

# Homework/Extension

## Step 3: Translations

### National Curriculum Objectives:

Mathematics Year 6: (6P2) [Draw and translate simple shapes on the coordinate plane, and reflect them in the axes](#)

Mathematics Year 6: (6P3) [Describe positions on the full coordinate grid \(all four quadrants\)](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Find the odd one out by translating regular shapes. Includes one movement per translation across all four quadrants.

**Expected** Find the odd one out by translating quadrilaterals. Includes two movements per translation across all four quadrants.

**Greater Depth** Find the odd one out by translating shapes with up to 6 sides. Includes two movements per translation across all four quadrants and plots between increments.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Identify whether a statement is correct by finding the translations of regular shapes. Includes one movement per translation across all four quadrants.

**Expected** Identify whether a statement is correct by finding the translations of quadrilaterals. Includes two movements per translation across all four quadrants.

**Greater Depth** Identify whether a statement is correct by finding the translations of shapes with up to 6 sides. Includes two movements per translation across all four quadrants and plots between increments.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Explain who is correct when translating regular shapes. Includes one movement per translation across all four quadrants.

**Expected** Explain who is correct when translating quadrilaterals. Includes two movements per translation across all four quadrants.

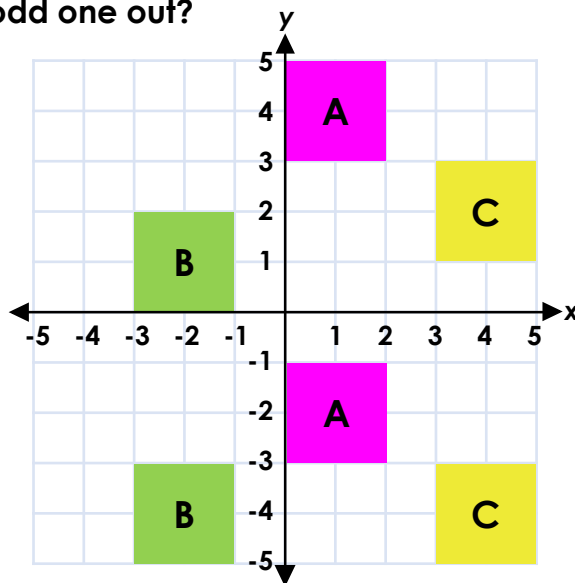
**Greater Depth** Explain who is correct when discussing the translation of shapes. Includes two movements per translation across all four quadrants and plots between increments.

More [Year 6 Position and Direction](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

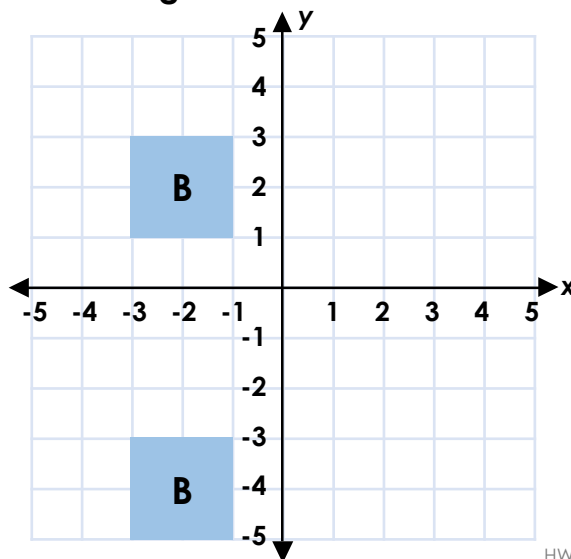
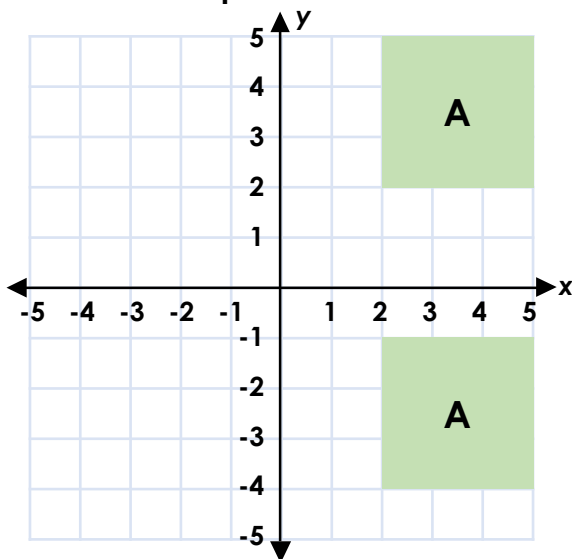
# Translations

1. Which translation is the odd one out?



VF  
HW/Ext

2. True or false? Shapes A and B have been translated using the same instructions.



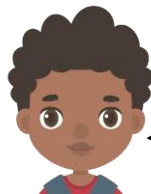
VF  
HW/Ext

3. Kirsty and Alfonz have been shown a translation.



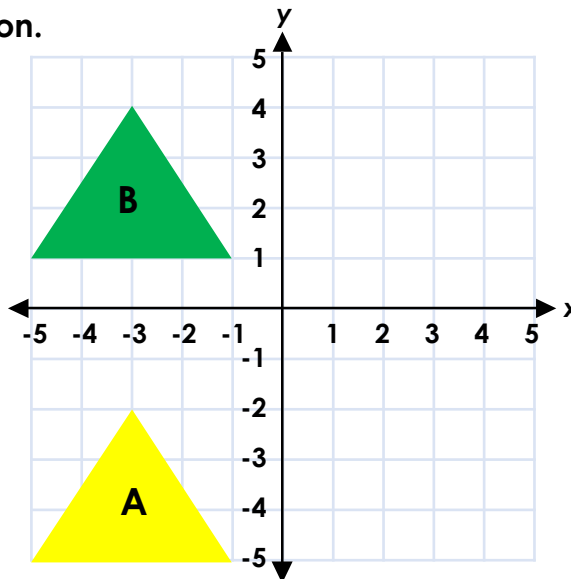
Kirsty

I think that shape A has been translated 3 squares up.



Alfonz

I think that shape A has been translated 6 squares up.



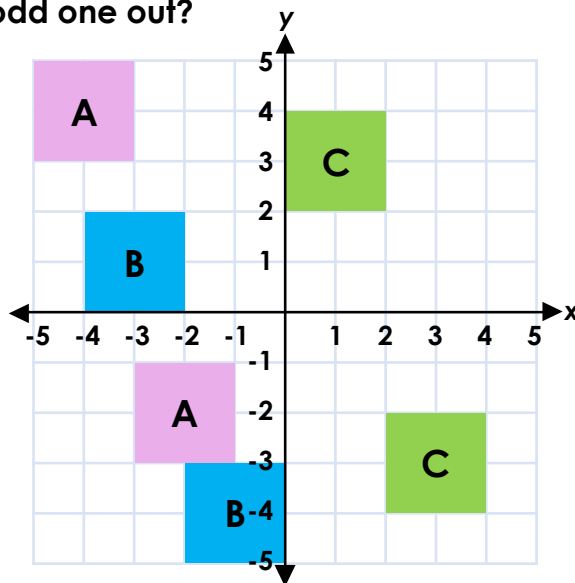
Who do you agree with? Explain your answer.



RPS  
HW/Ext

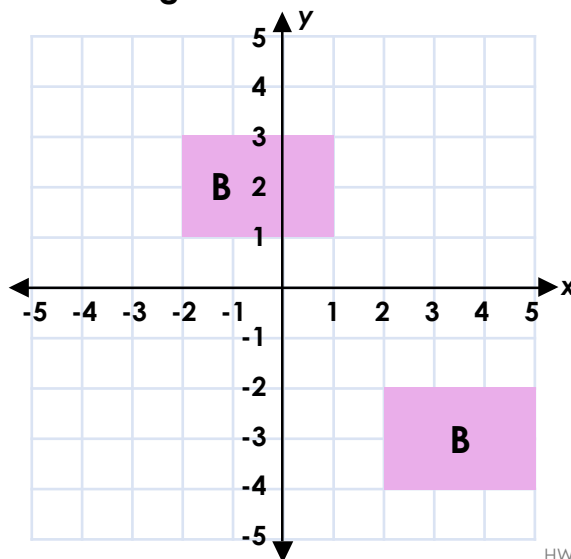
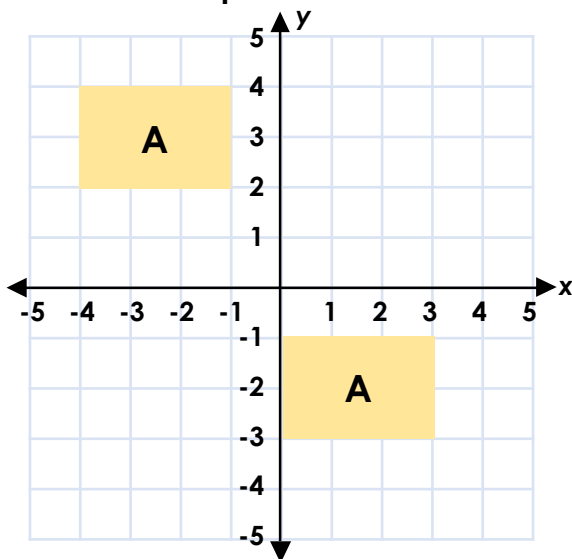
# Translations

4. Which translation is the odd one out?



VF  
HW/Ext

5. True or false? Shapes A and B have been translated using the same instructions.



VF  
HW/Ext

6. Chris and Alana have been shown a translation.



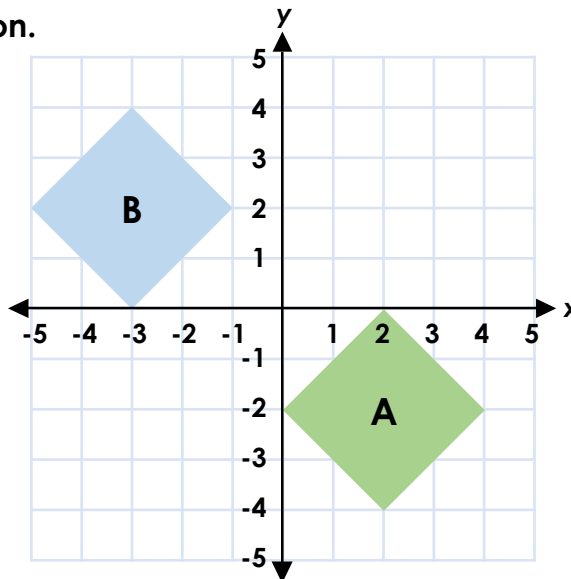
Chris

I think that shape A has been translated 5 squares left.



Alana

I think that shape A has been translated 5 squares left and 4 squares up.



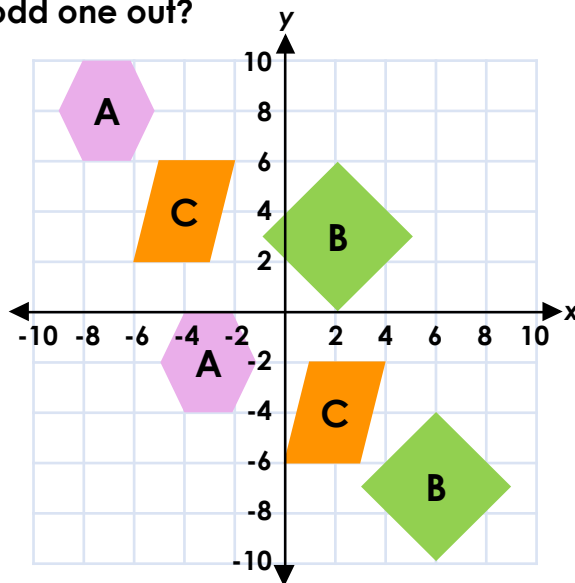
Who do you agree with? Explain your answer.



RPS  
HW/Ext

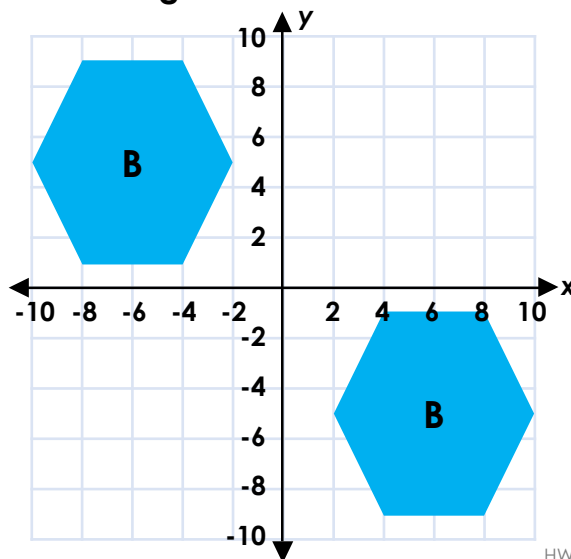
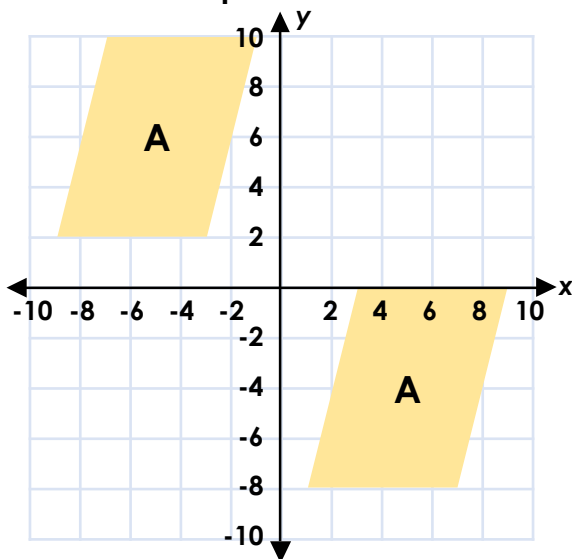
# Translations

7. Which translation is the odd one out?



VF  
HW/Ext

8. True or false? Shapes A and B have been translated using the same instructions.



VF  
HW/Ext

9. Zach and Helena are discussing translations.



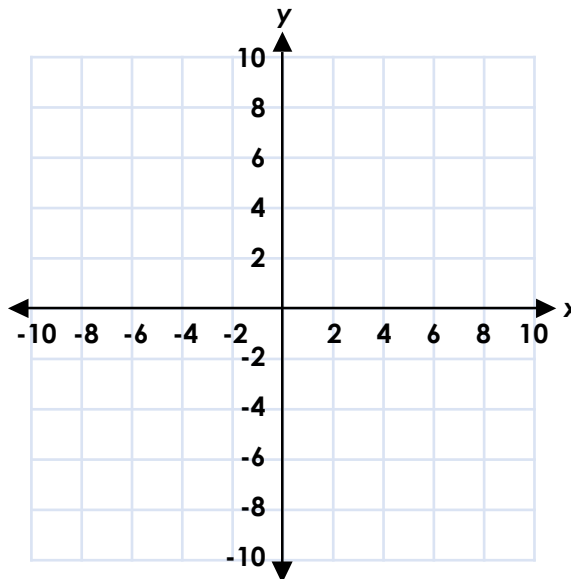
Zach

I think that if a shape has a coordinate plotted at (10, 10), it can only be translated to the left and down.



Helena

I think that if a shape has a coordinate plotted at (10, 10), it could be translated right and up.



Who do you agree with? Prove it.



RPS  
HW/Ext

## Homework/Extension Translations

### Developing

1. B. It has been translated 5 down. A and C have been translated 6 down.
2. True
3. Alfonz is correct. Various possible answers, for example: I agree with Alfonz because he has moved the top of shape A to the top of shape B. Kirsty has moved the top of shape A to the bottom of shape B.

### Expected

4. B. It has been translated 5 down and 2 right. A and C have been translated 6 down and 2 right.
5. True
6. Alana is correct. Various possible answers, for example: I agree with Alana because Chris has moved the top of shape A to the bottom of shape B.

### Greater Depth

7. C. It has been translated 8 down and 6 right. A and B have been translated 10 down and 4 right.
8. False. A has been translated 10 down and 10 right. B has been translated 10 down and 12 right.
9. Helena is correct. Various possible answers, for example: I agree with Helena because the grid can go beyond (10, 10). Accept any shape that has been plotted beyond the coordinate (10, 10) that is a translation of an original shape.