

Mathematics

Enlargement by a negative scale factor

Lesson 4 of 8

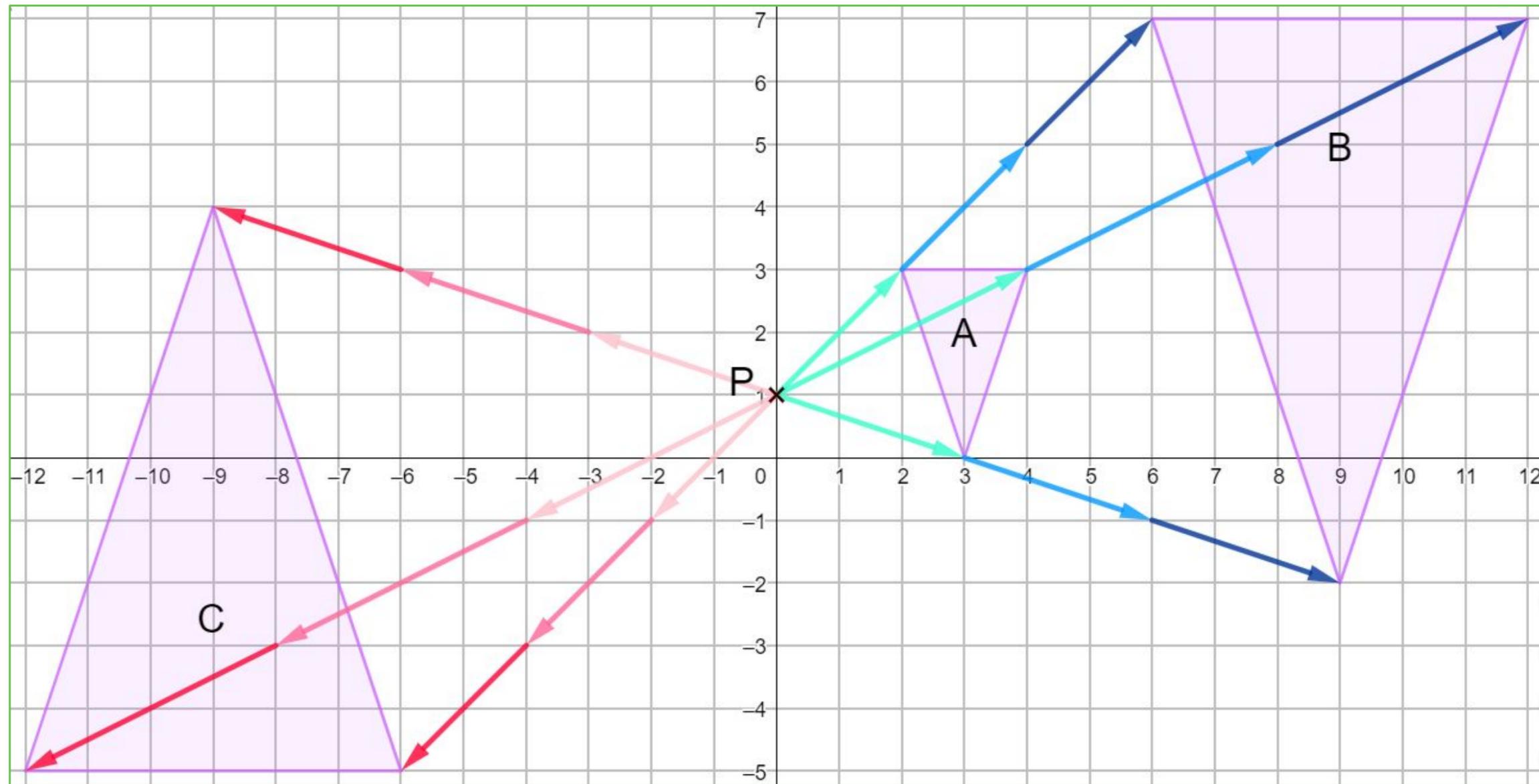
Downloadable Resource

Miss Kidd-Rossiter

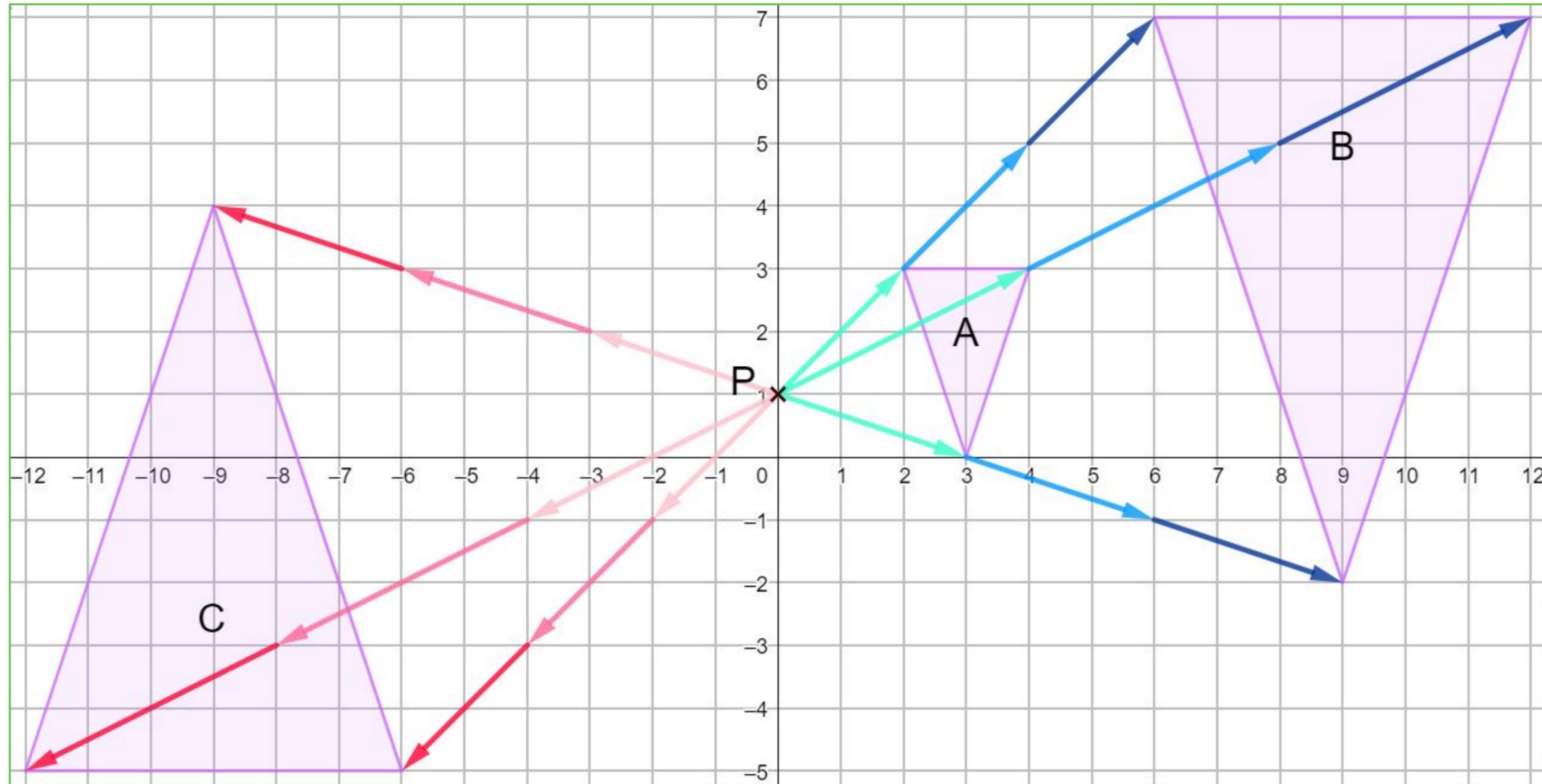


Try this

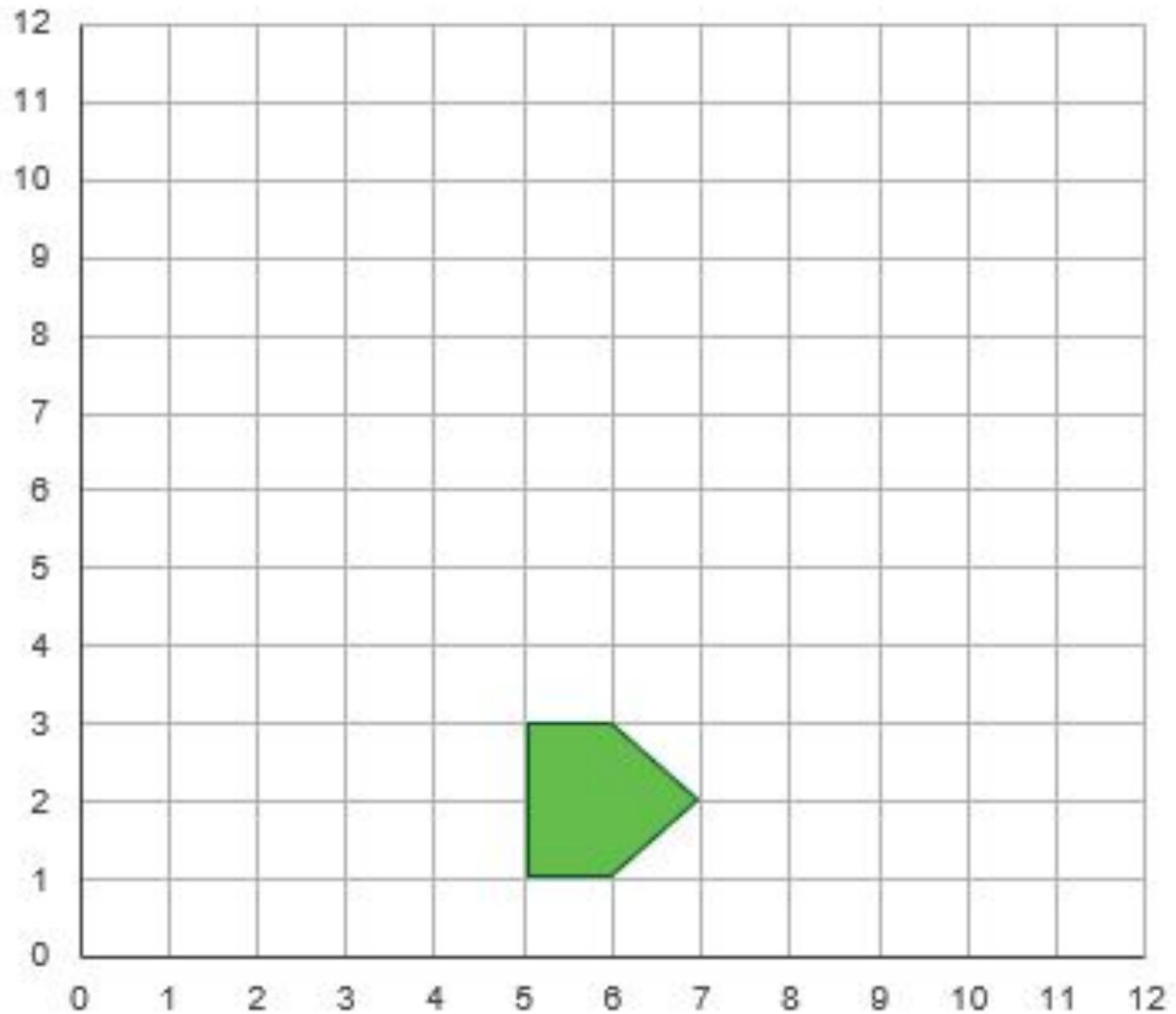
What's the same and what's different?



Connect



Independent task



1. Copy down the diagram to the left. Enlarge the shape by:
 - a. Scale factor -1 from (6, 4)
 - b. Scale factor -1 from (7, 4)
 - c. Scale factor -1 from (4, 4)
 - d. Scale factor -1 from (4, 2)
 - e. Scale factor -2 from (5, 3)

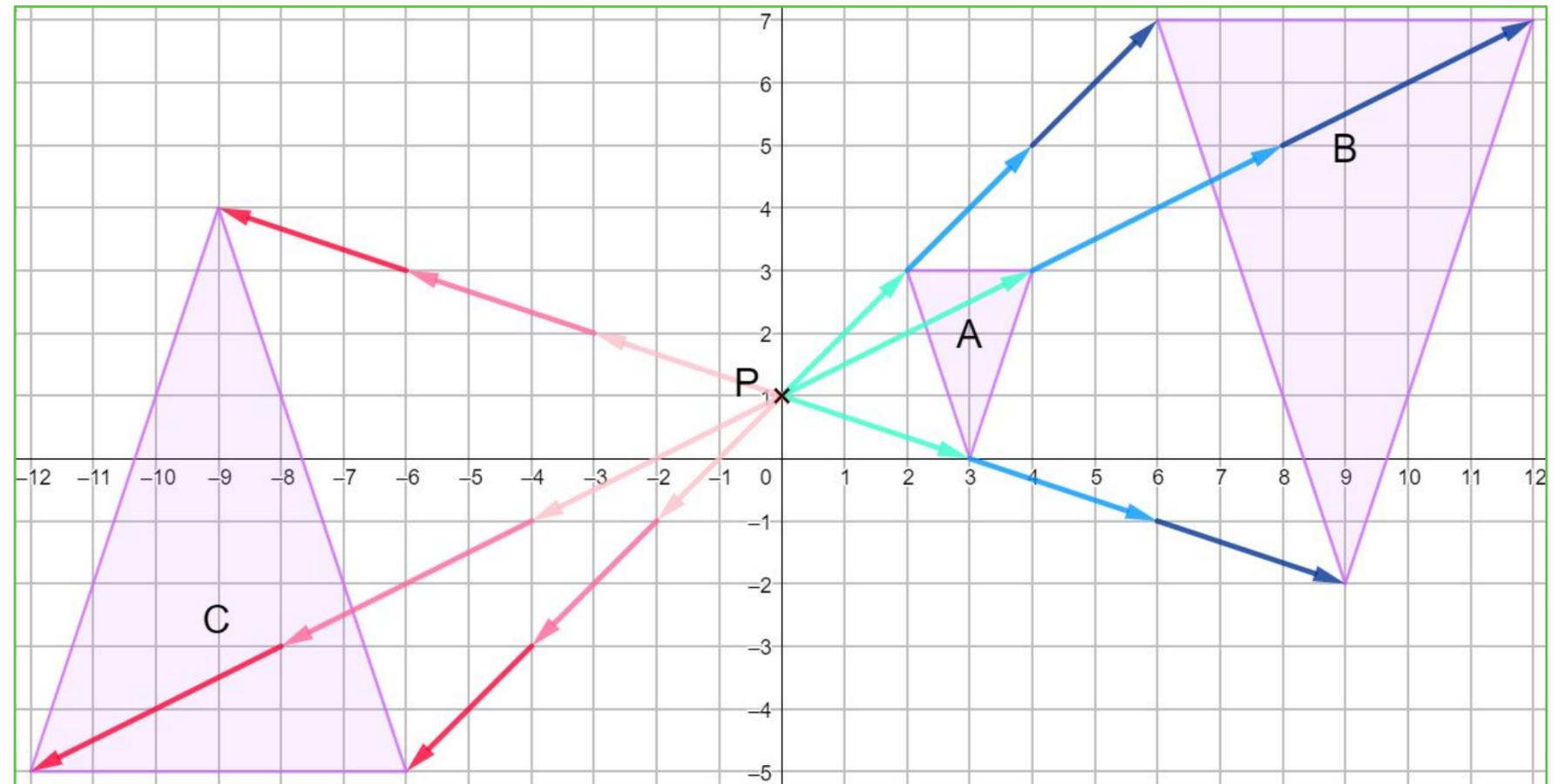


Independent task

2. Draw a set of axes like the ones below. Copy A and P.

Enlarge A with centre P and:

- a. Scale factor -2
- b. Scale factor -1.5
- c. Scale factor -0.5



Explore

Zaki is going to enlarge the shape in the diagram about the marked point

Give an example of a scale factor he could be thinking of.

Can you write a similar statement for each of the following scales factors ranges?

Scale factor = 1

Scale factor = -1

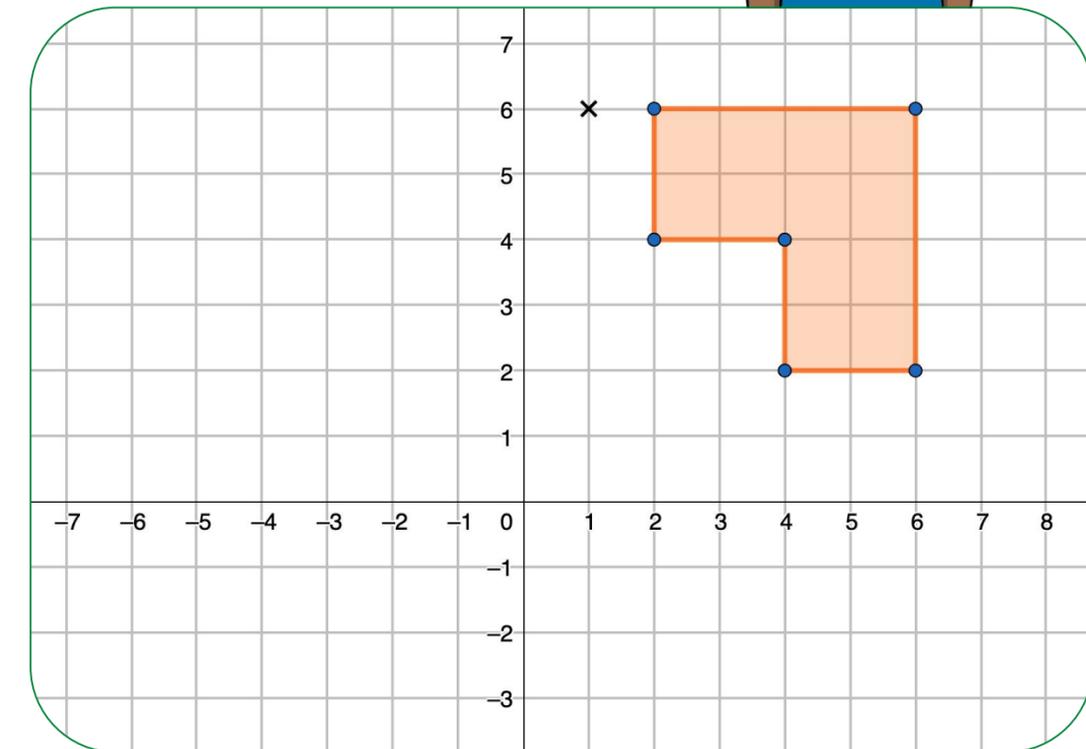
$-1 < \text{Scale factor} < 0$

$0 < \text{Scale factor} < 1$

Scale factor > 1

Scale factor < -1

The image will have a greater area and the same orientation as the object



Explore

Scale factor = 1

$0 < \text{Scale factor} < 1$

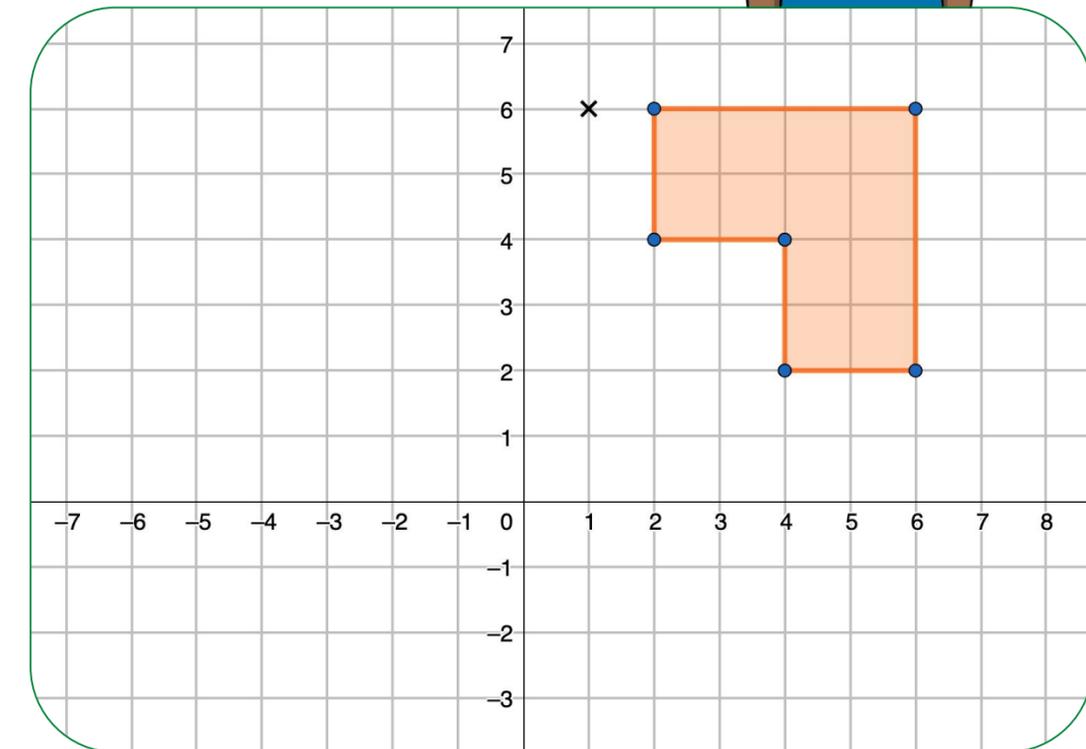
Scale factor = -1

Scale factor > 1

$-1 < \text{Scale factor} < 0$

Scale factor < -1

The image will have a greater area and the same orientation as the object



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