

GCSE TOPIC BOOKLET TRIAL AND IMPROVEMENT $a^2 = b^2 + c^2$

1.	A solution	to the e	guation
	, , , , , , , , , , , , , , , , , , , ,		9 44 4 5 5 5 1

$$x^3 + 2x = 7$$

lies between 1 and 2. Use the method of trial and improvement to find this solution
correct to one decimal place.
(4)
A solution to the equation
2 . 6 . 60 . 0
$x^3 + 6x - 60 = 0$
lies between 3 and 4. Use the method of trial and improvement to find this solution
correct to one decimal place.

3.	A solution to the equation
J.	A solution to the equation

$$x^3 + 5x - 30 = 0$$

lies between 2 and 3. Use the method of trial and improvement to find this solution
correct to one decimal place.
(4
A solution to the equation
$2x^3 - 3x - 17 = 0$
2x - 3x - 17 = 0
lies between 2 and 3. Use the method of trial and improvement to find this solution
correct to one decimal place.

5.	A solution to the equation	
5.	A solution to the equation	

$$x^3 - 6x - 3 = 0$$

lies between 2.6 and 2.7. Use the method of trial and improvement to find this
solution correct to two decimal places.
(4)
(4)
A solution to the equation
$x^3 - 5x + 2 = 0$
lies between 0.4 and 0.5. Use the method of trial and improvement to find this
solution correct to two decimal places.

7.	A solution	to the	equation
----	------------	--------	----------

$$x^3 - 5x - 66 = 0$$

lies between 4.4 and 4.5. Use the method of trial and improvement to find this
solution correct to two decimal places.
(4)
A solution of the equation
$x^3 + 3x - 50 = 0$
$x^2 + 3x - 50 = 0$
lies between 3.4 and 3.5. Use the method of trial and improvement to find this
solution correct to two decimal places.

The length of the rectangle below is 2cm longer than the width.		
The area of the rectangle is 70 cm ² .		
Use the method of trial and improvement to find the width, correct to one decimal		
place.		
Diagram not drawn to scale		
	(5)	

Jade entered a number into her calculator.

To this number, she added the square of the original number and the cube of the
original number.
Jade got the answer 432.288
Find the number that jade first entered into her calculator. Show all your working

(4)