

Three rabbits

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The Busy Lizzie Maths Library

Three rabbits

Bill has three rabbits.

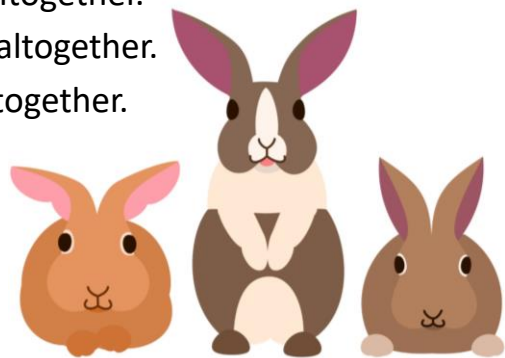
Each rabbit is a different weight.

The first and second rabbits weigh 6kg altogether.

The second and third rabbits weigh 9kg altogether.

The third and first rabbits weigh 11kg altogether.

What is the weight of each rabbit?



Three rabbits

$$R1 + R2 = 6\text{kg}$$

$$R2 + R3 = 9\text{kg}$$

$$R3 + R1 = 11\text{kg}$$

or

$$a + b = 6\text{kg}$$

$$b + c = 9\text{kg}$$

$$c + a = 11\text{kg}$$

Whatever way you decide to use the information the table lists twice as many rabbits as you need. Remember Bill only has three rabbits.

Three rabbits

The total of the three combined weights is 26kg but remember this is twice as much as you need. You will have to divide the 26kg by 2, effectively halving the amount to give you the total of three rabbits.

Three rabbits, rabbit 1 + rabbit 2 + rabbit 3 will equal 13kg.

$$a + b = 6\text{kg} \text{ therefore } c \text{ must be } 13\text{kg} - 6\text{kg} = 7\text{kg}$$

$$b + c = 9\text{kg} \text{ therefore } a \text{ must be } 13\text{kg} - 9\text{kg} = 4\text{kg}$$

$$c + a = 11\text{kg} \text{ therefore } b \text{ must be } 13\text{kg} - 11\text{kg} = 2\text{kg}$$