

Name

ANSWERS

Class



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Types of graph

(9 – 1) Topic booklet

Foundation

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

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.*
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- If the question is a **1F** question you are not allowed to use a calculator.
- If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

Information

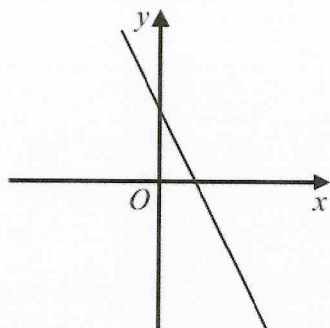
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

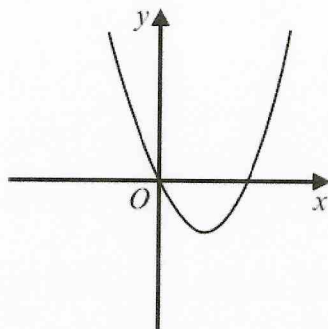
- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Answer ALL questions
Write your answers in the space provided.
You must write down all the stages in your working.

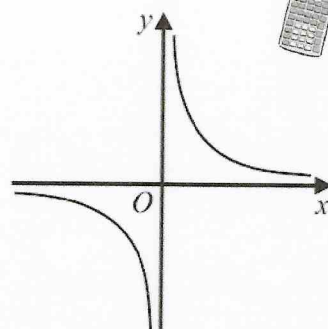
28 Here are five graphs.



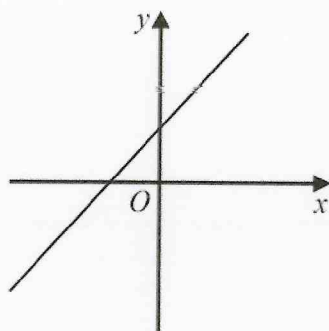
A



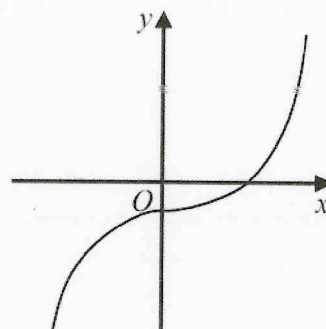
B



C



D



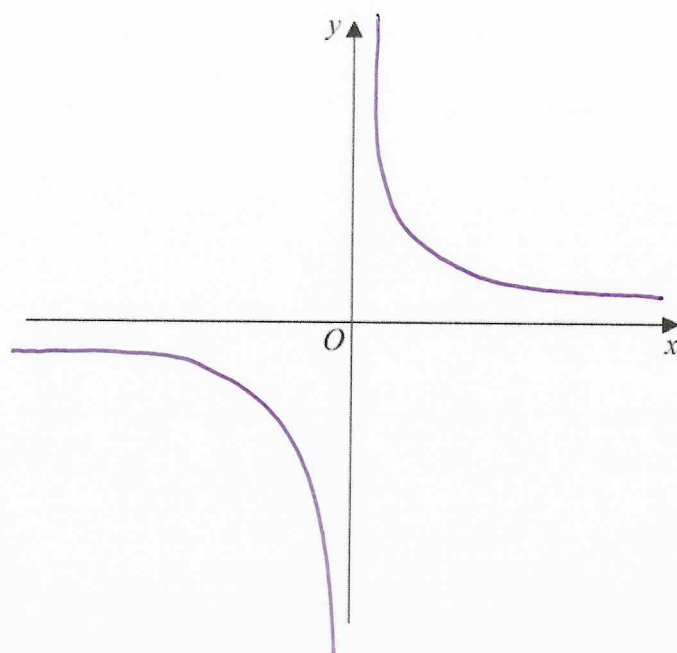
E

The table shows the equations of these graphs.

Equation	Graph
$y = x^2 - 4x$	B
$y = x + 3$	D
$y = x^3 - 2$	E
$y = \frac{1}{x}$	C
$y = 5 - 2x$	A

Match the letter of each graph with its equation.

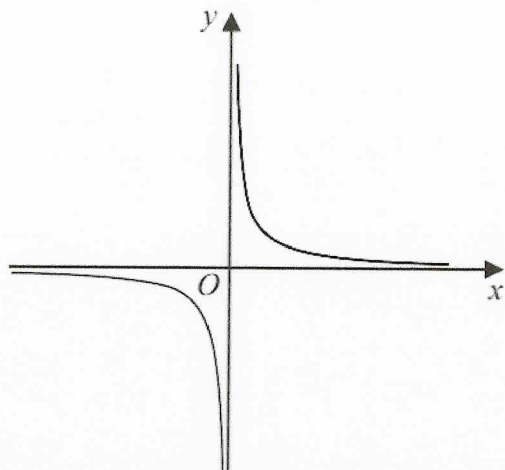
28 Sketch the graph of $y = \frac{1}{x}$



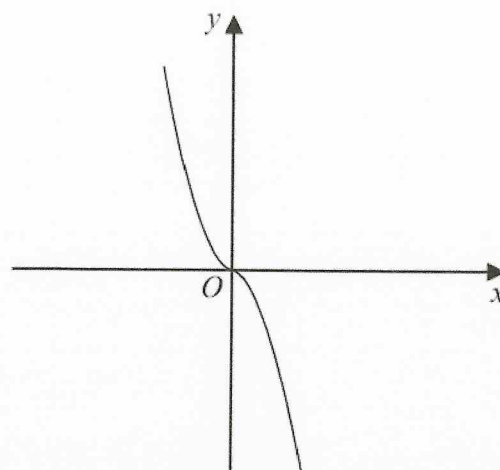
November 2021 – Paper 3F

(Total for Question 28 is 2 marks)

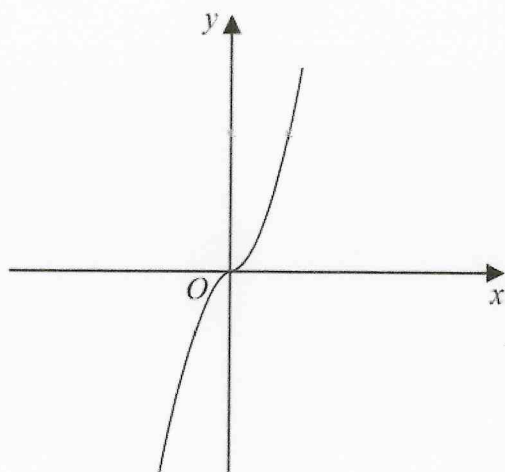
22 The diagram shows four graphs.



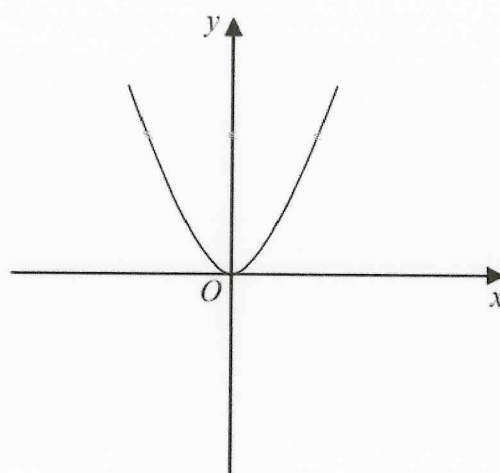
Graph A



Graph B



Graph C



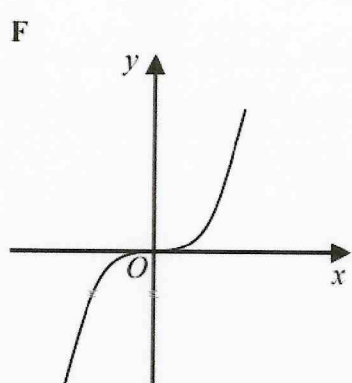
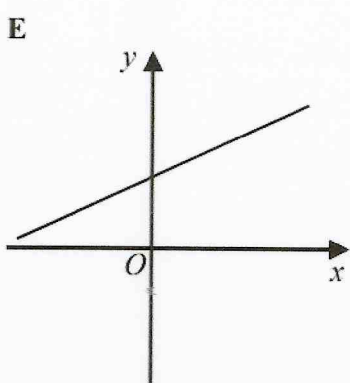
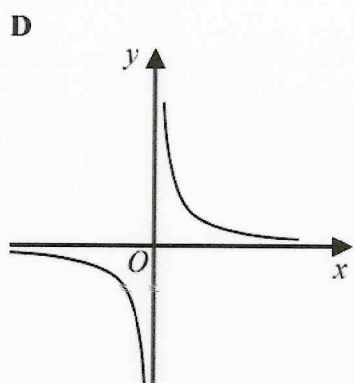
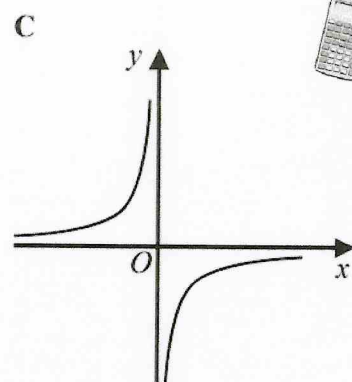
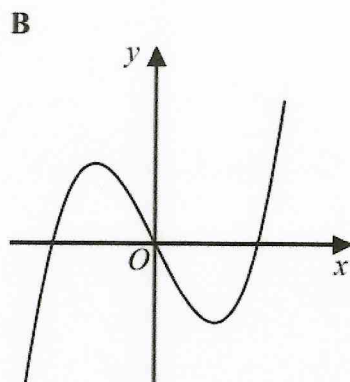
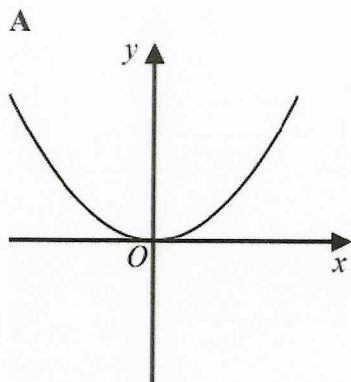
Graph D

Each of the equations in the table is the equation of one of the graphs.

Complete the table.

Equation	Letter of graph
$y = -x^3$	B
$y = x^3$	C
$y = x^2$	D
$y = \frac{1}{x}$	A

25 Here are six graphs.



Write down the letter of the graph that could have the equation

(a) $y = x^3$

F

(1)

(b) $y = \frac{1}{x}$

D

(1)