(1) Here is a map of part of a town.

a) Ron is standing at $(1,1)$.

He walks to the school gates at point $(3,1)$.
Complete the sentence to describe his journey.
Ron walks 2 to the right.
b) Rosie is standing at $(4,0)$.

She walks to the slide in the park at point (4, 3).
Complete the sentence to describe her journey.
Rosie walks 3 up.
c) Annie is at $(5,5)$ and wants to walk to the slide in the park. What route could she take to get there?
2) A map of the world is shown on a grid.


Complete the sentences to describe the movement of planes.
a) Plane 1 flies from $A$ to $D$.

Plane 1 flies $\square$ right.
b) Plane 2 flies from A to B

Plane 2 flies 2 right and 5 down.
c) Plane 3 flies from $C$ to $D$.

Plane 3 flies 3 right and 3 up.
d) Plane 4 flies from $E$ to $D$.


Five points are drawn on a grid.


Complete the sentences to describe the translations.
a) $C$ to $D$ is a translation 6 right.
b) $A$ to $D$ is a translation $\square$ down.
c) $E$ to $C$ is a translation $\square$ right and $\square$
d) $C$ to $A$ is a translation $\square$ 6 right and 8 up
e) $A$ to $B$ is a translation $\square$ lest and
 down

How many other translations can you describe from the grid?

Two points, $X$ and $Y$, are shown on the grid.

a) Describe the translation from $X$ to $Y$.
$\qquad$
$\qquad$
b) Describe the translation from Y to X .


What do you notice? Does this always happen?
5) A triangle is drawn on the grid.


It is translated so that the vertex M moves to $(7,4)$.
a) Describe the translation.

b) Draw the translated triangle on the grid to show its new position. Create your own problem like this for a partner.

