

#1

Write the coordinates of the vertices after a dilation with a scale factor of $\frac{1}{2}$, centered at the origin.



$$Q(-2, 6) \rightarrow Q'(\quad, \quad)$$

$$R(10, -6) \rightarrow R'(\quad, \quad)$$

$$S(-6, -4) \rightarrow S'(\quad, \quad)$$

Show your work

#2

Write the coordinates of the vertices after a dilation with a scale factor of $\frac{1}{3}$, centered at the origin.



$$G(0, 3) \rightarrow G'(\quad, \quad)$$

$$H(6, -9) \rightarrow H'(\quad, \quad)$$

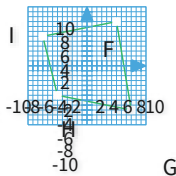
$$I(0, -6) \rightarrow I'(\quad, \quad)$$

$$J(-3, 6) \rightarrow J'(\quad, \quad)$$

Show your work

#3

Write the coordinates of the vertices after a dilation with a scale factor of $\frac{1}{3}$, centered at the origin.



$F'(2, 3)$

$F'(2, 3)$

$F'(2, 3)$

$G'(3, -3)$

$G'(3, -3)$

$G'(2, -3)$

$H'(-2, -1)$

$H'(-2, -2)$

$H'(-2, -2)$

$I'(-3, 2)$

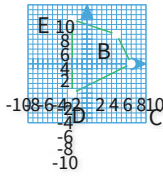
$I'(-3, 2)$

$I'(-3, 3)$

Show your work

#4

Write the coordinates of the vertices after a dilation with a scale factor of $\frac{1}{3}$, centered at the origin.



$B'(2, 2)$

$B'(2, 2)$

$B'(2, 2)$

$C'(2, 0)$

$C'(3, 0)$

$C'(3, 0)$

$D'(-1, -2)$

$D'(-1, -2)$

$D'(-1, -1)$

$E'(-1, 4)$

$E'(-1, 3)$

$E'(-2, 3)$

Show your work

#5

Write the coordinates of the vertices after a dilation with a scale factor of 5, centered at the origin.

$A(0, 1) \rightarrow A'(\text{ }, \text{ })$

$B(2, 0) \rightarrow B'(\text{ }, \text{ })$

$C(-1, -1) \rightarrow C'(\text{ }, \text{ })$

$D(-1, 2) \rightarrow D'(\text{ }, \text{ })$

Show your work

#6

Write the coordinates of the vertices after a dilation with a scale factor of $\frac{1}{3}$, centered at the origin.

$Q(6, 9) \rightarrow Q'(\text{ }, \text{ })$

$R(0, -6) \rightarrow R'(\text{ }, \text{ })$

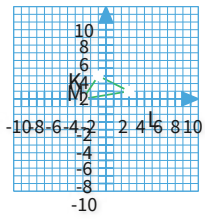
$S(-6, -9) \rightarrow S'(\text{ }, \text{ })$

$T(-6, 9) \rightarrow T'(\text{ }, \text{ })$

Show your work

#7

Write the coordinates of the vertices after a dilation with a scale factor of 3, centered at the origin.

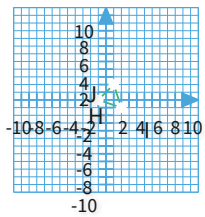


- | | | |
|-----------------------------------|-----------------------------------|-----------------------------------|
| <input type="radio"/> $K'(-3, 9)$ | <input type="radio"/> $K'(-3, 9)$ | <input type="radio"/> $K'(-3, 9)$ |
| <input type="radio"/> $L'(9, 3)$ | <input type="radio"/> $L'(6, 3)$ | <input type="radio"/> $L'(9, 2)$ |
| <input type="radio"/> $M'(-9, 0)$ | <input type="radio"/> $M'(-9, 1)$ | <input type="radio"/> $M'(-9, 0)$ |

Show your work

#8

Write the coordinates of the vertices after a dilation with a scale factor of 4, centered at the origin.

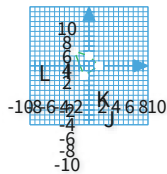


- | | | |
|-----------------------------------|-----------------------------------|-----------------------------------|
| <input type="radio"/> $H'(4, 8)$ | <input type="radio"/> $H'(4, 8)$ | <input type="radio"/> $H'(4, 8)$ |
| <input type="radio"/> $I'(8, -3)$ | <input type="radio"/> $I'(9, -4)$ | <input type="radio"/> $I'(8, -4)$ |
| <input type="radio"/> $J'(-4, 0)$ | <input type="radio"/> $J'(-4, 1)$ | <input type="radio"/> $J'(-4, 0)$ |

Show your work

#9

Write the coordinates of the vertices after a dilation with a scale factor of 3, centered at the origin.



- | | | |
|------------------------------------|------------------------------------|------------------------------------|
| <input type="radio"/> $I'(0, 6)$ | <input type="radio"/> $I'(0, 6)$ | <input type="radio"/> $I'(0, 6)$ |
| <input type="radio"/> $J'(5, 0)$ | <input type="radio"/> $J'(6, 0)$ | <input type="radio"/> $J'(6, 0)$ |
| <input type="radio"/> $K'(-3, -6)$ | <input type="radio"/> $K'(-3, -6)$ | <input type="radio"/> $K'(-3, -7)$ |
| <input type="radio"/> $L'(-9, 8)$ | <input type="radio"/> $L'(-9, 9)$ | <input type="radio"/> $L'(-4, 9)$ |

Show your work



#10

Write the coordinates of the vertices after a dilation with a scale factor of $\frac{1}{4}$, centered at the origin.



$$L(-4, 8) \rightarrow L'(\boxed{}, \boxed{})$$

$$M(4, 0) \rightarrow M'(\boxed{}, \boxed{})$$

$$N(-8, -4) \rightarrow N'(\boxed{}, \boxed{})$$

Show your work

#11

Write the coordinates of the vertices after a dilation with a scale factor of 2, centered at the origin.



$$U(-1, 3) \rightarrow U'(\boxed{}, \boxed{})$$

$$V(4, -2) \rightarrow V'(\boxed{}, \boxed{})$$

$$W(-2, -5) \rightarrow W'(\boxed{}, \boxed{})$$

Show your work

#12

Write the coordinates of the vertices after a dilation with a scale factor of 3, centered at the origin.



$$U(2, 1) \rightarrow U'(\boxed{}, \boxed{})$$

$$V(3, -2) \rightarrow V'(\boxed{}, \boxed{})$$

$$W(0, -3) \rightarrow W'(\boxed{}, \boxed{})$$

$$X(-1, 1) \rightarrow X'(\boxed{}, \boxed{})$$

Show your work

Question	Answer
#1	-1, 5, -3, 3, -3, -2
#2	0, 2, 0, -1, 1, -3, -2, 2
#3	choice 2
#4	choice 2
#5	0, 10, -5, -5, 5, 0, -5, 10
#6	2, 0, -2, -2, 3, -2, -3, 3
#7	choice 1
#8	choice 3
#9	choice 2
#10	-1, 1, -2, 2, 0, -1
#11	-2, 8, -4, 6, -4, -10
#12	6, 9, 0, -3, 3, -6, -9, 3