

The equation $x^2 + 2x = 30$

has a solution between 4 and 5.

Use a trial and improvement method to find this solution.
Give your answer correct to one decimal place.

You must show all your working.

The equation $x^2 + 5x = 60$

has a solution between 5 and 6

Use a trial and improvement method to find this solution.
Give your answer correct to one decimal place.

You must show all your working.



The equation $x^3 + 3x = 25$

has a solution between 2 and 3

Use a trial and improvement method to find this solution.
Give your answer correct to one decimal place.

You must show all your working.

The equation $x^3 - 6x = 70$

has a solution between 4 and 5

Use a trial and improvement method to find this solution.
Give your answer correct to one decimal place.

You must show all your working.

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The equation $x^2 + 4x + 6 = 30$

has a solution between 3 and 4

Use a trial and improvement method to find this solution.

Give your answer correct to one decimal place.

You must show all your working.

The equation $x^3 - 4x + 1 = 60$

has a solution between 4 and 5

Use a trial and improvement method to find this solution.

Give your answer correct to one decimal place.

You must show all your working.

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The diagram shows a cuboid.

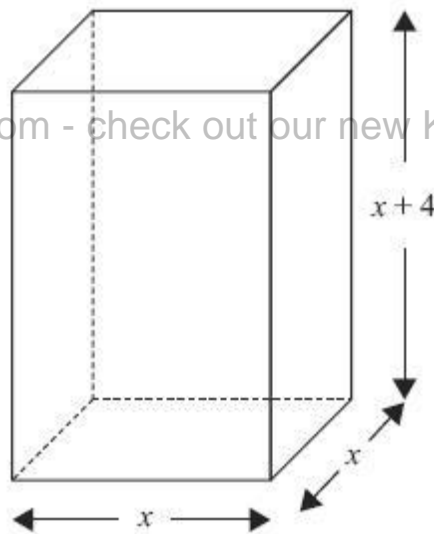


Diagram NOT accurately drawn

A cuboid has a square base of side x cm.

The height of the cuboid is $(x + 4)$ cm.

The volume of the cuboid is 160 cm^3 .

(a) Show that $x^3 + 4x^2 = 160$

The equation $x^3 + 4x^2 = 160$ has a solution between 4 and 5

(b) Use a trial and improvement method to find this solution. Give your answer correct to one decimal place. You must show ALL your working.