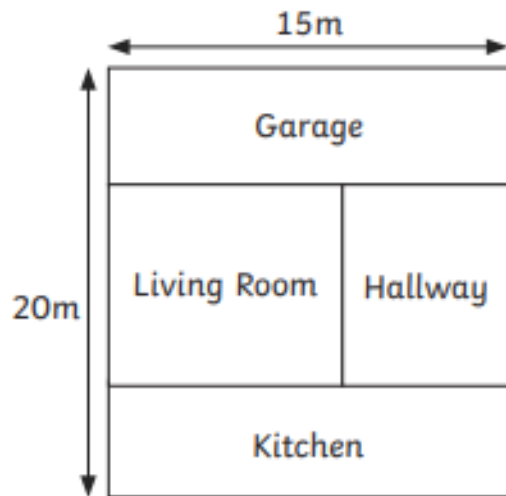


- 1) Here is the layout of one floor of a house not drawn to scale.



Use the clues below to work out the area of each room and the total area of this floor of the house.

- The garage and the kitchen are identical rectangles.
- The whole house is 20m long and 15m wide.
- The garage has walls of 15m and 4m.
- The living room is a square.



15m

Garage

Living Room

Hallway

Kitchen

20m

Garage has walls of 15m and 4m.

$$15 \times 4 = 60$$

Area of garage = 60m^2 .

Garage and kitchen are identical rectangles.

Area of kitchen = 60m^2 .

20m

4m

?

4m

I know the ends of the garage and kitchen are 4m.

$$4\text{m} + 4\text{m} + ? = 20\text{m}$$

$$? = 12\text{m}$$

The living room is a square.

$$12 \times 12 = 144$$

Area of ~~garage~~ living room = 144m^2 .

15m

12m

?

As the living room is a square, all lengths are 12m.

$$12\text{m} + ? = 15\text{m} \quad ? = 3\text{m}$$

Hallway: $12 \times 3 = 36$.

Area of hallway = 36m^2 .

Total area of house = $20\text{m} \times 15\text{m} = 300\text{m}^2$.