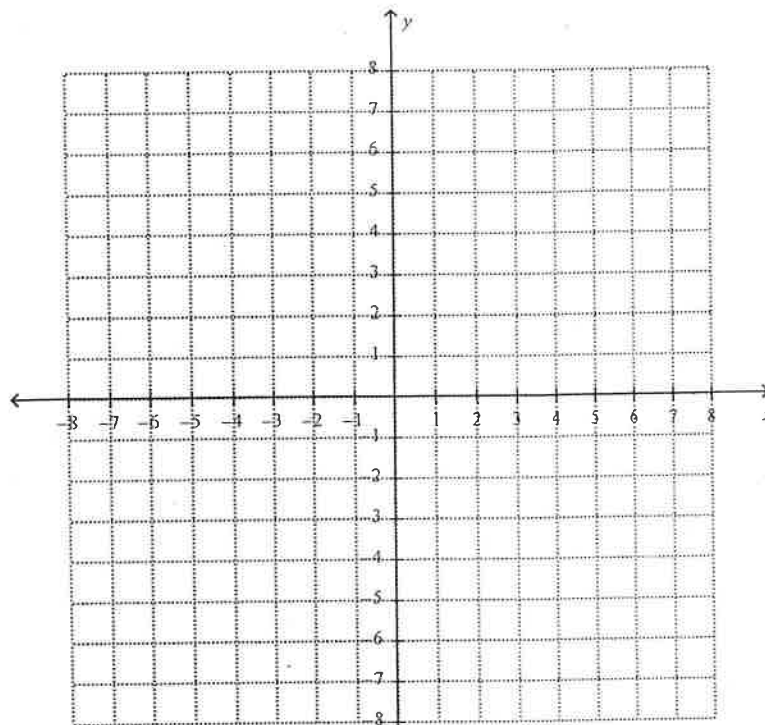


### Digits- Topic 9.1-9.3 Quiz Review

1. a) The table below shows the coordinates of parallelogram  $ABCD$ . Fill in the table for the coordinates of rectangle  $A'B'C'D'$  following a translation of 1 unit to the left and 2 units down.

| Parallelogram $ABCD$ |           | Parallelogram $A'B'C'D'$ |  |
|----------------------|-----------|--------------------------|--|
| $A$                  | $(-3, 2)$ | $A'$                     |  |
| $B$                  | $(4, 2)$  | $B'$                     |  |
| $C$                  | $(6, 4)$  | $C'$                     |  |
| $D$                  | $(-1, 4)$ | $D'$                     |  |



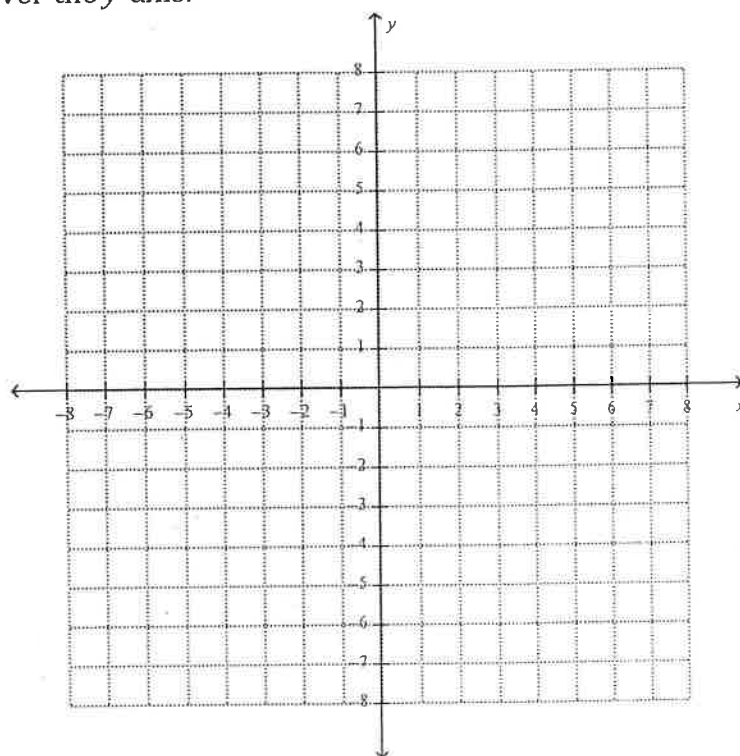
- b) Draw and label parallelogram  $ABCD$  and image  $A'B'C'D'$  after the translation on the graph to the right.

- c) State the general rule:

$$(x, y) \rightarrow ( \quad , \quad )$$

2. a) The table below shows the coordinates of triangle  $ABC$ . Fill in the table below for the coordinates of  $A'$ ,  $B'$ , and  $C'$  after a reflection over the  $y$ -axis.

| Triangle $ABC$ |            | Triangle $A'B'C'$ |  |
|----------------|------------|-------------------|--|
| $A$            | $(-2, 4)$  | $A'$              |  |
| $B$            | $(2, 0)$   | $B'$              |  |
| $C$            | $(-1, -1)$ | $C'$              |  |



- b) Draw triangle  $ABC$  and image  $A'B'C'$  after the reflection.

- c) State the general rule:

$$(x, y) \rightarrow ( \quad , \quad )$$

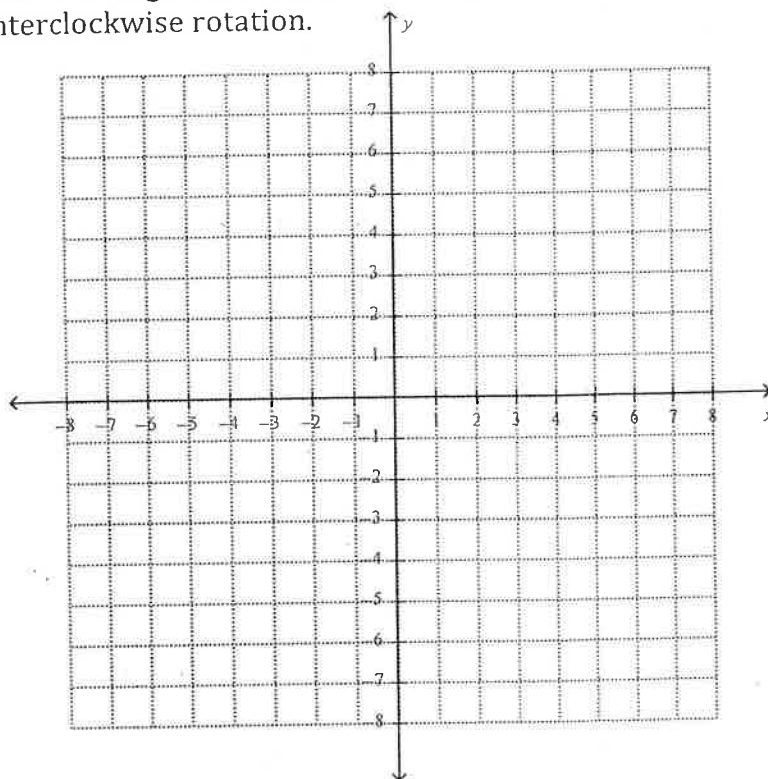
3. a) The table below shows the coordinates of triangle  $ABC$ . Fill in the table below for the coordinates of  $R'$ ,  $S'$ , and  $T'$  after a  $90^\circ$  counterclockwise rotation.

| Triangle $RST$ |           | Triangle $R'S'T'$ |  |
|----------------|-----------|-------------------|--|
| $R$            | $(-4, 0)$ | $R'$              |  |
| $S$            | $(-2, 3)$ | $S'$              |  |
| $T$            | $(0, 0)$  | $T'$              |  |

- b) Draw triangle  $RST$  and image  $R'S'T'$  after the reflection.

- c) State the general rule:

$$(x, y) \rightarrow ( \quad , \quad )$$



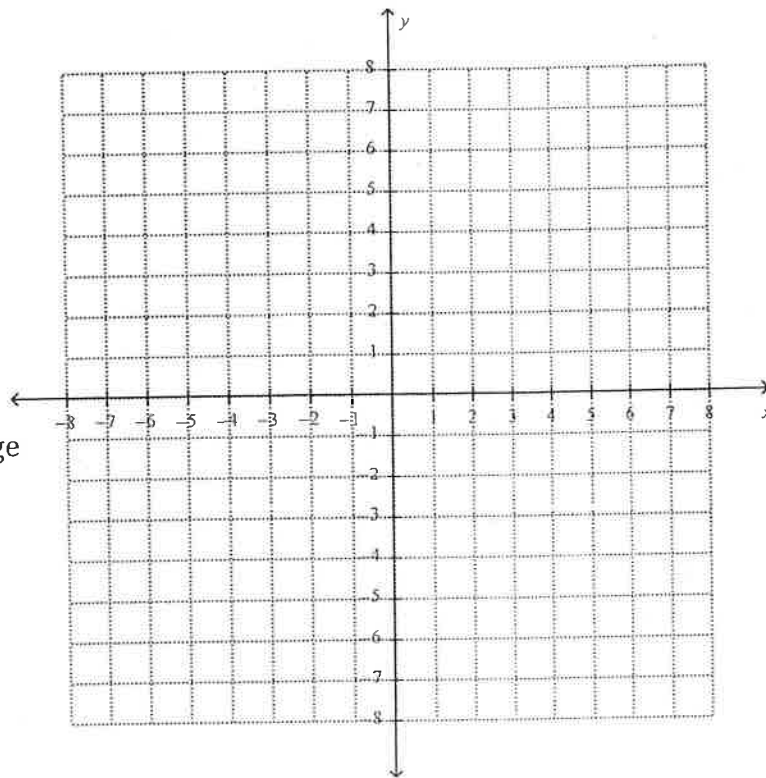
4. a) The table below shows the coordinates of parallelogram  $ABCD$ . Fill in the table for the coordinates of rectangle  $A'B'C'D'$  following a translation of 1 unit to the right and 3 units up.

| Parallelogram $ABCD$ |           | Parallelogram $A'B'C'D'$ |  |
|----------------------|-----------|--------------------------|--|
| $A$                  | $(-3, 0)$ | $A'$                     |  |
| $B$                  | $(-2, 3)$ | $B'$                     |  |
| $C$                  | $(3, 3)$  | $C'$                     |  |
| $D$                  | $(2, 0)$  | $D'$                     |  |

- b) Draw and label trapezoid  $ABCD$  and image  $A'B'C'D'$  after the translation on the graph to the right.

- c) State the general rule:

$$(x, y) \rightarrow ( \quad , \quad )$$



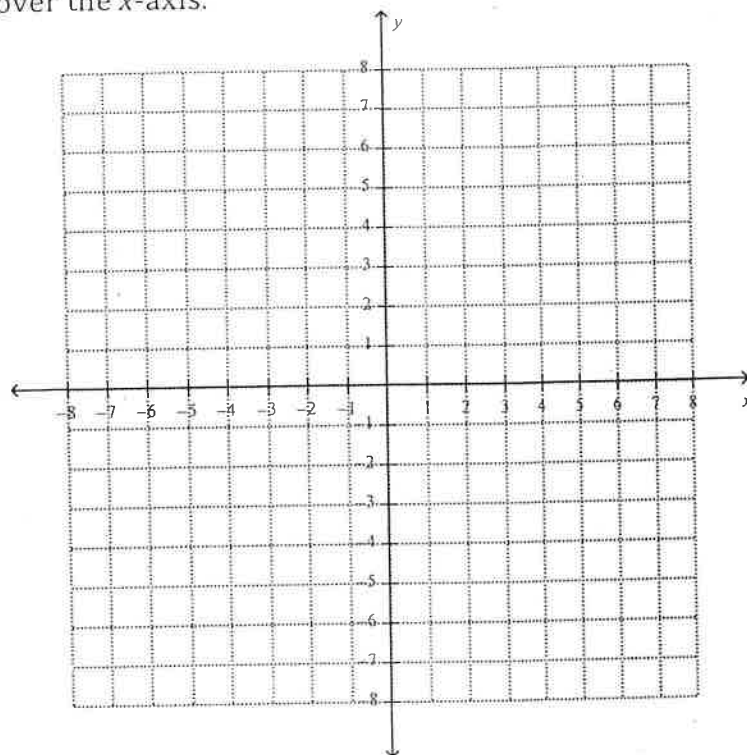
5. a) The table below shows the coordinates of pentagon  $ABCDE$ . Fill in the table below for the coordinates of  $A'$ ,  $B'$ ,  $C'$ ,  $D'$ ,  $E'$  after a reflection over the  $x$ -axis.

| Pentagon $ABCDE$ |            | Pentagon $A'B'C'D'E'$ |  |
|------------------|------------|-----------------------|--|
| $A$              | $(-3, -5)$ | $A'$                  |  |
| $B$              | $(3, -5)$  | $B'$                  |  |
| $C$              | $(3, 1)$   | $C'$                  |  |
| $D$              | $(0, 4)$   | $D'$                  |  |
| $E$              | $(-3, 1)$  | $E'$                  |  |

- b) Draw  $ABCDE$  and image  $A'B'C'D'E'$  after the reflection.

- c) State the general rule:

$$(x, y) \rightarrow ( \quad , \quad )$$



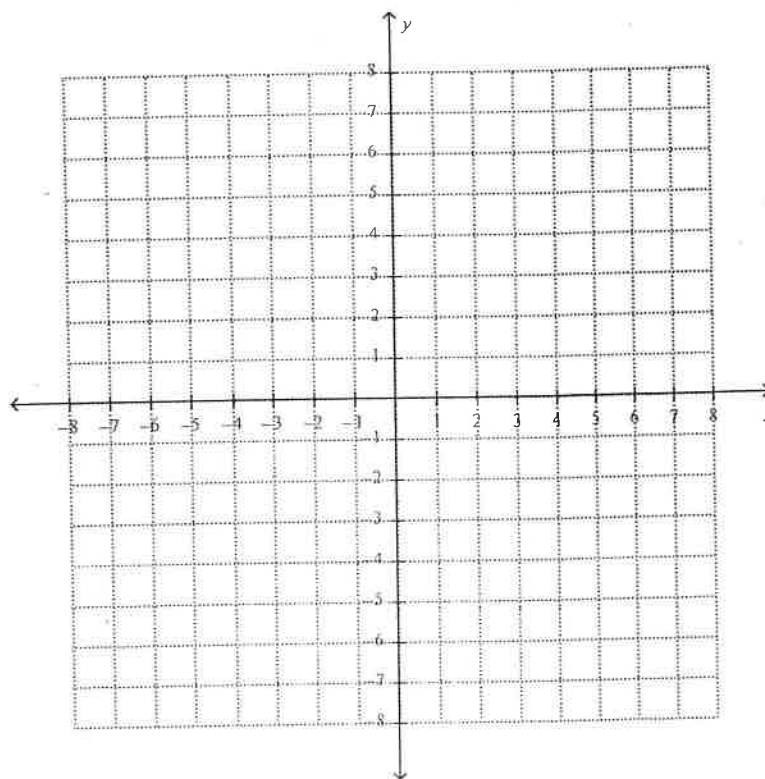
6. a) The table below shows the coordinates of triangle  $ABC$ . Fill in the table below for the coordinates of  $A'$ ,  $B'$ , and  $C'$  after a  $180^\circ$  counterclockwise rotation.

| Triangle $ABC$ |          | Triangle $A'B'C'$ |  |
|----------------|----------|-------------------|--|
| $A$            | $(0, 0)$ | $A'$              |  |
| $B$            | $(2, 4)$ | $B'$              |  |
| $C$            | $(3, 0)$ | $C'$              |  |

- b) Draw triangle  $ABC$  and image  $A'B'C'$  after the reflection.

- c) State the general rule:

$$(x, y) \rightarrow ( \quad , \quad )$$



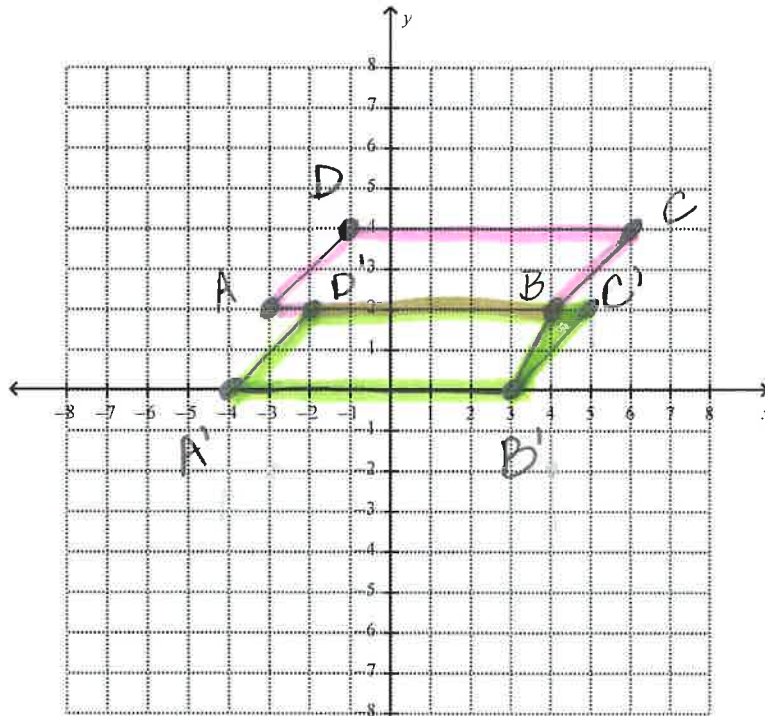
Name Key Block \_\_\_\_\_

### Digits- Topic 9.1-9.3 Quiz Review

1. a) The table below shows the coordinates of parallelogram ABCD. Fill in the table for the coordinates of rectangle A'B'C'D' following a translation of 1 unit to the left and 2 units down.

Parallelogram

| Rectangle ABCD |         | Rectangle A'B'C'D' |         |
|----------------|---------|--------------------|---------|
| A              | (-3, 2) | A'                 | (-4, 0) |
| B              | (4, 2)  | B'                 | (3, 0)  |
| C              | (6, 4)  | C'                 | (5, 2)  |
| D              | (-1, 4) | D'                 | (-2, 2) |



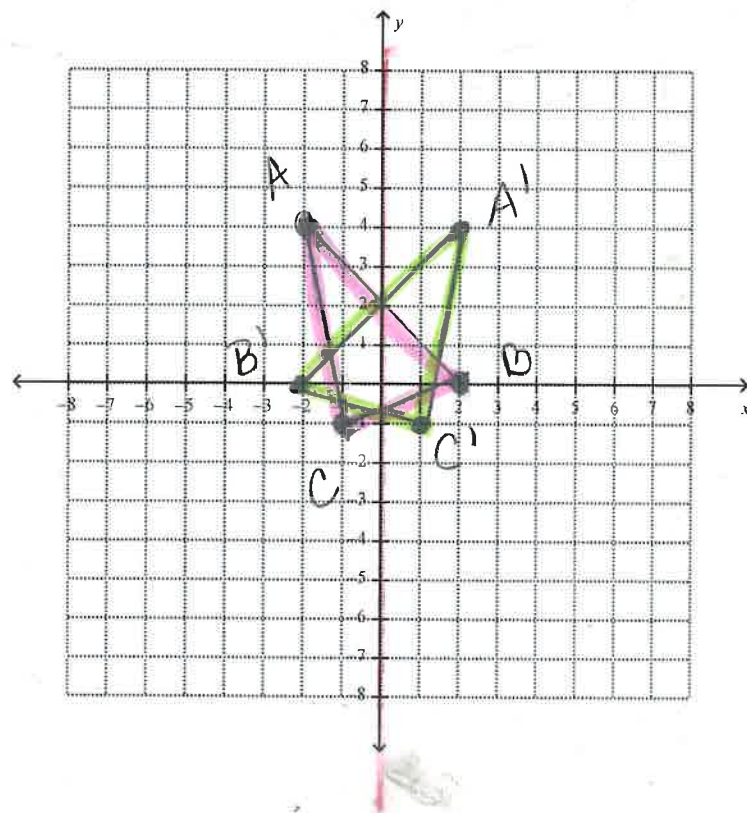
- b) Draw and label parallelogram ABCD and image A'B'C'D' after the translation on the graph to the right.

- c) State the general rule:

$$(x, y) \rightarrow (x-1, y-2)$$

2. a) The table below shows the coordinates of triangle ABC. Fill in the table below for the coordinates of A', B', and C' after a reflection over the y-axis.

| Triangle ABC |          | Triangle A'B'C' |         |
|--------------|----------|-----------------|---------|
| A            | (-2, 4)  | A'              | (2, 4)  |
| B            | (2, 0)   | B'              | (-2, 0) |
| C            | (-1, -1) | C'              | (1, -1) |



- b) Draw triangle ABC and image A'B'C' after the reflection.

- c) State the general rule:

$$(x, y) \rightarrow (-x, y)$$



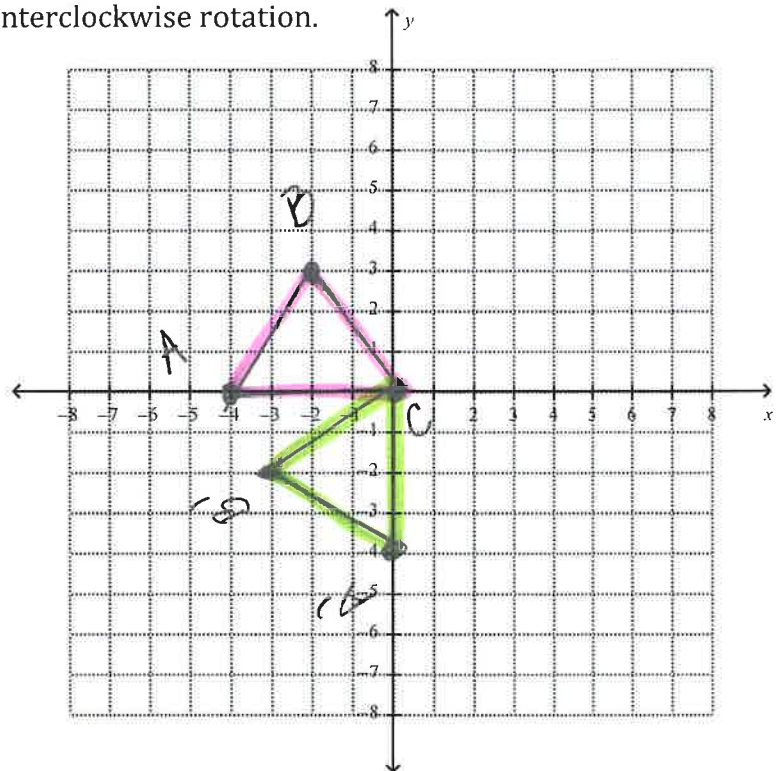
3. a) The table below shows the coordinates of triangle  $ABC$ . Fill in the table below for the coordinates of  $A'$ ,  $B'$ , and  $C'$  after a  $90^\circ$  counterclockwise rotation.

| Triangle $RST$ |           | Triangle $R'S'T'$ |           |
|----------------|-----------|-------------------|-----------|
| $A$            | $(-4, 0)$ | $A'$              | $(0, -4)$ |
| $B$            | $(-2, 3)$ | $B'$              | $(-3, 2)$ |
| $C$            | $(0, 0)$  | $C'$              | $(0, 0)$  |

b) Draw triangle  $ABC$  and image  $A'B'C'$  after the reflection.

c) State the general rule:

$$(x, y) \rightarrow (-y, x)$$



4. a) The table below shows the coordinates of trapezoid  $ABCD$ . Fill in the table for the coordinates of rectangle  $A'B'C'D'$  following a translation of 1 unit to the right and 3 units up.

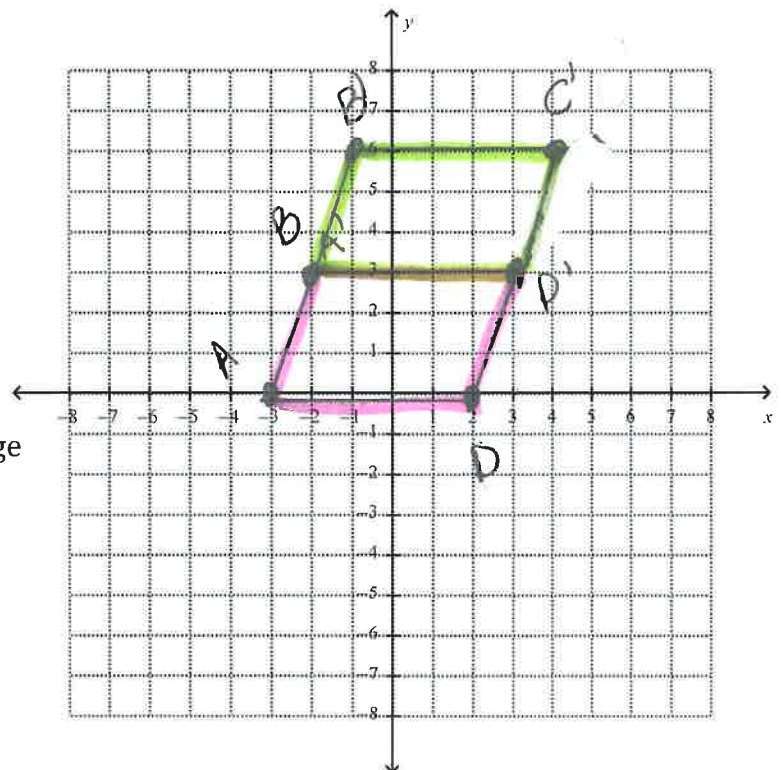
parallelogram

| Rectangle $ABCD$ |           | Rectangle $A'B'C'D'$ |           |
|------------------|-----------|----------------------|-----------|
| $A$              | $(-3, 0)$ | $A'$                 | $(-2, 3)$ |
| $B$              | $(-2, 3)$ | $B'$                 | $(-1, 6)$ |
| $C$              | $(3, 3)$  | $C'$                 | $(4, 6)$  |
| $D$              | $(2, 0)$  | $D'$                 | $(3, 3)$  |

b) Draw and label trapezoid  $ABCD$  and image  $A'B'C'D'$  after the translation on the graph to the right.

c) State the general rule:

$$(x, y) \rightarrow (x+1, y+3)$$



5. a) The table below shows the coordinates of pentagon  $ABCDE$ . Fill in the table below for the coordinates of  $A'$ ,  $B'$ ,  $C'$ ,  $D'$  after a reflection over the  $x$ -axis.

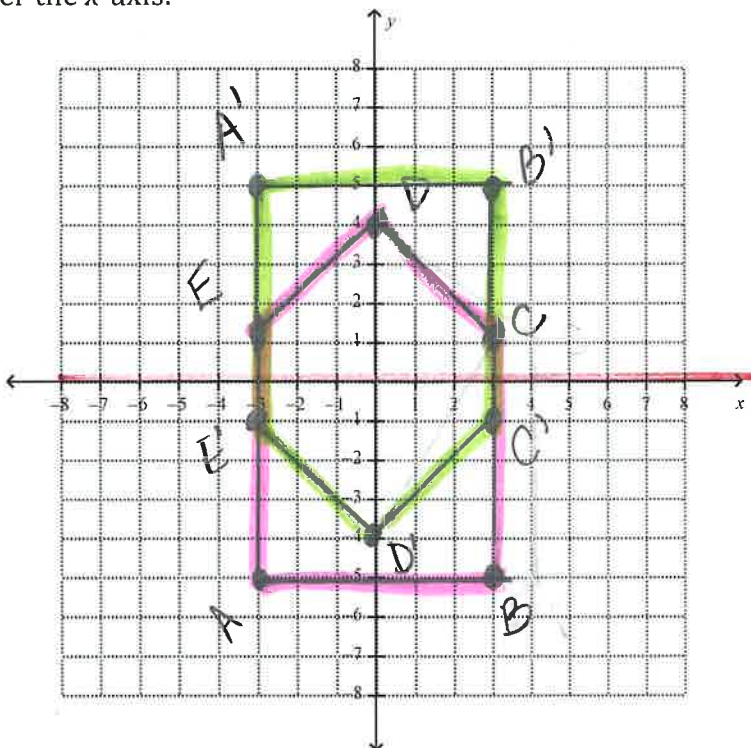
Pentagon

| Triangle $ABC$ |            | Triangle $A'B'C'$ |            |
|----------------|------------|-------------------|------------|
| A              | $(-3, -5)$ | A'                | $(-3, 5)$  |
| B              | $(3, 5)$   | B'                | $(3, 5)$   |
| C              | $(3, 1)$   | C'                | $(3, -1)$  |
| D              | $(0, 4)$   | D'                | $(0, -4)$  |
| E              | $(-3, 1)$  | E'                | $(-3, -1)$ |

b) Draw  $ABCDE$  and image  $A'B'C'D'E'$  after the reflection.

c) State the general rule:

$$(x, y) \rightarrow (x, -y)$$



6. a) The table below shows the coordinates of triangle  $ABC$ . Fill in the table below for the coordinates of  $A'$ ,  $B'$ , and  $C'$  after a  $180^\circ$  counterclockwise rotation.

| Triangle $RST$ |          | Triangle $R'S'T'$ |            |
|----------------|----------|-------------------|------------|
| A              | $(0, 0)$ | A'                | $(0, 0)$   |
| B              | $(2, 4)$ | B'                | $(-2, -4)$ |
| C              | $(3, 0)$ | C'                | $(-3, 0)$  |

b) Draw triangle  $ABC$  and image  $A'B'C'$  after the reflection.

c) State the general rule:

$$(x, y) \rightarrow (-x, -y)$$

