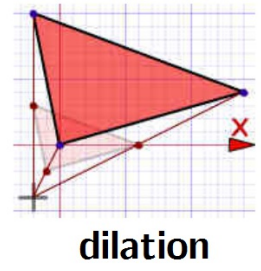
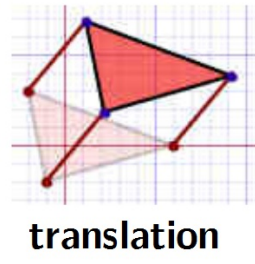
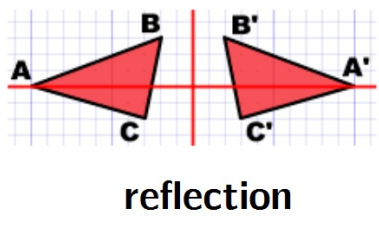
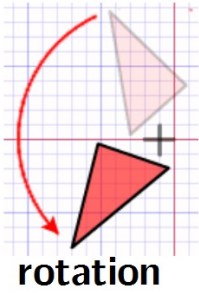


Volunteer: drag the term to the correct image



write these terms down in notes/book (p. 103 or 104 is good)

translation: a slide, where each point moves the same distance in the same directions.

reflection: a flip across a line

rotation: a turn around a fixed point

dilation: resizing an object proportionally (growth or shrink)

rigid transformation: maintains size and shape, just changes location
synonym: isometry

non-rigid transformation: does not maintain size, but shape remains intact

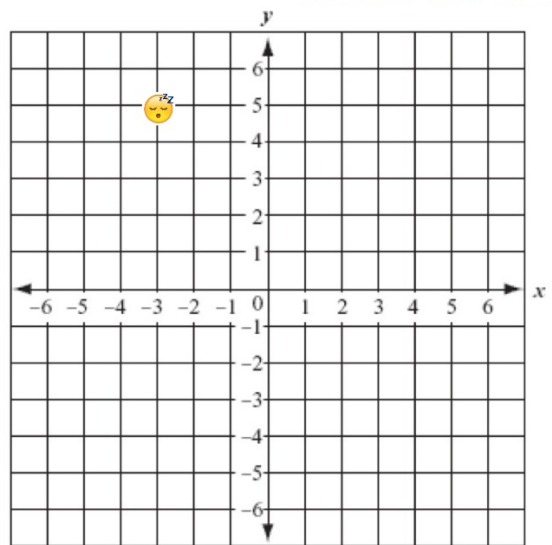
which transformations on the last page are rigid?

which are non-rigid?

How to use bring numbers into the story: **arrow notation** **TAKE NOTES!**

$$(x,y) \rightarrow (x+3, y-2)$$

Think: What does the above rule do to an object on the coordinate plane?
Explain in words (not math).

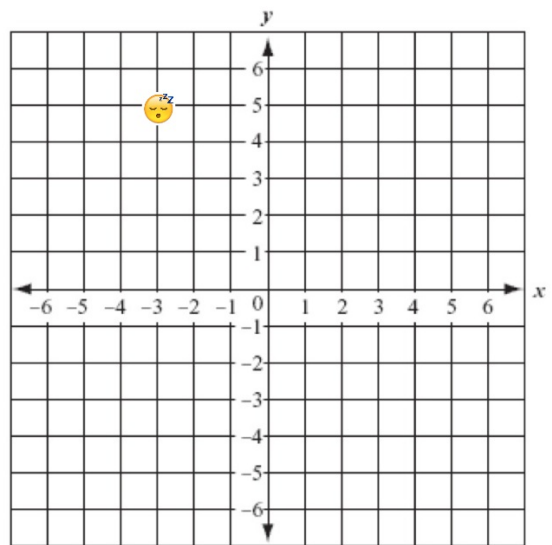


How to use bring numbers into the story: **arrow notation**

$$(x,y) \rightarrow (\underline{x+3}, y - 2)$$

moves right 3, moves down 2

Think: What does the above rule do to an object on the coordinate plane?
Explain in words (not math).

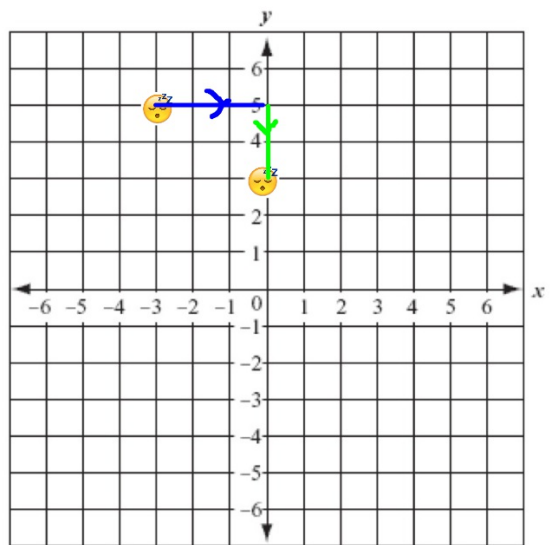


How to use bring numbers into the story: **arrow notation**

$$(x,y) \rightarrow (\underline{x+3}, \underline{y-2}) \quad (x, y) \rightarrow (x+3, y-2)$$

moves right 3, moves down 2 $(-3, 5) \rightarrow (-3+3, 5-2)$
 $(0, 3)$

Think: What does the above rule do to an object on the coordinate plane? Explain in words (not math).



Your turn!

p. 105: #6a and #6b

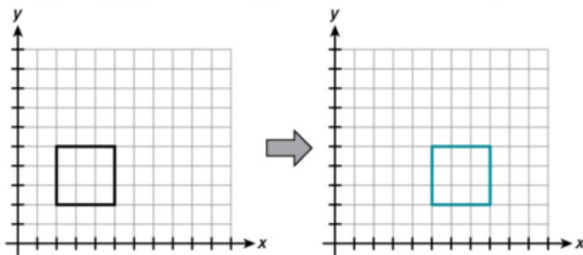
Hints: use the vertices/corners of the shapes and find their (x,y) coordinates
then apply the given rules

Solutions

6a: $(x,y) \rightarrow (x+3, y)$

rigid transformation/isometry

translated 3 right

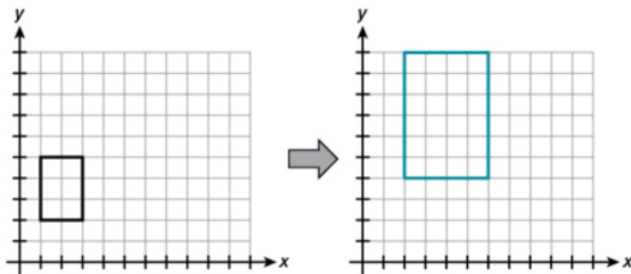


6b:

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

non-rigid transformation (size changed)

dilation



So when you multiply coordinates,
you have a dilation.