Reasoning and Problem Solving Translation

Developing

1a. Niall has translated shape A incorrectly. He has translated it 1 right instead of 1 left.

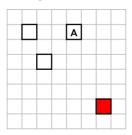
2a. 1 left, 0 down

3a. No, mirrors are used to reflect shapes.

Expected

4a. Megan has incorrectly translated the shape 1 left, 4 down. She has only moved it 3 down. The shape needs to move down another square.

5a. 2 right, 5 down

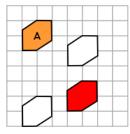


6a. Yes. Left or right comes before up or down as this is the order coordinates are also read. Children should support their answer by drawing their own example of a translation.

Greater Depth

7a. Clarissa has incorrectly translated the shape 3 right, 3 down. She has only moved it 2 down. The shape needs to move down another square.

8a. 3 right, 4 down



9a. No, one diagonal instruction would not work as the direction of translation would not be clear. Children should support their answer by drawing their own example of a translation.

Reasoning and Problem Solving Translation

Developing

1b. Melissa has translated shape B incorrectly. She has translated it 2 up instead of 1 up.

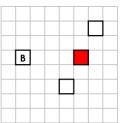
2b. 2 right, 3 up

3b. No, the dimensions stay the same.

Expected

4b. Peter has not correctly translated each point of the shape (1 right and 3 up) so this has changed the size of the shape.

5b. 4 right, 0 down

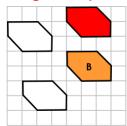


6b. No. The angles stay the same as the dimensions do not change. Children should support their answer by drawing their own example of a translation.

Greater Depth

7b. Jace has incorrectly translated the shape 5 left, 4 down. The shape needs to move 1 square left and 1 square down.

8b. 0 right, 3 up



9b. Yes, you are more likely to get an accurate translation this way. Children should support their answer by drawing their own example of a translation.

