Translation

1. Complete the translations.
   a) Translate the shape 4 squares to the right.
      ![Translation 1a](image)
   b) Translate the shape 2 squares up.
      ![Translation 1b](image)
   c) Translate the shape 4 squares right, 2 squares up.
      ![Translation 1c](image)
   d) Translate the shape 3 squares left, 5 squares down.
      ![Translation 1d](image)

2. Four shapes have been drawn on a grid.
   a) Translate shape A 5 squares to the right and 3 squares down.
   b) Translate shape B 4 squares to the left and 7 squares down.
   c) Translate shape C 6 squares to the left.
   d) Translate shape D 4 squares to the right and 8 squares up.

3. Dora has translated triangle A 2 squares to the right and 7 squares up.
   ![Translation 3](image)

   Is Dora’s drawing correct? **No**
   Explain why.
4 Complete the sentences to describe the translations.

a) Shape A has been translated 3 squares to the right and 4 squares down.

b) Shape B has been translated 7 squares to the left and 2 squares up.

c) Shape C has been translated 5 squares to the right and 0 squares up/down.

5 A shape has been drawn on a coordinate grid.

a) Translate shape D 4 squares to the left and 6 squares up. Label the new shape E.

b) Describe the translation from shape E to shape D.

4 squares to the right and 6 squares down.

What do you notice? Does this always happen?

6 Eight polygons are drawn on the grid.

a) Translate shape A 10 squares up.

b) Translate shape B 6 squares down.

c) Translate shape C 6 squares left.

d) Translate shape D 9 squares to the right and 4 squares down.

e) Translate shape E 10 squares to the right and 3 squares down.

f) Translate shape F 7 squares to the right and 3 squares up.

g) Translate shape G 9 squares to the left and 1 square up.

Create your own problem like this for a partner.