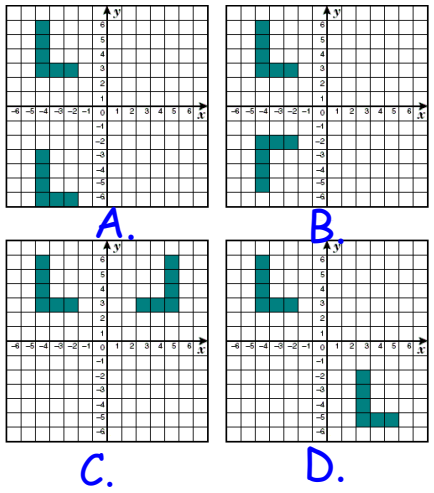
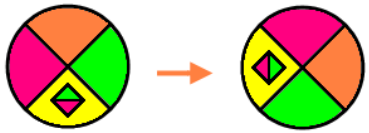
Warm-up:

1. Which graph shows a reflection across the y-axis?



2.



What type of transformation is shown in the figure above?

A dilation
B rotation
C translation
D reflection

3. Which of the following best represents $\sqrt{86}$? A number between ____ and ____.

A 9 and 10
B 8 and 9
C 10 and 11
D 11 and 12

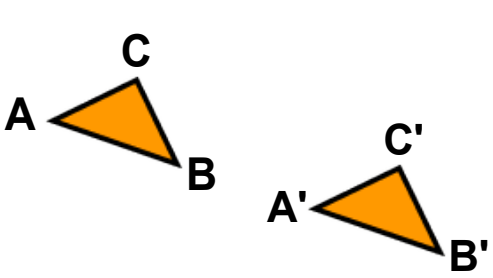
Look at back wall

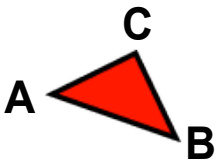
4. What value for x makes the equation true?

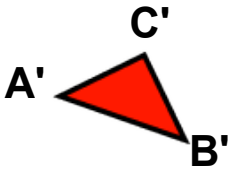
$x^2 = 100$

A 10
B 98
C 11
D 50

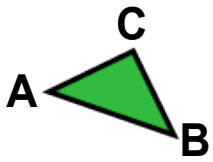
Identify the translations

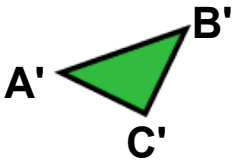


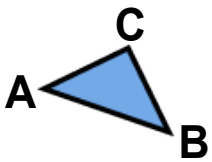


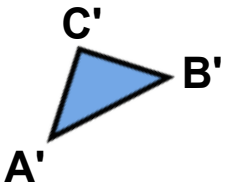


ANSWER





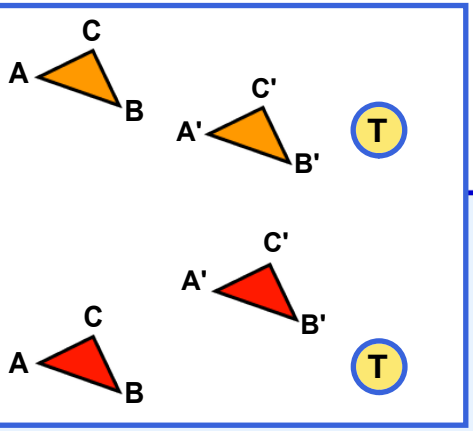




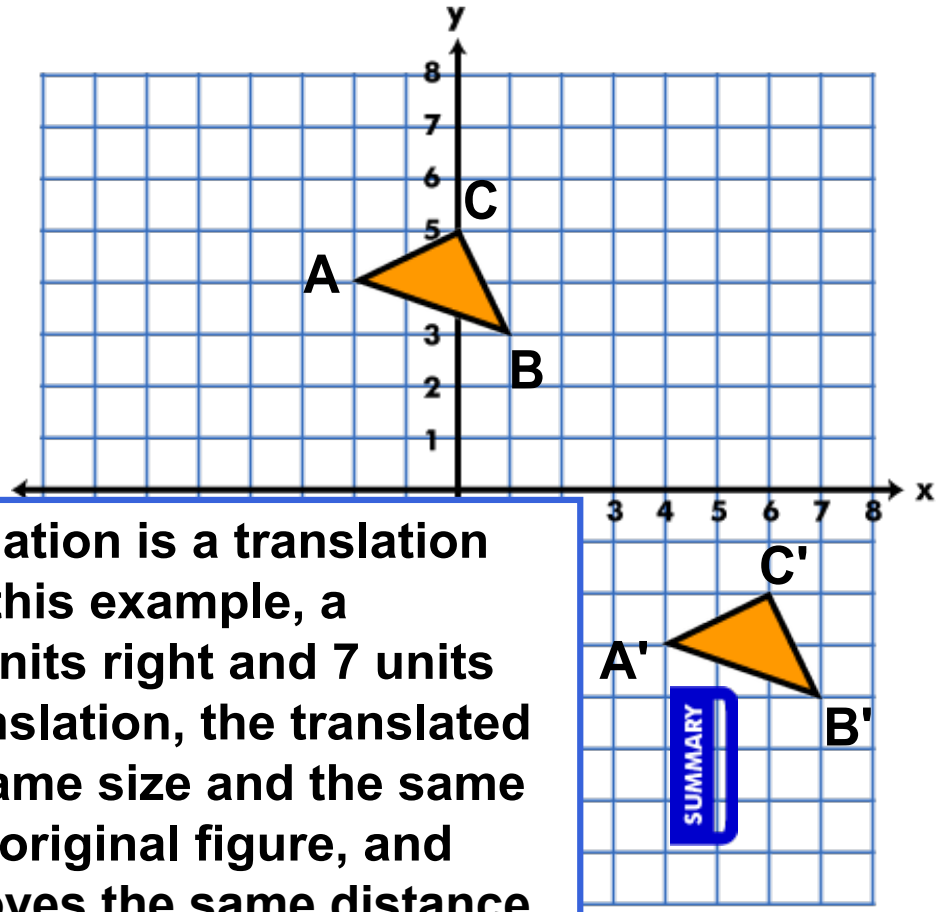
T

CLO

ANSWER



Describe this transformation



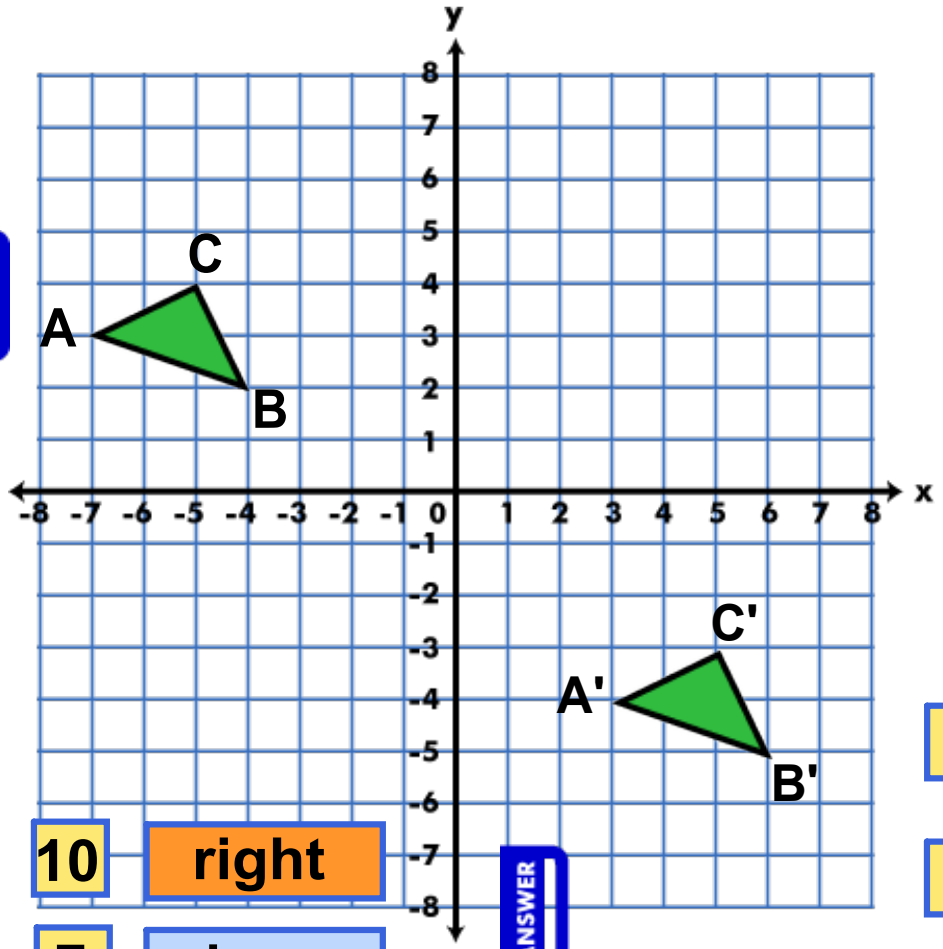
HINT

DRAG

SUMMARY

This transformation is a translation or a 'slide'. In this example, a translation 6 units right and 7 units down. In a translation, the translated image is the same size and the same way up as the original figure, and every point moves the same distance in the same direction.

Describe this translation



ABC ⟶ A'B'C'

left | up

right | down

1 | 2 | 3 | 4 | 5

6 | 7 | 8 | 9 | 10

HINT

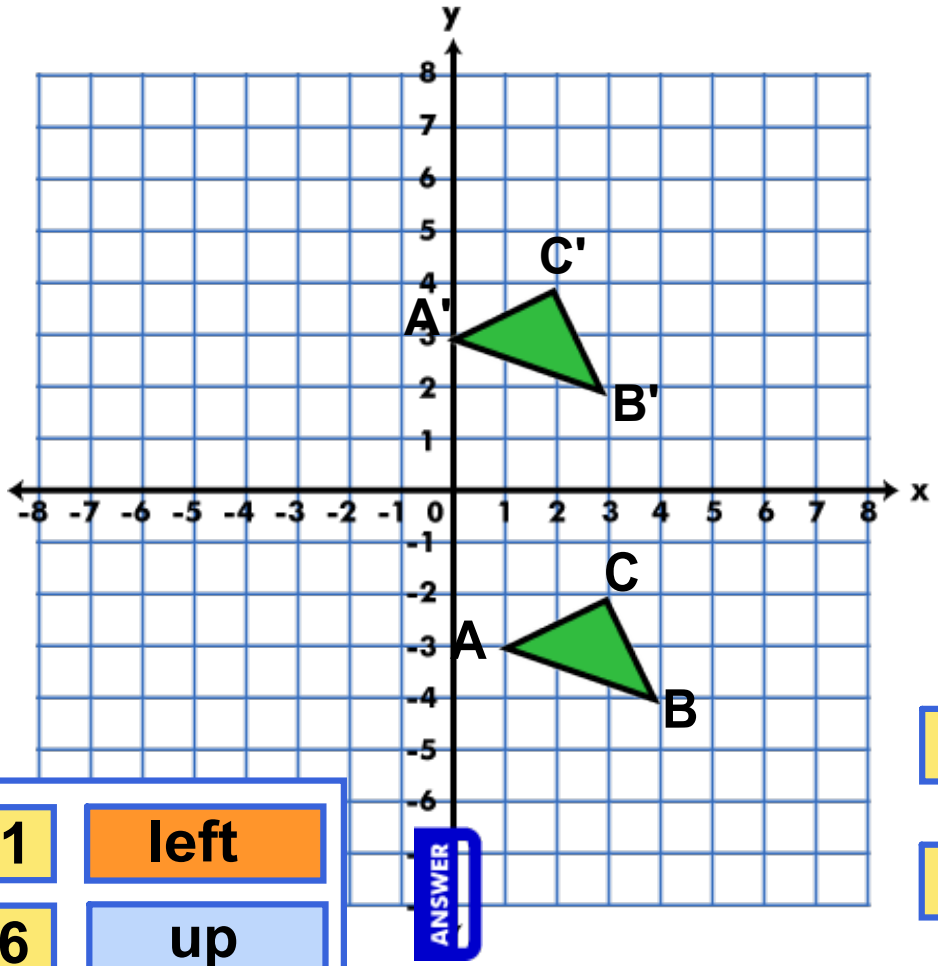
ANSWER

10 | right

7 | down

CLONE

Describe this translation



ABC ⟶ A'B'C'

left | up

right | down

1 | 2 | 3 | 4 | 5

6 | 7 | 8 | 9 | 10

ANSWER

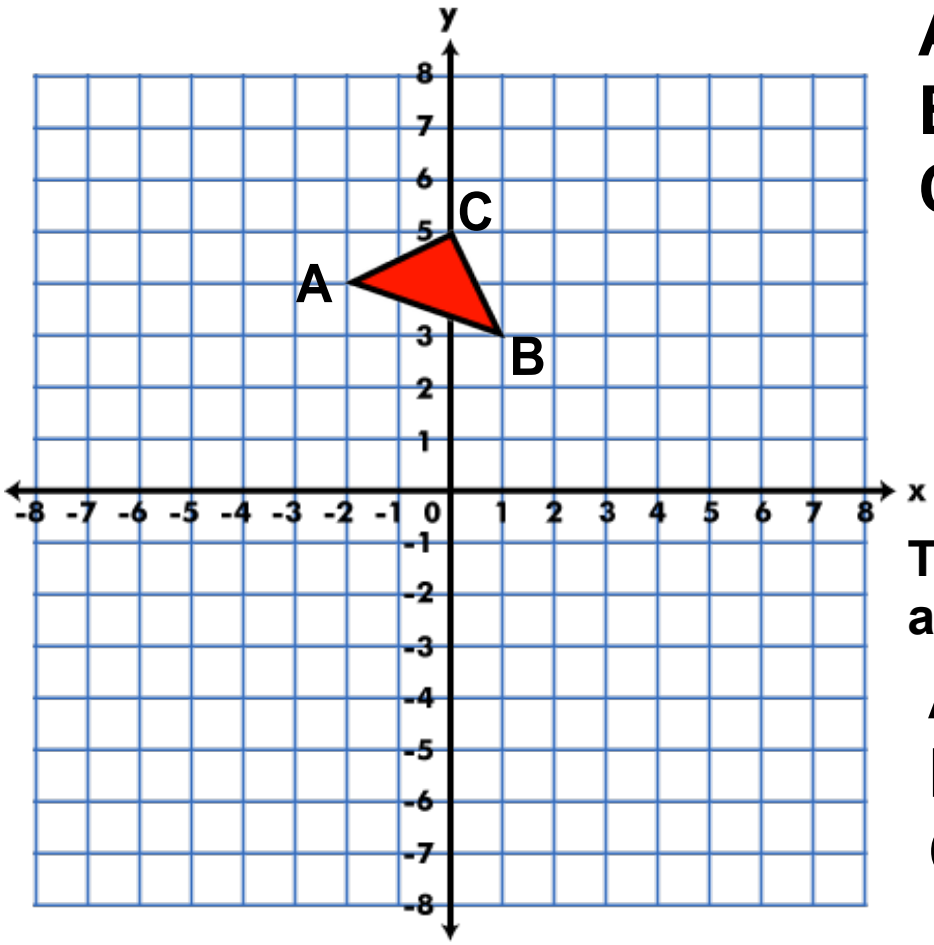
1 left

6 up

CLONE

Translate ABC 5 units down and label the image A'B'C'

CLONE



A(-2,4) A'(___,___)
B(1,3) B'(___,___)
C(0,5) C'(___,___)

A' B' C'

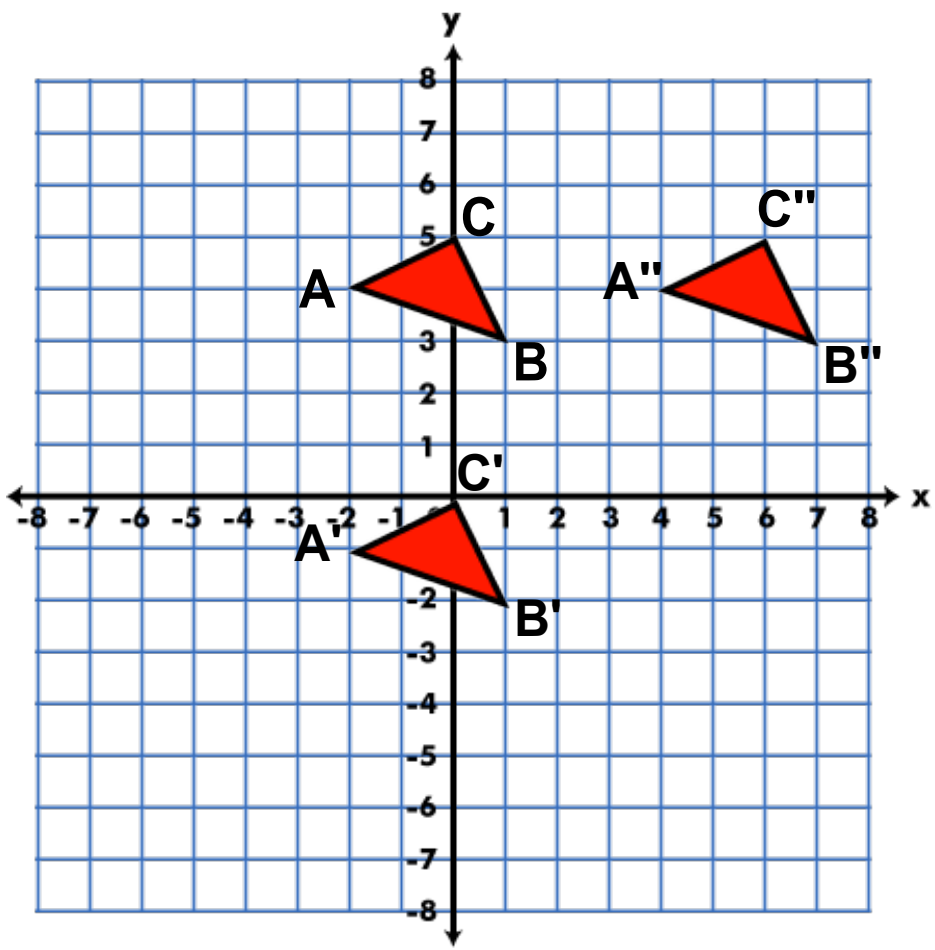
A" B" C"

DRAG

Translate ABC 6 units right and label the image A"B"C"

A(-2,4) A"(___,___)
B(1,3) B"(___,___)
C(0,5) C"(___,___)

Solution



5 units down

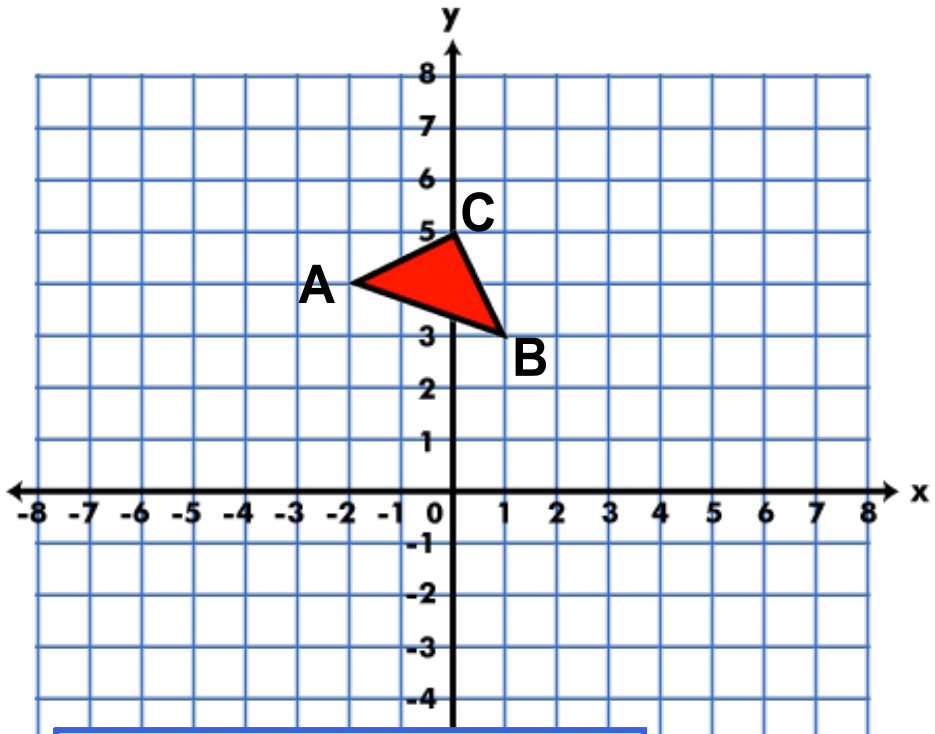
A(-2,4) A'(-2,-1)
B(1,3) B'(1,-2)
C(0,5) C'(0,0)

6 units right

A(-2,4) A''(4,4)
B(1,3) B''(7,3)
C(0,5) C''(6,5)

Translate ABC 3 units left and 8 units down

CLONE



Label the image A'B'C'

A' B' C'

A(-2,4) A'(__,__)

B(1,3) B'(__,__)

C(0,5) C'(__,__)

DRAG

SUMMARY

ANSWER

A(-2,4) A'(-5,-4)
B(1,3) B'(-2,-5)
C(0,5) C'(-3,-3)

Write the ordered pair for each given translation

E (5,1)
5 units left, 1 unit down
E' (___,___)

F(2,-3)
6 units right, 10 units up
F' (___,___)

G(-5,4)
2 units right, 9 units down
G' (___,___)

ANSWER

Let's Summarize:

To move up, add to y (ex. y + 2) (x, y) --> (x, y + 2)	(2, 2) --> (2, 4) translated up 2
To move down, subtract from y (ex. y - 4) (x, y) --> (x, y - 4)	(2, 2) --> (2, 0) translated down 2
To move right, add to x (ex. x + 3) (x, y) --> (x + 3 , y)	(2, 2) --> (4, 2) translated right 2
To move left, subtract from x (ex. x - 5) (x, y) --> (x - 5, y)	(2, 2) --> (0, 2) translated left 2

Translations - Let's Practice

Using arrow notation to write a rule.

Example:

1) Write a rule that would move a point 2 units to the right and 8 units down.

$(x, y) \longrightarrow$

2) Write a rule that would move a point 4 units left.

$(x, y) \longrightarrow$

3) Write a rule that would move a point 8 units to the down.

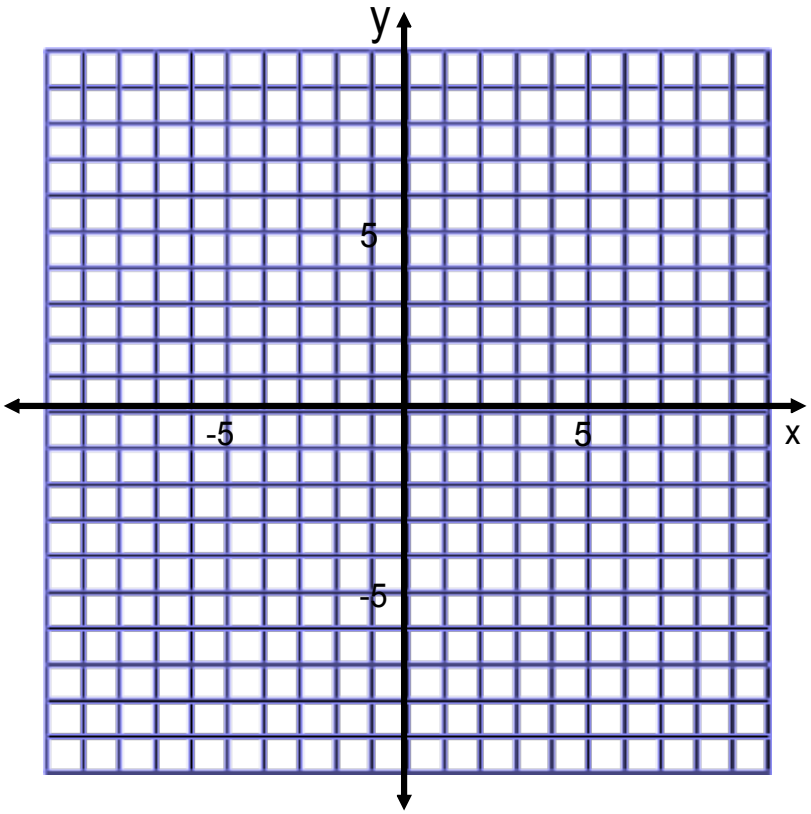
$(x, y) \longrightarrow$

Graph the given point then the image of each point after the given transformation.

4) A(4, 6)
Translate left 3 units and down 2 units.

5) B(-5, 2)
Translate right 9 units and up 1 unit.

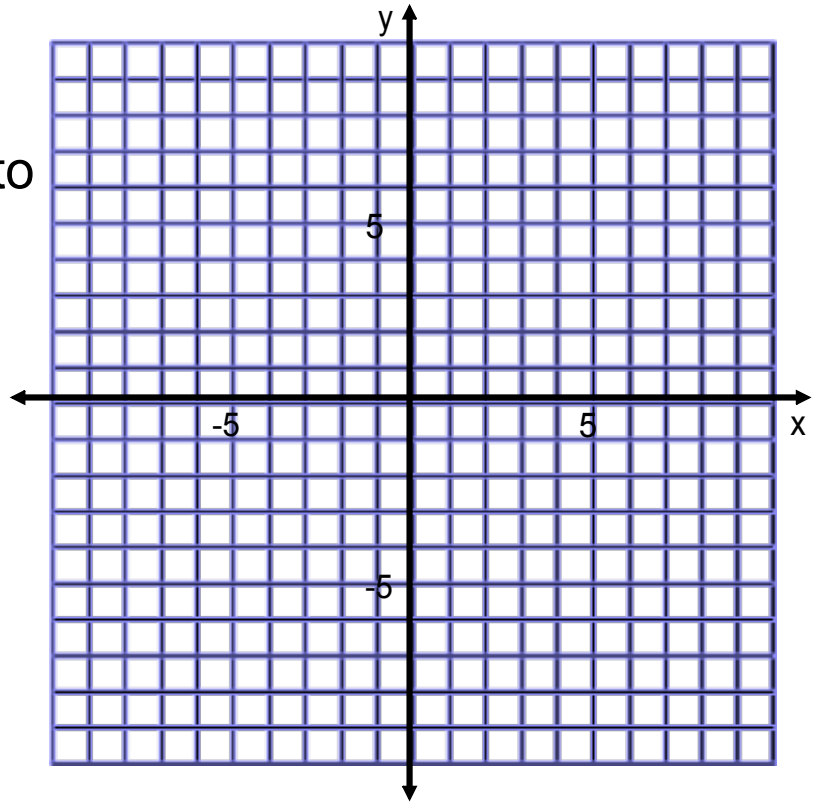
6) C(8, -3)
$(x, y) \longrightarrow (x, y + 4)$



7) (a) Graph triangle XYZ with vertices X(-6, -6) Y(-2, -1) and Z(-2, -6).

(b) Graph the image of triangle XYZ after a translation of 7 units to the right and 4 units up.

(c) Give the coordinates of the image.

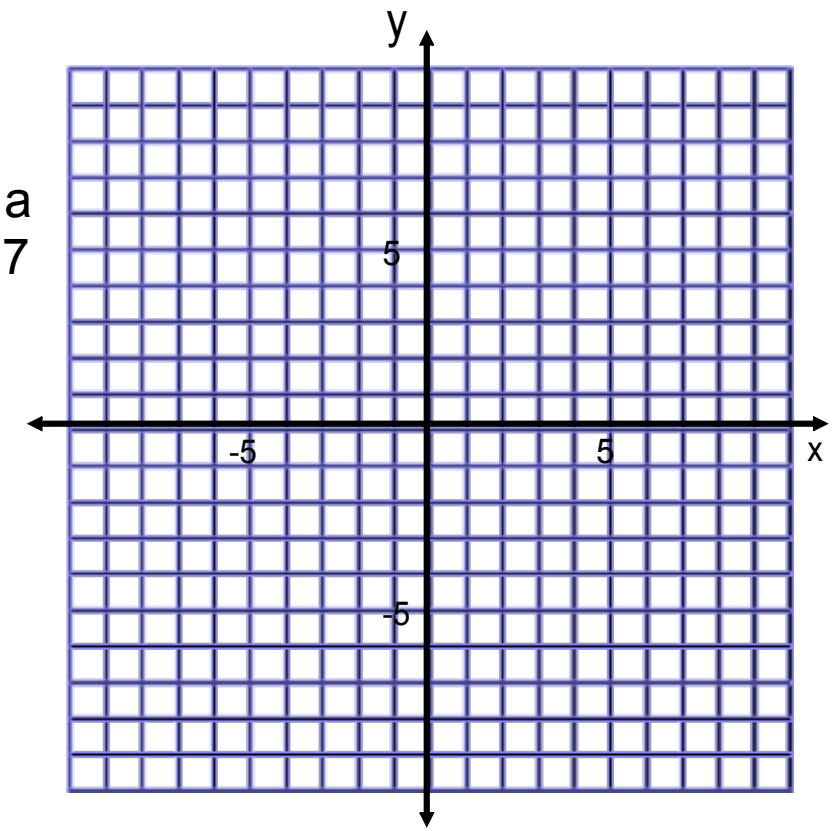


8) (a) Graph quadrilateral DEFG with vertices D(2, 2) E(3, 4) F(8, 4) and G(7, 2).

(b) What kind of quadrilateral is DEFG?

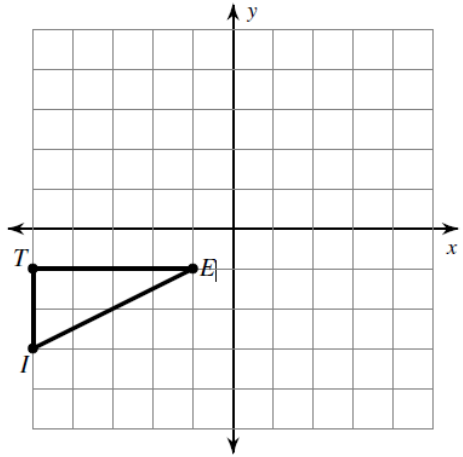
(c) Graph the image of DEFG after a translation of 3 units to the left and 7 units down.

(d) Explain how you graphed the image.

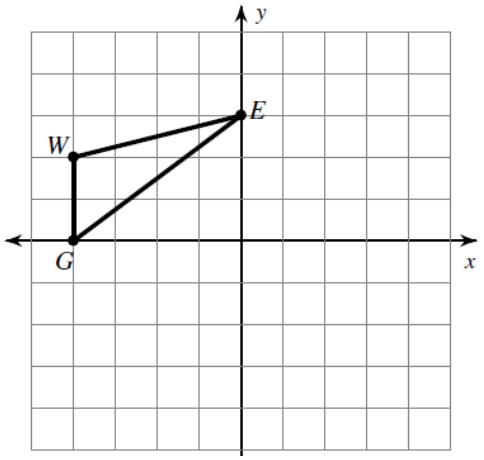


Practice:

1) translation: 4 units right and 2 units up

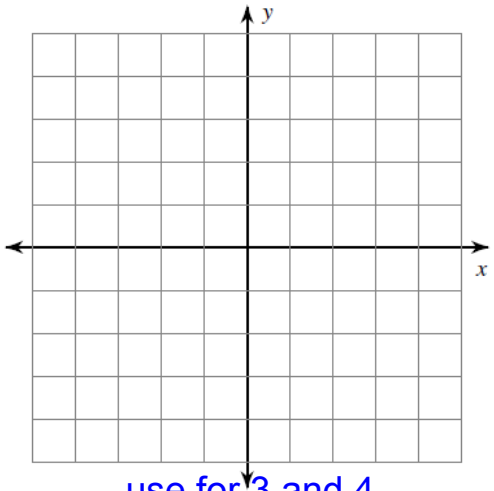


2) translation: 1 unit left and 5 units down



3) translation: 2 units left and 1 unit down
$Q(0, -1)$, $D(-2, 2)$, $V(2, 4)$, $J(3, 0)$

4) translation: 3 units right and 4 units up
$Z(-4, -3)$, $I(-2, -2)$, $V(-2, -4)$



use for 3 and 4

Attachments

Translation.pdf