In the style of:
Edexcel GCSE

Centre Number

Candidate Number

Mathematics A

Trial and Improvement

Higher Tier

Past Paper Style Questions
Arranged by Topic

Paper Reference
1MA0/2H

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- **Calculators may be used.**

Information

- The total mark for this paper is 100
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

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1. The equation

$$x^3 + 20x = 73$$

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.

$x =$ ....

(Total 4 marks)

2. The equation

$$x^3 - x = 29$$

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.

$x = $ ....

(Total 4 marks)

3. The equation

$$x^3 + 10x = 24$$

has a solution between 1 and 2

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

$x = $ ....

(Total 4 marks)

4. The equation

$$x^3 + 10x = 50$$

has a solution between 2 and 3
Use a trial and improvement method to find this solution.
Give your answer correct to 1 decimal place.
You must show **all** your working.

$x =$ ....

(Total 4 marks)

5. The equation

$$x^3 + 5x = 66$$

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.

$x =$ ....

(Total 4 marks)

6.   The equation

$$2x^3 - x = 80$$

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.

$x =$ ....

(Total 4 marks)

7.   The equation

$x^3 + 2x = 78$

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.

$x =$ ....

(Total 4 marks)

8.   The equation $x^3 + 3x = 41$

     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.

                                                        $x = $ ....

                                                        (Total 4 marks)

9. The equation
$$x^3 - 6x = 72$$

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.

$x = $ ....

(Total 4 marks)