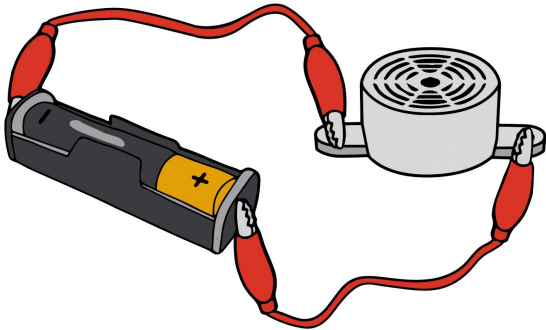


# Knowledge catcher: Circuits, batteries and switches

Some pupils wanted to investigate how the number of cells affects the volume of a buzzer. They use a cell, some wires, a buzzer and a data logger that measures volume in decibels. The results table is below:



Number of cells	Volume of buzzer (decibels)			
	Test 1	Test 2	Test 3	Mean average
1	70	71	72	71
2	77	76	78	
3	84	81	85	83.3

1

Draw a circuit diagram for the drawing shown above.

2

Draw another circuit diagram showing a greater voltage.

3

Give one example of a control variable for this experiment.

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4

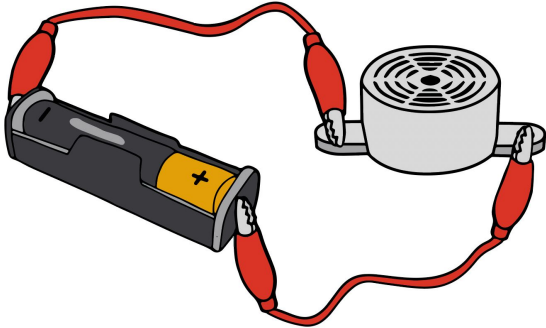
Work out the missing mean average in the results table and write it in.

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# Knowledge catcher: Circuits, batteries and switches

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**5** Describe the relationship (link) observed using the results in the table.

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**6** Describe another way to change the volume of the buzzer.

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**7** What effect would adding a switch to the circuit have?

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