



Translation

- Describing a translation
- Applying a translation to a shape
- Using coordinates to describe a translation

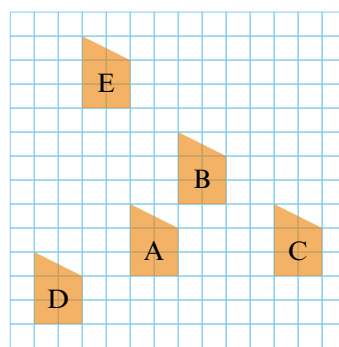
Keywords

You should know

explanation 1

1 Describe these translations.

- | | |
|----------------------------|----------------------------|
| a $A \rightarrow B$ | b $A \rightarrow C$ |
| c $B \rightarrow A$ | d $C \rightarrow A$ |
| e $D \rightarrow A$ | f $A \rightarrow E$ |
| g $A \rightarrow D$ | h $E \rightarrow A$ |



2 P is mapped to Q by the translation 3 units right and 2 units down.

Describe the translation that maps Q to P.

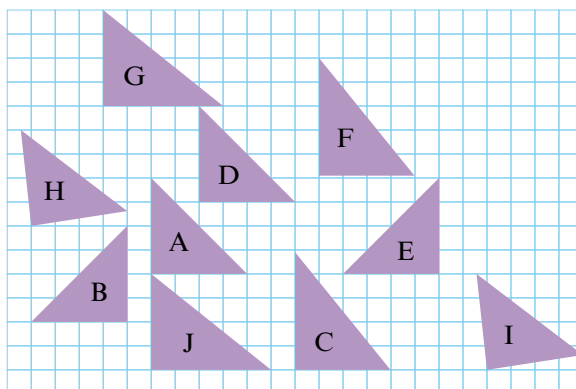
3 In this diagram, each triangle can be mapped to one other triangle by a translation.

For each of the following

i copy and complete the mapping

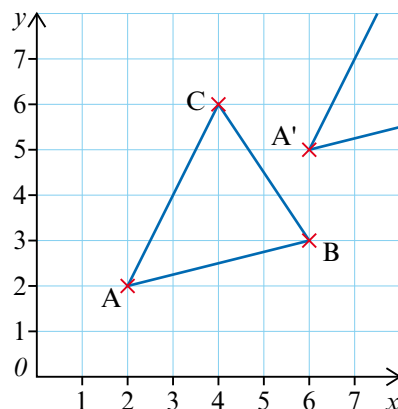
ii describe the translation.

- | | |
|----------------------------------|----------------------------------|
| a $A \rightarrow \square$ | b $\square \rightarrow F$ |
| c $J \rightarrow \square$ | d $\square \rightarrow I$ |
| e $B \rightarrow \square$ | |



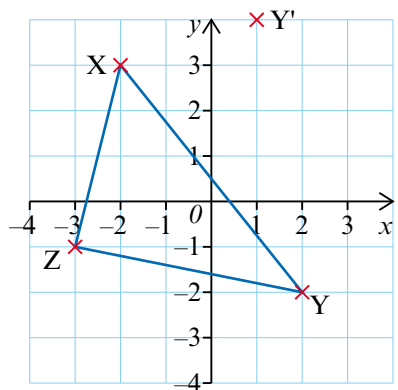
- 4** Triangle ABC is mapped to triangle A'B'C' by a translation.

- Write down the coordinates of A and A'.
- Describe the translation.
- Find the coordinates of B' and C'.



- 5** Triangle XYZ is mapped to triangle X'Y'Z' by a translation.

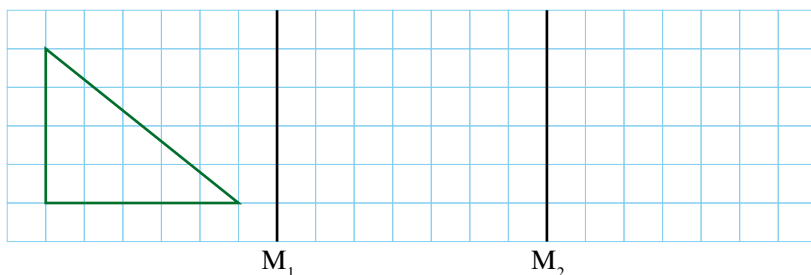
- Describe the translation.
- Find the coordinates of X' and Z'.



- 6** A translation maps (3, 7) to (5, 2).

- Describe the translation.
- Find the image of these points under the same translation.
 - (1, 9)
 - (-1, 6)
 - (-4, -2)
- Which point maps to (3, -3) under this translation?

- 7** Copy this diagram showing a triangle and two mirror lines M_1 and M_2 .



- Reflect the triangle in M_1 .
- Reflect the image in M_2 .
- Describe the translation equivalent to the two reflections.