Space Assessment

AC9M7SP03 (Answers)

Name:

Score:

Teacher:

Q.1.   The point P:(2, 1) is reflected in the x axis. Which one of the following represents the reflection?

a)   (-2, 1)   b)   (-2, -1)   c)   **(2, -1)**   d)   (1, 2)   e)   (-1, 2)

Q.2.   The point P:(3, 2) is reflected in the y axis. Which one of the following represents the reflection?

a)   (2, 3)   b)   **(-3, 2)**   c)   (3, -2)   d)   (-2, 3)   e)   (-2, -3)

Q.3.   The point P:(1, 1) is translated +2 units parallel to the x axis. The coordinates of the new point would be:

a)   (2, 2)   b)   (1, 2)   c)   (1, 3)   d)   **(3, 1)**   e)   (3, 3)

Q.4.   The point P:(1, 1) is translated -3 units parallel to the y axis. The coordinates of the new point would be:

a)   (-1, -2)   b)   (1, 4)   c)   (-2, 1)   d)   (4, 1)   e)   **(1, -2)**

Q.5.   The point P:(3, 1) is rotated anti-clockwise by 90º. The coordinates of the new point would be:

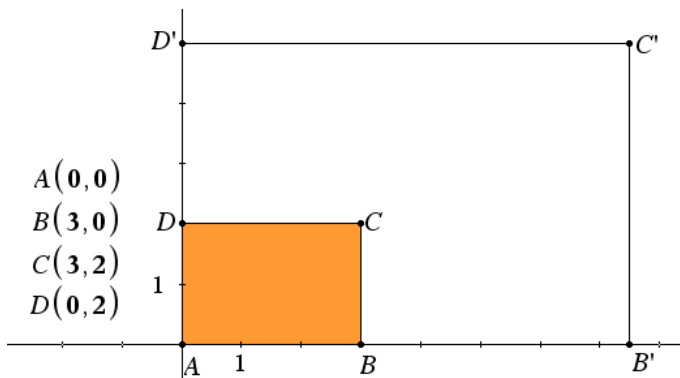a)   **(-1, 3)**   b)   (1, -3)   c)   (3, -1)   d)   (-3, 1)   e)   (-3, -1)

Q.6.   The point P:(4, 5) is rotated by 180º. The coordinates of the new point would be:

a)   **(-4, -5)**   b)   (-4, 5)   c)   (4, -5)   d)   (-5, -4)   e)   (5, 4)

Q.7.   The rectangle shown is dilated by a factor of 2.5 from the origin.

Write down the coordinates of each point:

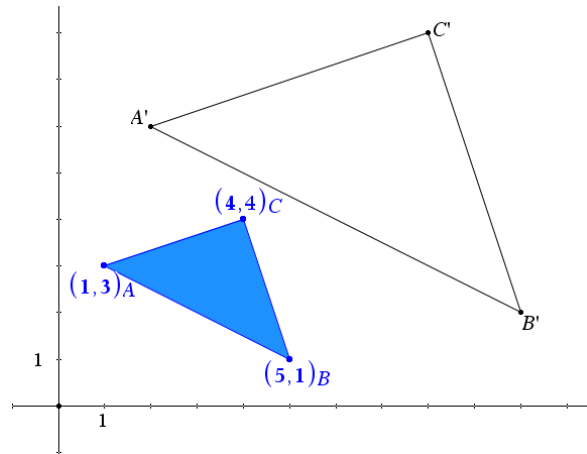A', B', C' and D'

$A(0,0)$
$B(3,0)$
$C(3,2)$
$D(0,2)$

Answer: A' = (0, 0);   B'= (7.5, 0);   C'= (7.5, 5);   D'= (0, 5)

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Q.8. The triangle shown is dilated by a factor of 2 from the origin.

Write down the coordinates of each point:

A', B', and C'

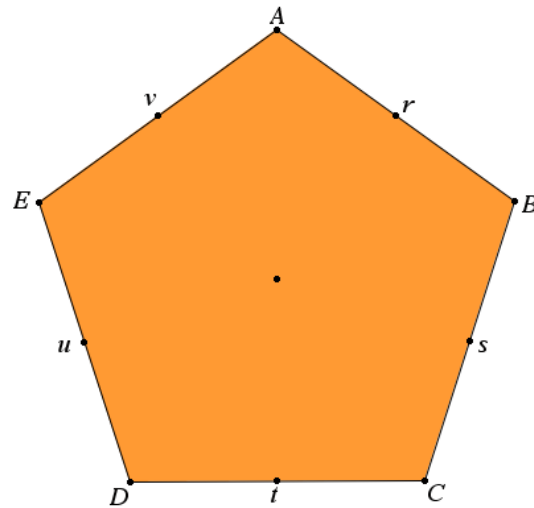**Answer**: A' = (2, 6); B' = (10, 2); C'= (8, 8)

Q.9. ABCDE is a regular pentagon, r,s,t,u and v are midpoints on each side.

Identify each of the lines of symmetry for this regular pentagon.

Example:

$\overline{Et}$ represents the line from *E* to *t*.

Answer: $\overline{At}$, $\overline{Bu}$, $\overline{Cv}$, $\overline{Dr}$, $\overline{Es}$.

Q.10. How many axes of symmetry exists for a regular dodecagon (12 sided) figure?

a) 3   b) 6   c) 12   d) 18   e) 24

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