Name: _____

Translations on the Coordinate Plane

Find the coordinates of the image of each triangle.

Learn: A translation slides a shape. Add the move to every point. Example: (2, 1) moved 3 right and 2 down → (5, −1).

Example: Triangle A(−4, −4), B(4, −5), C(−5, 2) is translated 2 right and 5 up. Give the coordinates of the image.

A′B′C′: A′(−2, 1), B′(6, 0), C′(−3, 7)

1. Triangle A(−3, 3), B(−4, 2), C(3, 5) is translated 3 left and 4 up. Give the coordinates of the image.

   A′B′C′: _____

2. Triangle A(−4, 5), B(5, 6), C(2, −6) is translated 4 left and 2 down. Give the coordinates of the image.

   A′B′C′: _____

3. Triangle A(3, 5), B(−4, −3), C(−5, 5) is translated 5 right and 3 up. Give the coordinates of the image.

   A′B′C′: _____

4. Triangle A(−5, −3), B(4, −6), C(0, 5) is translated 3 left and 5 up. Give the coordinates of the image.

   A′B′C′: _____

5. Triangle A(−3, 3), B(0, −1), C(−3, −2) is translated 4 left and 4 up. Give the coordinates of the image.

   A′B′C′: _____

6. Triangle A(−4, 1), B(−5, −6), C(−2, −2) is translated 3 right and 3 down. Give the coordinates of the image.

   A′B′C′: _____

7. Triangle A(2, 0), B(−3, −1), C(−4, −6) is translated 4 left and 3 down. Give the coordinates of the image.

   A′B′C′: _____

Name: **ANSWER KEY**

Translations on the Coordinate Plane

Find the coordinates of the image of each triangle.

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Example: Triangle A(−4, −4), B(4, −5), C(−5, 2) is translated 2 right and 5 up. Give the coordinates of the image.

A′B′C′: A′(−2, 1), B′(6, 0), C′(−3, 7)

1. Triangle A(−3, 3), B(−4, 2), C(3, 5) is translated 3 left and 4 up. Give the coordinates of the image.

   A′B′C′: A′(−6, 7), B′(−7, 6), C′(0, 9)

2. Triangle A(−4, 5), B(5, 6), C(2, −6) is translated 4 left and 2 down. Give the coordinates of the image.

   A′B′C′: A′(−8, 3), B′(1, 4), C′(−2, −8)

3. Triangle A(3, 5), B(−4, −3), C(−5, 5) is translated 5 right and 3 up. Give the coordinates of the image.

   A′B′C′: A′(8, 8), B′(1, 0), C′(0, 8)

4. Triangle A(−5, −3), B(4, −6), C(0, 5) is translated 3 left and 5 up. Give the coordinates of the image.

   A′B′C′: A′(−8, 2), B′(1, −1), C′(−3, 10)

5. Triangle A(−3, 3), B(0, −1), C(−3, −2) is translated 4 left and 4 up. Give the coordinates of the image.

   A′B′C′: A′(−7, 7), B′(−4, 3), C′(−7, 2)

6. Triangle A(−4, 1), B(−5, −6), C(−2, −2) is translated 3 right and 3 down. Give the coordinates of the image.

   A′B′C′: A′(−1, −2), B′(−2, −9), C′(1, −5)

7. Triangle A(2, 0), B(−3, −1), C(−4, −6) is translated 4 left and 3 down. Give the coordinates of the image.

   A′B′C′: A′(−2, −3), B′(−7, −4), C′(−8, −9)