

TRIAL AND IMPROVEMENT

Name: _____

Assessment Criteria: Use systematic trial and improvement methods and ICT tools to find approximate solutions to equations such as $x^3 + x = 20$

You will need to have access to a computer with a spreadsheet facility for this task

1. Complete the table to find a solution for this equation to one decimal place:

$$m^2 + 4m = 45$$

m	m ²	4m	m ² + 4m	Conclusion
2	4	8	12	Too small
8				

A solution of $m^2 + 4m = 45$ is $m =$ _____ to one decimal place

2. Using a similar approach, find a solution for the following equation:

$$x^3 - 2x = 10$$

A solution of $x^3 - 2x = 10$ is $x =$ _____ to one decimal place

3. Use a spreadsheet to carry out the process for question 2. Attach a printout to this sheet to show how you did it.

Overall, I think my success level is:

Low High

Q	TRIAL AND IMPROVEMENT	☺	☹
	I can use a trial and improvement method to work towards a solution for an equation such as $x^3 + x = 20$		
	I can use a trial and improvement method to find the solution to one or two decimal places		
	I can set up a spreadsheet to carry out the trials		
	<i>I can solve problems and carry through substantial tasks by breaking them into smaller, more manageable tasks, using a range of efficient techniques, methods and resources, including ICT; give solutions to an appropriate degree of accuracy</i>		
I need to practise ...			