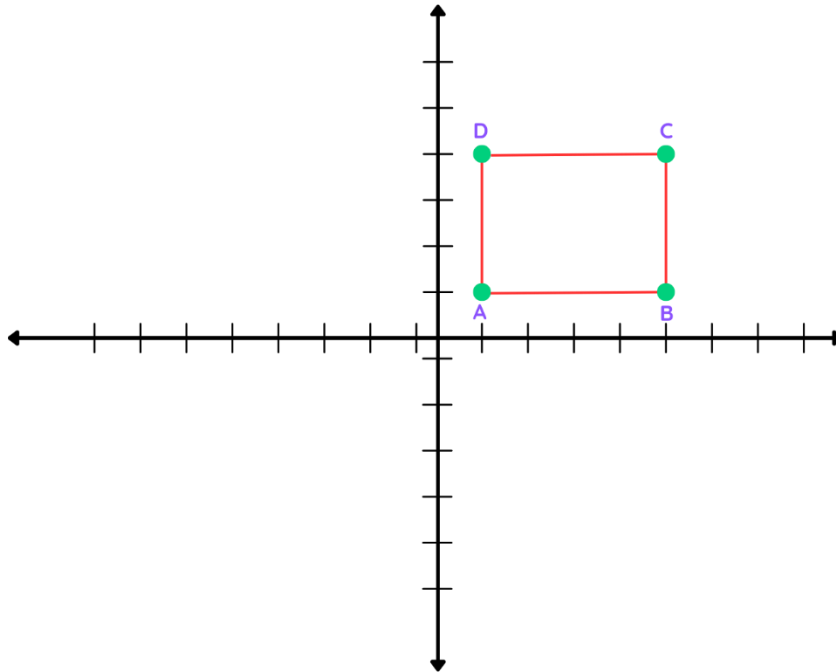
.....
(Total 5 marks)

Q6. A triangle has vertices $X(2, 2)$, $Y(6, 2)$, and $Z(4, 6)$.

It is enlarged by a scale factor of -2 , with the center of enlargement at $(3, 3)$.

.....
(Total 5 marks)

Q7. For the figure given below, It is enlarged by a scale factor of -1.5 from the center of enlargement $(2, 2)$.



.....
(Total 5 marks)

Q8. A pentagon has vertices $P(2, 3)$, $Q(4, 5)$, $R(6, 3)$, $S(5, 1)$, and $T(3, 1)$.

It is enlarged by a scale factor of -0.5 with the center of enlargement at $(3, 3)$.

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(Total 5 marks)

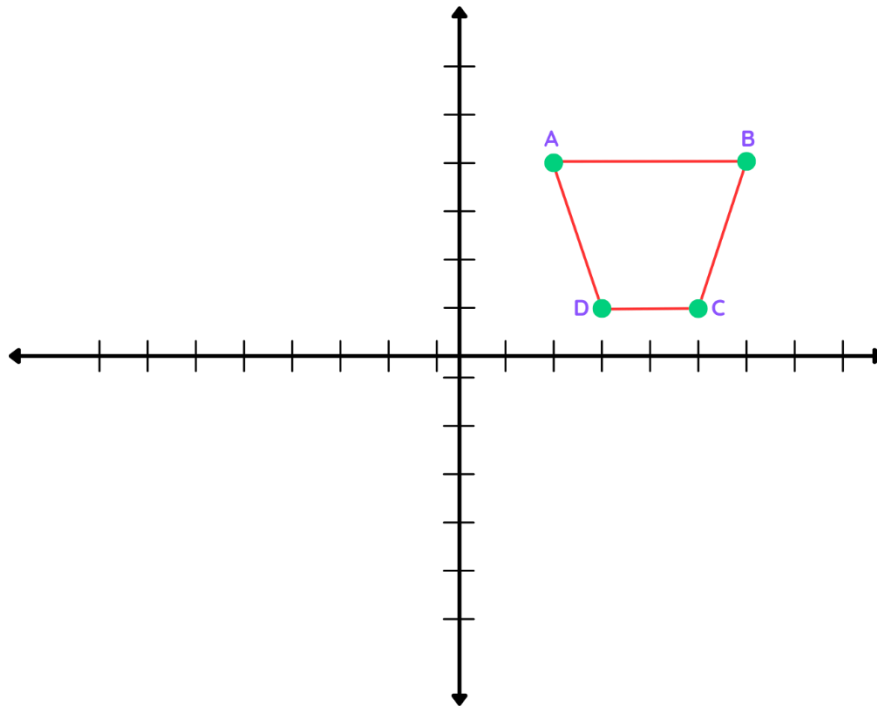
Q9. A triangle has vertices $P(3, 2)$, $Q(7, 2)$, and $R(5, 5)$.

It is enlarged by a negative scale factor of -2 with the center of enlargement at $(4, 4)$. Find the coordinates of the enlarged triangle.

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(Total 5 marks)

Q10. For the figure given below, It is enlarged by a negative scale factor of -3 with the center of enlargement at $(4, 3)$.

Find the coordinates of the enlarged trapezium.



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(Total 5 marks)