

Algebra - Trial and Improvement

The equation

$$x^3 + 2x = 60$$

has a solution between 3 and 4

Use a trial and improvement method to find this solution.
Give your answer correct to 1 decimal place.
You must show all your working.

(Total 4 marks)

Algebra - Trial and Improvement

The equation

$$x^3 + 2x = 60$$

has a solution between 3 and 4

Use a trial and improvement method to find this solution.
Give your answer correct to 1 decimal place.
You must show all your working.

(Total 4 marks)

x	$x^3 + 2x$
3.5	$3.5^3 + 2 \times 3.5 = 49.875$
3.7	$3.7^3 + 2 \times 3.7 = 58.053$
3.8	$3.8^3 + 2 \times 3.8 = 62.472$
3.75	$3.75^3 + 2 \times 3.75 = 60.234$

$$\underline{x = 3.7 \text{ to 1 decimal place}}$$