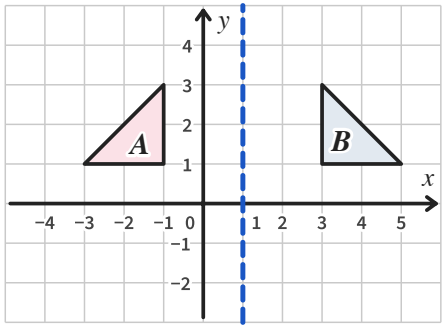
Describing reflections

ANSWERS

1

Describe fully the single transformation that maps shape A onto shape B.



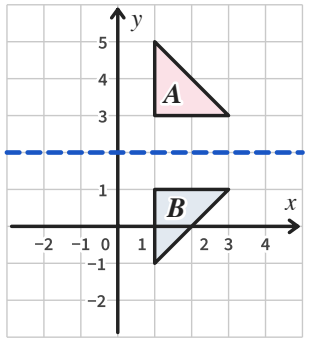
halfway: between −1 and 3 is 1

the line is vertical

Reflection in the line $x = 1$

2

Describe fully the single transformation that maps shape A onto shape B.



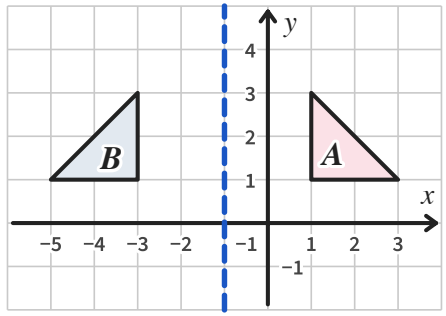
halfway: between 5 and −1 is 2

the line is horizontal

Reflection in the line $y = 2$

3

Describe fully the single transformation that maps shape A onto shape B.



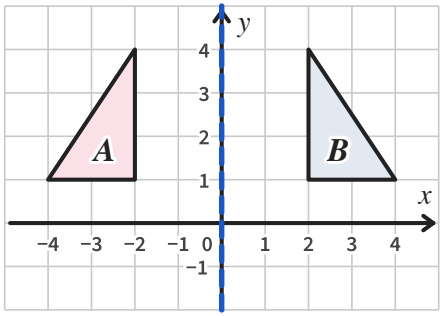
halfway: between 1 and −3 is −1

the line is vertical

Reflection in the line $x = -1$

4

Describe fully the single transformation that maps shape A onto shape B.

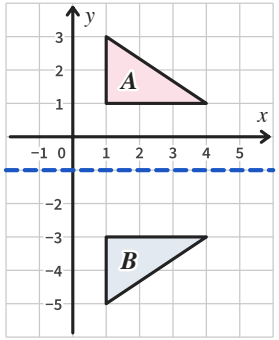


halfway: between −2 and 2 is 0

Reflection in the line $x = 0$

5

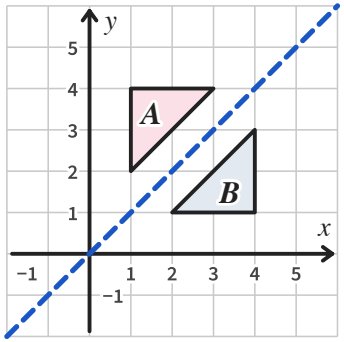
Describe fully the single transformation that maps shape A onto shape B.



Reflection in the line $y = -1$

6

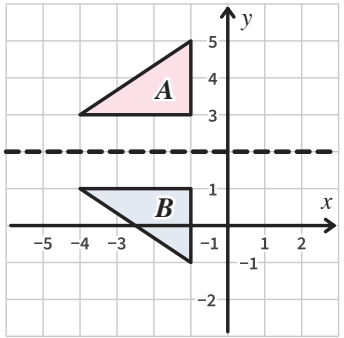
Describe fully the single transformation that maps shape A onto shape B.



Reflection in the line $y = x$

7

Sam says this is a reflection in the line $x = 2$. Explain Sam's mistake.

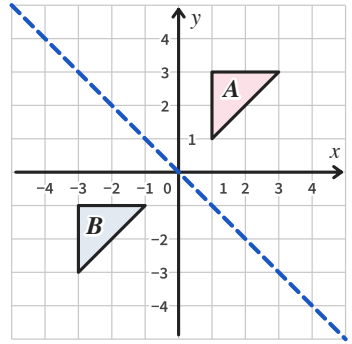


mistake: the line is horizontal

so it is: the line $y = 2$

8

Describe fully the single transformation that maps shape A onto shape B.



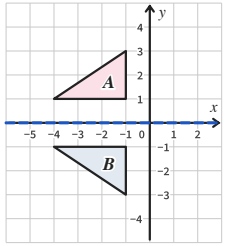
Reflection in the line $y = -x$

Describing reflections *further practice*

ANSWERS

9

Describe fully the single transformation that maps shape A onto shape B.



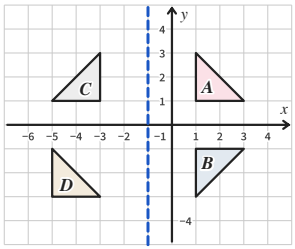
3 and −3: halfway 0

the x axis, y = 0

Answer Reflection in the line y = 0

10

Which shape is the reflection of shape A in the line $x = -1$?



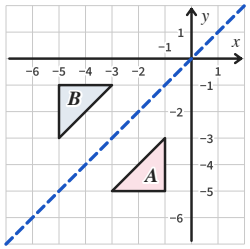
1 and −3: halfway −1

B is a reflection in y = 0; D is not flipped

Answer C

11

Describe fully the single transformation that maps shape A onto shape B.



halfway (−2, −2) and (−4, −4)

x and y equal: y = x

Answer Reflection in the line y = x

12

The point (−3, 2) is reflected onto the point (5, 2). Write down the equation of the mirror line.

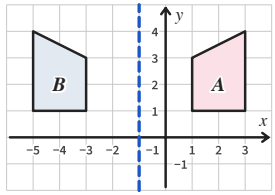
halfway between −3 and 5 is 1

same y, so the line is vertical

Answer x = 1

13

Flower bed A is reflected in the middle of a straight path to give bed B.
Find the equation of the line along the middle of the path.



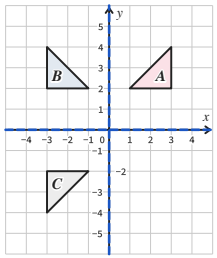
1 and −3: halfway −1

check: 3 and −5, halfway −1

Answer x = −1

14

Describe fully the reflection that maps A onto B, and the one that maps B onto C.



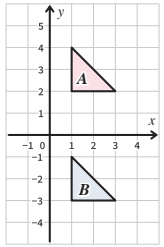
A to B: reflection in x = 0

B to C: reflection in y = 0

Answer x = 0, then y = 0

15

Leo says shape B is a reflection of shape A in the x axis.
Is he right? Explain.



(1, 4) is 4 from the axis, (1, −1) is 1

B is not flipped: A has moved down

Answer No

16

Shape A is reflected in the y axis to give shape B. Mia says B's corner (−3, 4) came from A's corner (3, −4).
Is Mia right? Explain.

in the y axis, y stays the same

(3, −4) would go to (−3, −4)

Answer No, from (3, 4)