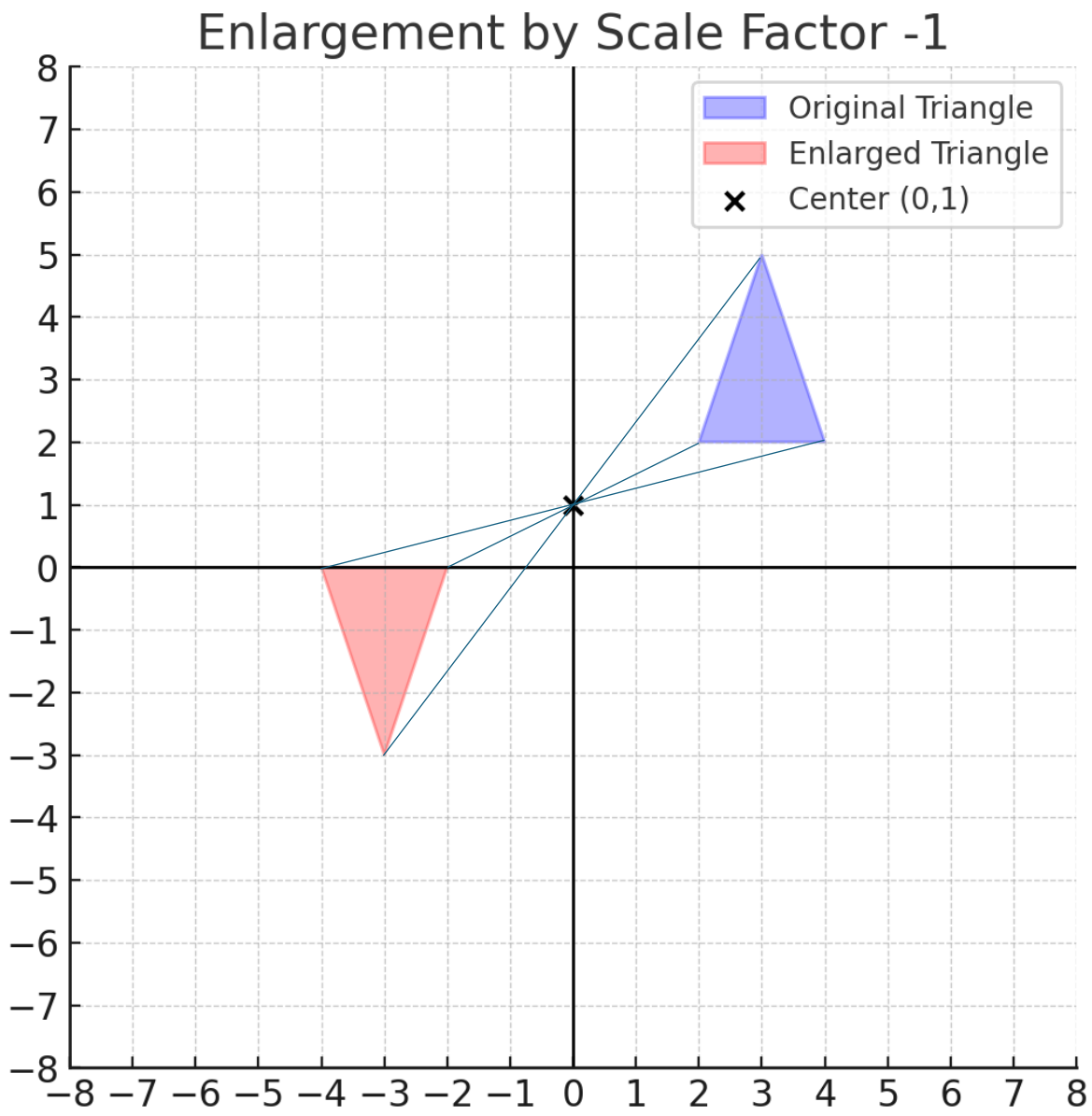
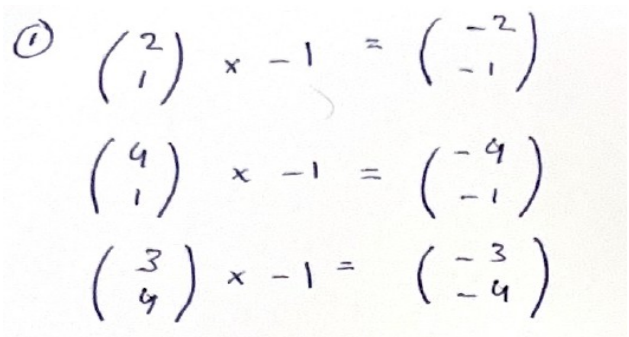
ANSWER SHEET

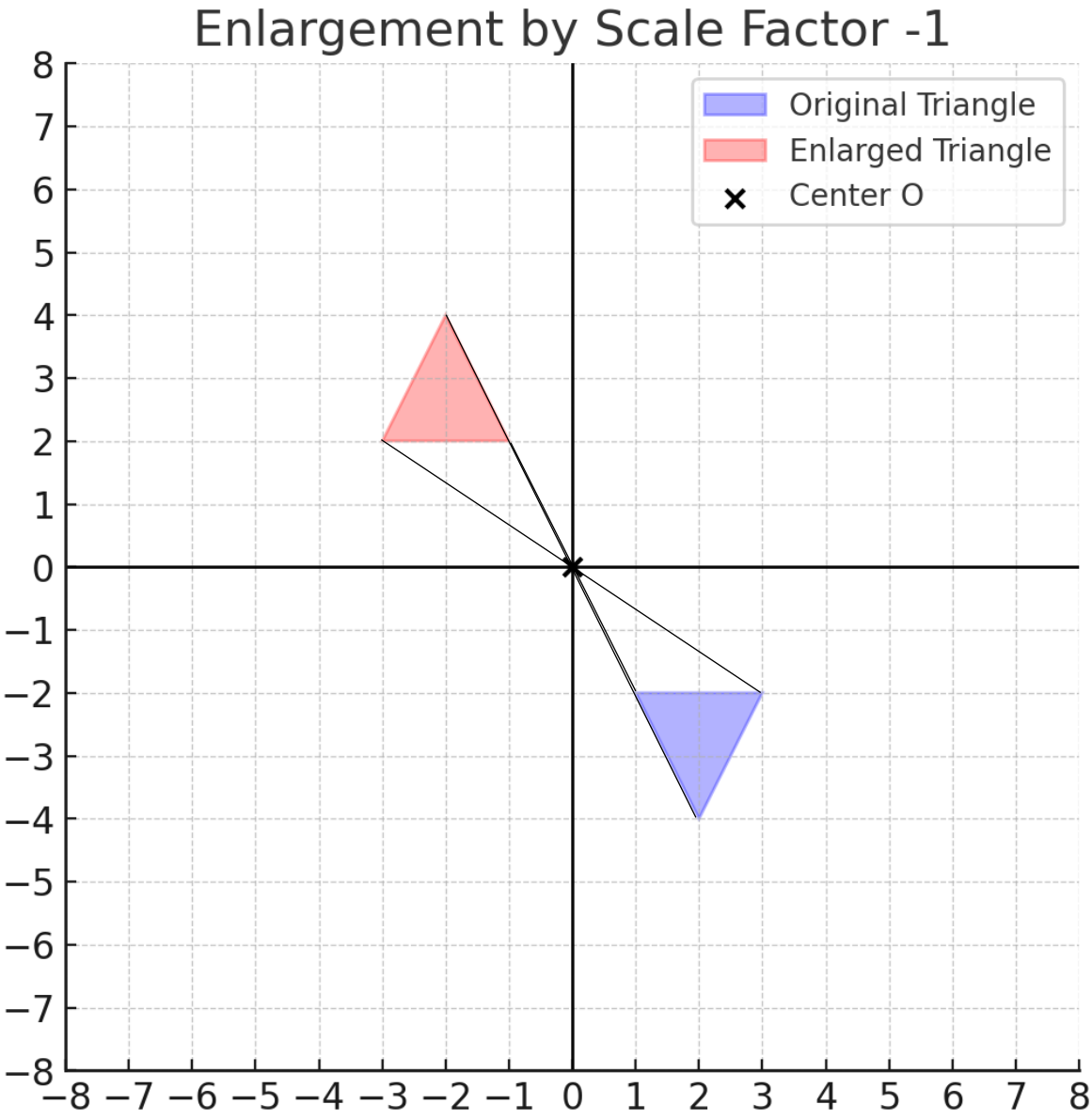
NEGATIVE ENLARGEMENT AND COMBINED TRANSFORMATIONS

Q1-





Q2-

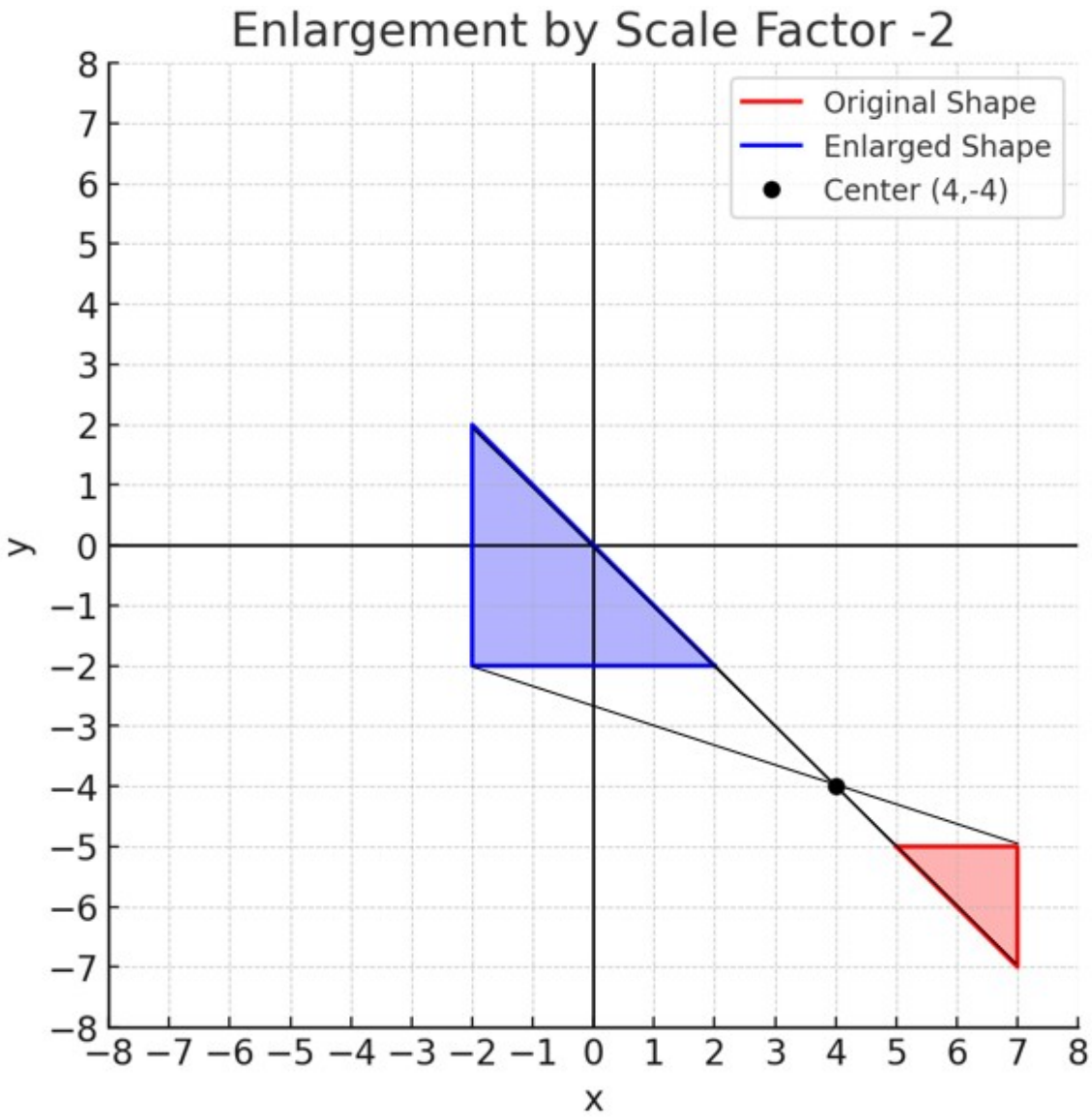


$$\begin{pmatrix} 1 \\ -2 \end{pmatrix} \times -1 = \begin{pmatrix} -1 \\ 2 \end{pmatrix}$$

$$\begin{pmatrix} 3 \\ -2 \end{pmatrix} \times -1 = \begin{pmatrix} -3 \\ 2 \end{pmatrix}$$

$$\begin{pmatrix} 2 \\ -4 \end{pmatrix} \times -1 = \begin{pmatrix} -2 \\ 4 \end{pmatrix}$$

Q3-



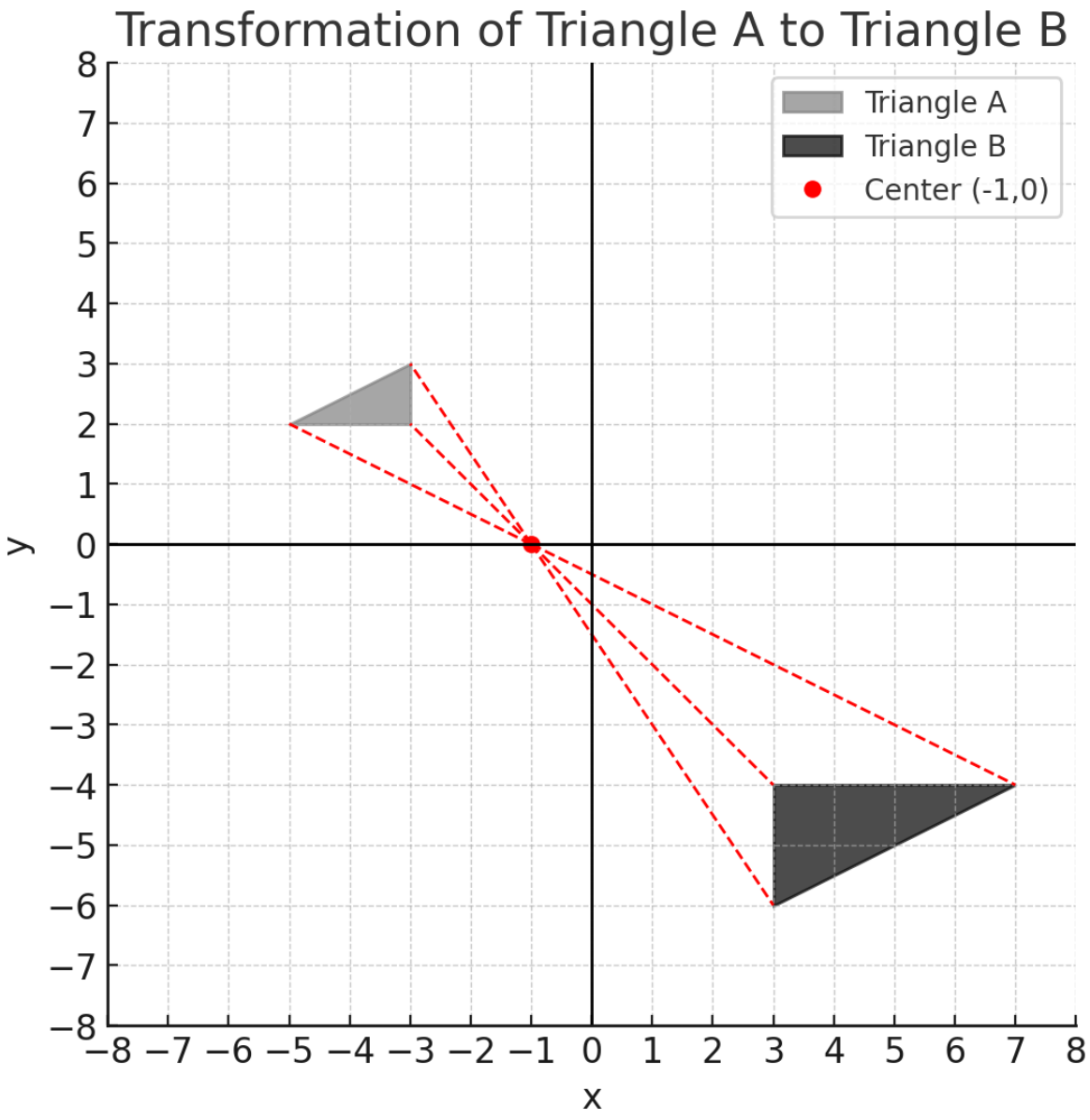
(3)

$$\begin{pmatrix} -1 \\ -1 \end{pmatrix} * -2 = \begin{pmatrix} 2 \\ 2 \end{pmatrix}$$

$$\begin{pmatrix} 3 \\ -1 \end{pmatrix} * -2 = \begin{pmatrix} -6 \\ 2 \end{pmatrix}$$

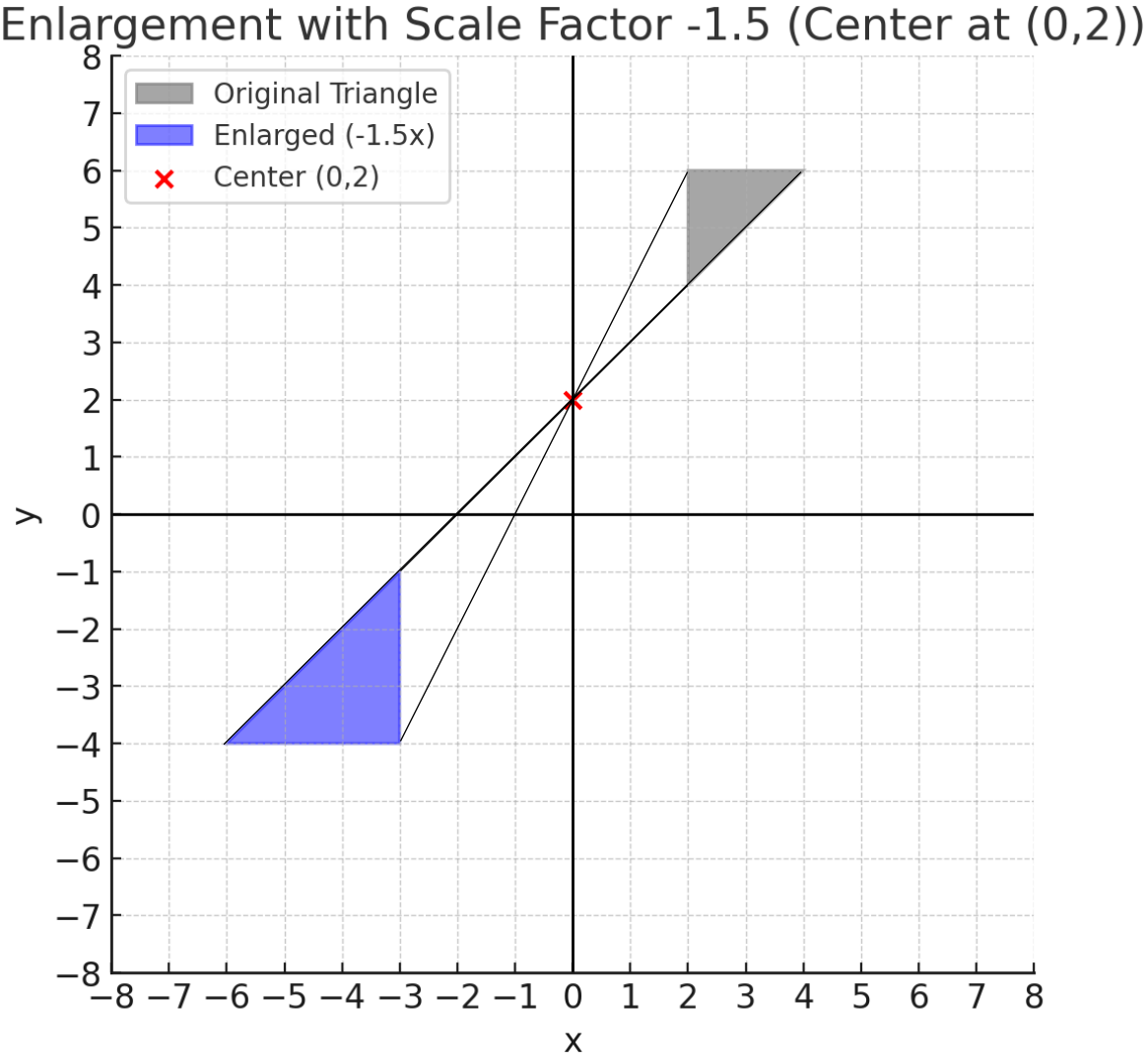
$$\begin{pmatrix} 3 \\ -3 \end{pmatrix} * -2 = \begin{pmatrix} -6 \\ 6 \end{pmatrix}$$

Q4-



- Centre (-1,0)
- Scale Factor -2

Q5-

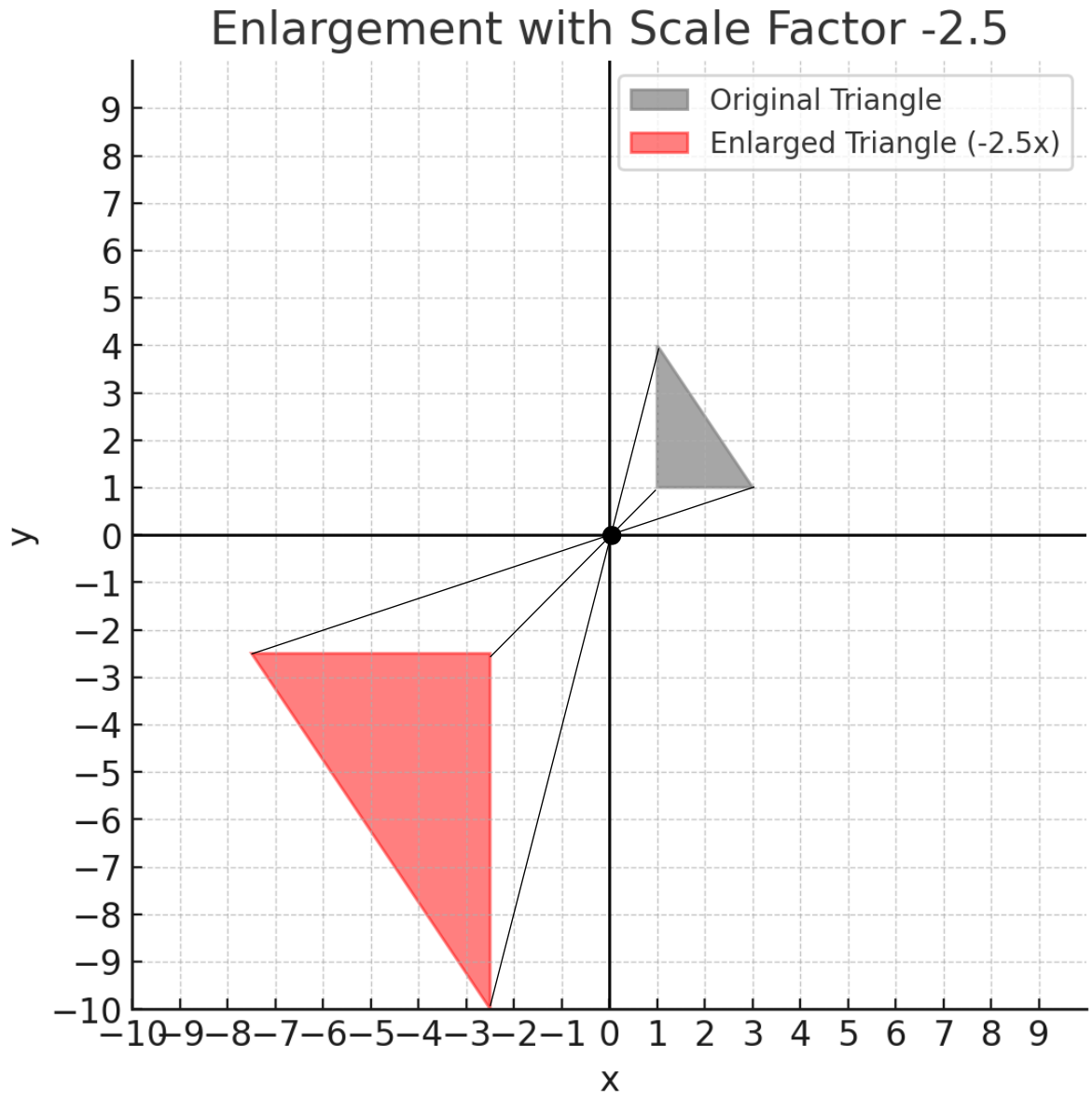


$$\begin{pmatrix} 2 \\ 2 \end{pmatrix} \times -1.5 = \begin{pmatrix} -3 \\ -3 \end{pmatrix}$$

$$\begin{pmatrix} 2 \\ 4 \end{pmatrix} \times -1.5 = \begin{pmatrix} -3 \\ -6 \end{pmatrix}$$

$$\begin{pmatrix} 4 \\ 4 \end{pmatrix} \times -1.5 = \begin{pmatrix} -6 \\ -6 \end{pmatrix}$$

Q6-

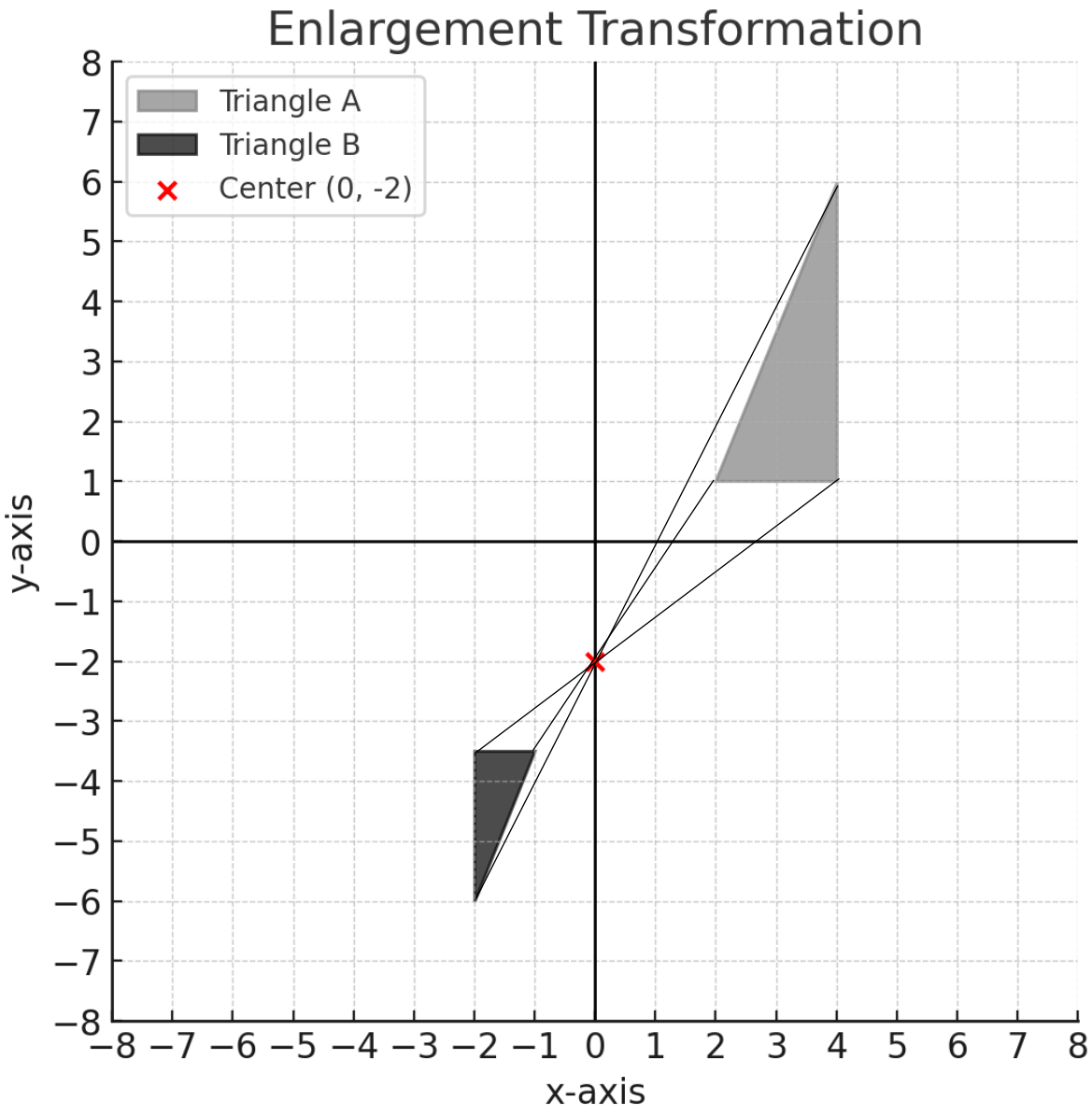

Enlargement with Scale Factor -2.5
Original Triangle
Enlarged Triangle (-2.5x)
y
x
9
8
7
6
5
4
3
2
1
0
−1
−2
−3
−4
−5
−6
−7
−8
−9
−10
−10 −9 −8 −7 −6 −5 −4 −3 −2 −1 0 1 2 3 4 5 6 7 8 9

$$\begin{pmatrix} 1 \\ 1 \end{pmatrix} \times -2.5 = \begin{pmatrix} -2.5 \\ -2.5 \end{pmatrix}$$

$$\begin{pmatrix} 1 \\ 4 \end{pmatrix} \times -2.5 = \begin{pmatrix} -2.5 \\ -10 \end{pmatrix}$$

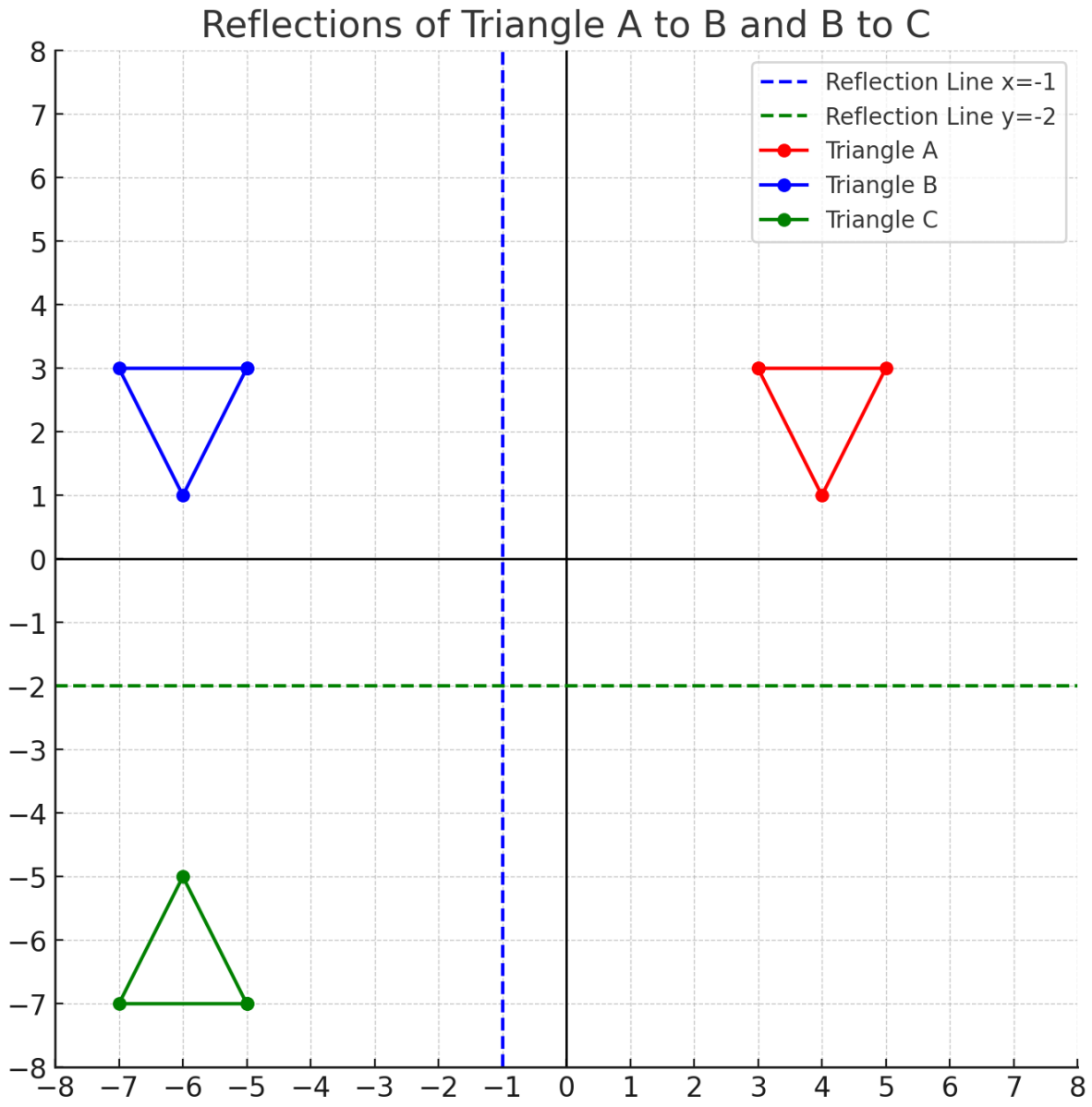
$$\begin{pmatrix} 3 \\ 1 \end{pmatrix} \times -2.5 = \begin{pmatrix} -7.5 \\ -2.5 \end{pmatrix}$$

Q7-



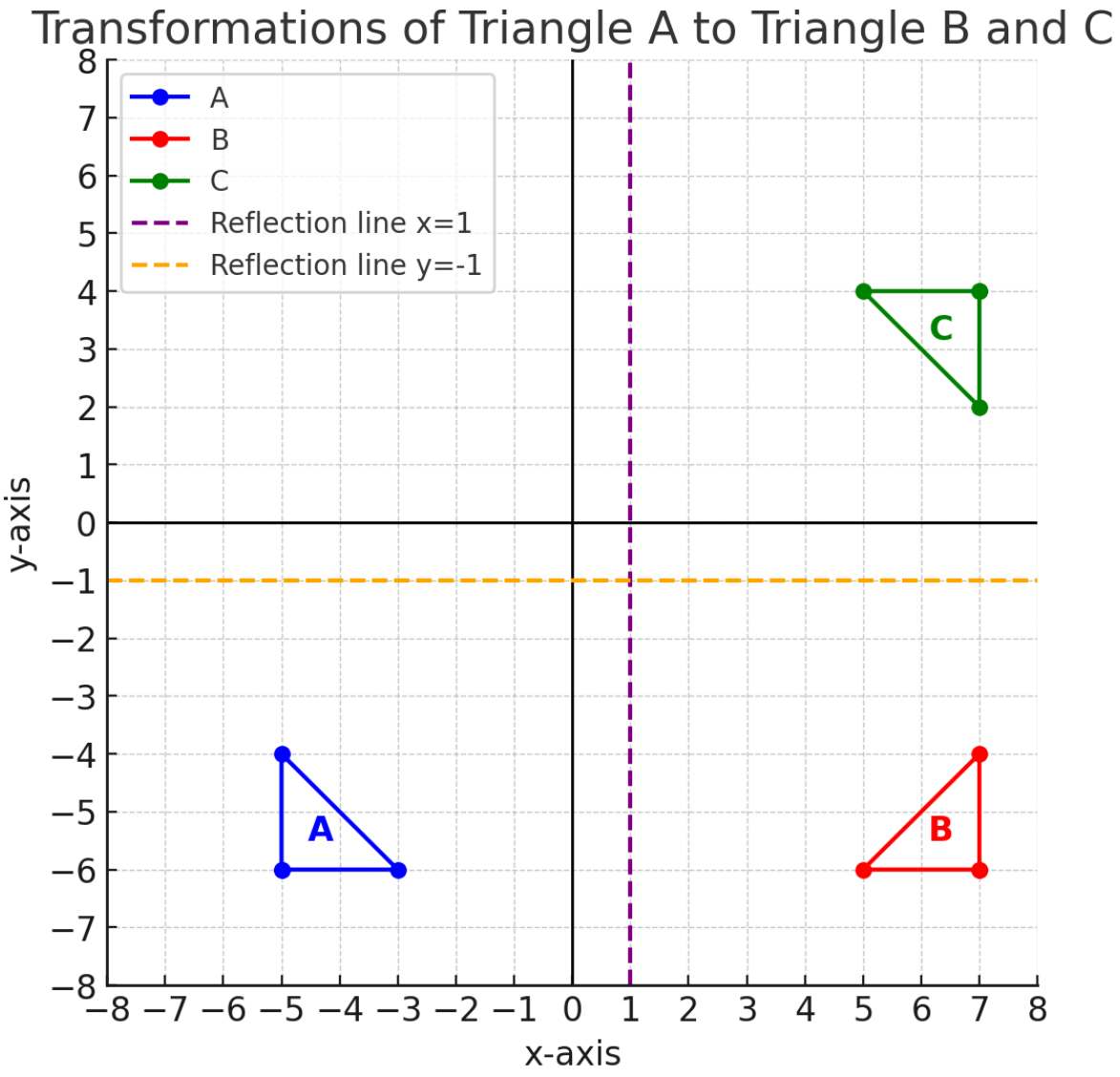
- Enlargement, Scale Factor -0.5
- Center (0, -2)

Q8-



- The single transformation that maps Triangle A to Triangle C is a rotation of 180° about the center (-1, -2)

Q9-



- Transformation from A to C is a 180° rotation about (1, -1)