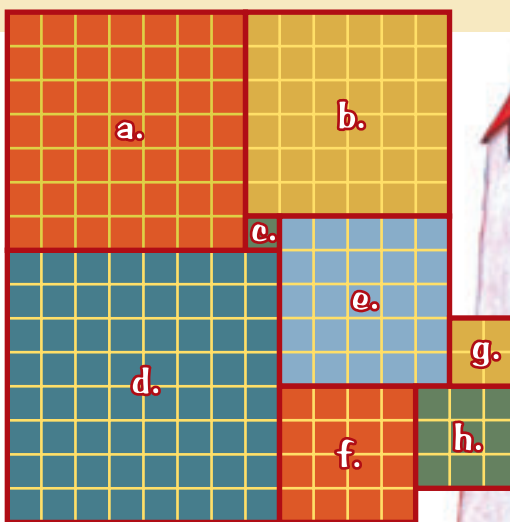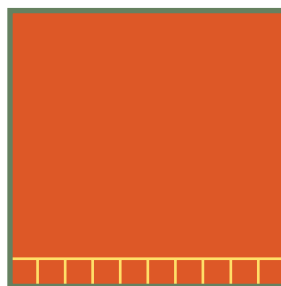# All Square

You need ☑ a classmate

Activity One

The floor of every room in the Shape family's house is a square.
The lines show the edges of the tiles used to cover the floor.
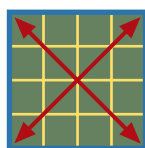
1. How many tiles are on the floor of each room?

2. How many tiles would be on the floor of a square room that is 10 tiles wide?

3. a. If you were tiling just rooms a–f, how many tiles would you need?

   b. What strategy did you use to work this out?
      Discuss with a classmate if there is an easy way to do this.

Activity Two

In this square room, the diagonals pass through eight tiles.
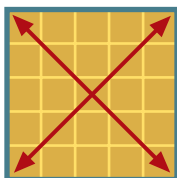
1. How many tiles do the diagonals of these rooms pass through?
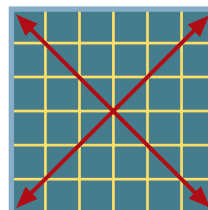   (Do not count the same tile twice.)

   a.   b.   c.   d.

2. If a square room is nine tiles wide, how many tiles will its diagonals pass through?

3. Can you find a rule for working out the number of tiles cut by the diagonals?

Describing relationships