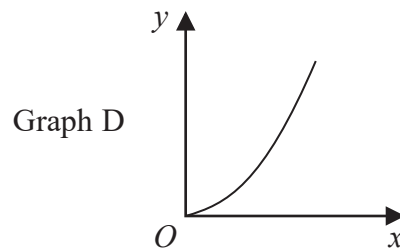
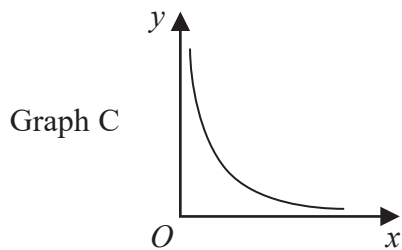
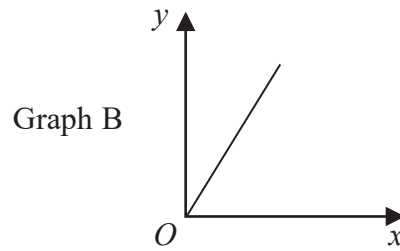
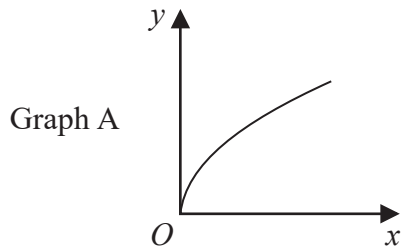


1



The graphs of y against x represent four different types of proportionality.

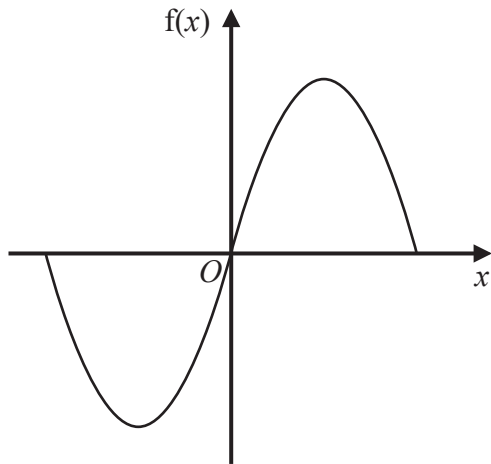
Match each type of proportionality in the table to the correct graph.

Type of proportionality	Graph letter
$y \propto x$	
$y \propto x^2$	
$y \propto \sqrt{x}$	
$y \propto \frac{1}{x}$	

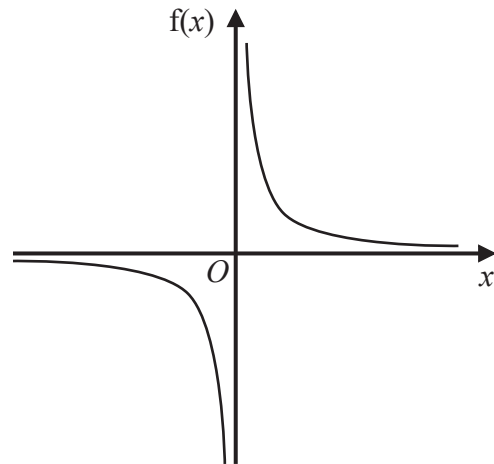
(Total for Question 1 is 2 marks)

2 Here are four graphs.

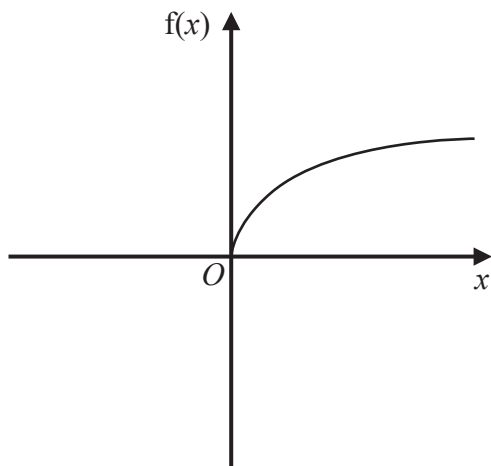
Graph A



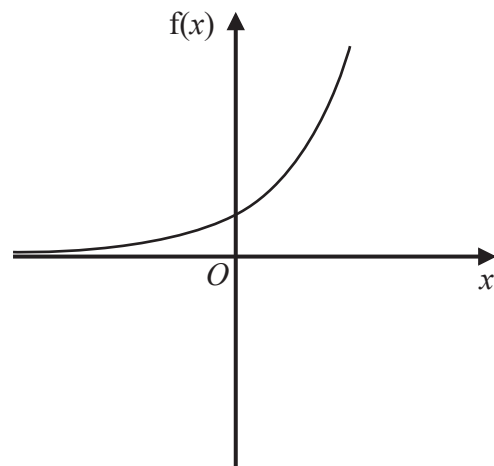
Graph B



Graph C



Graph D



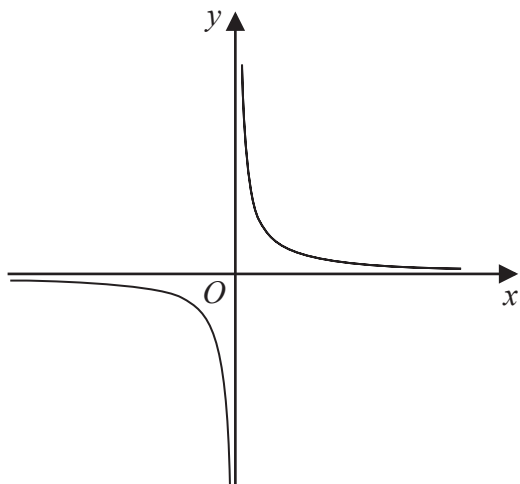
The graphs represent four different types of function f .

Match each description of the function in the table to the letter of its graph.

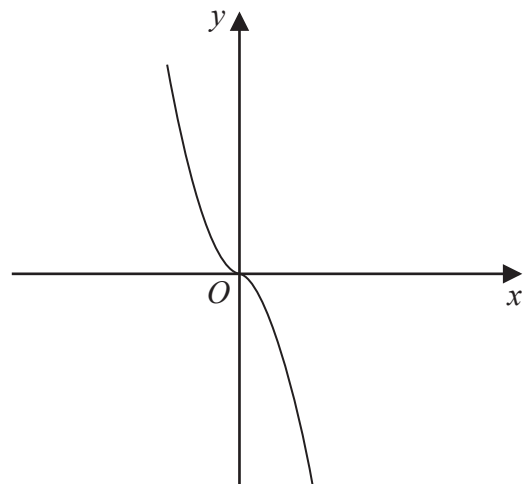
Description of function	Graph
$f(x)$ is inversely proportional to x	
$f(x)$ is a trigonometrical function	
$f(x)$ is an exponential function	
$f(x)$ is directly proportional to \sqrt{x}	

(Total for Question 2 is 2 marks)

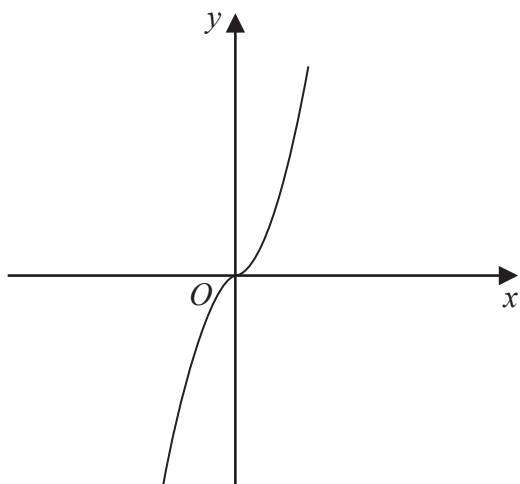
3 The diagram shows four graphs.



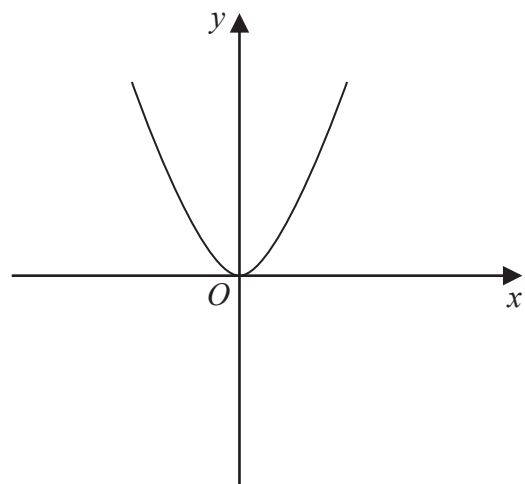
Graph A



Graph B



Graph C



Graph D

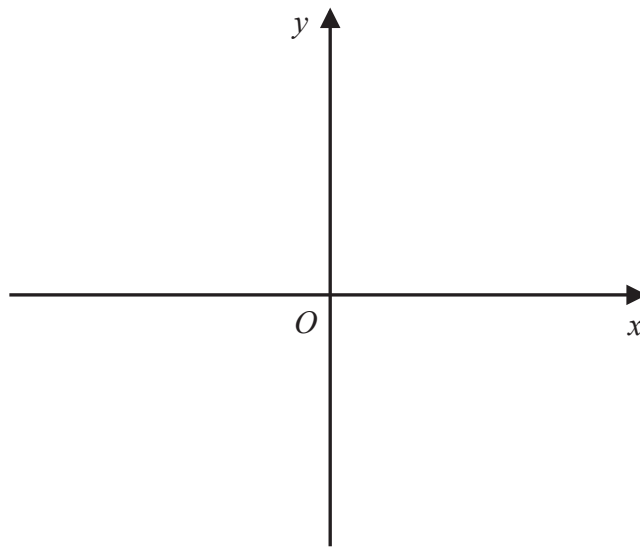
Each of the equations in the table is the equation of one of the graphs.

Complete the table.

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

(Total for Question 3 is 2 marks)

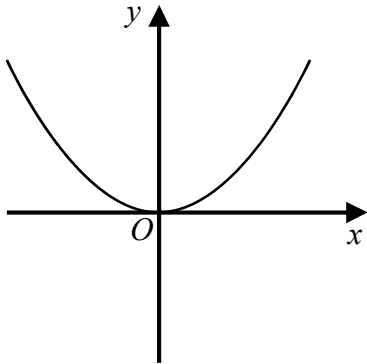
- 4 On the grid, sketch the curve with equation $y = 2^x$
Give the coordinates of any points of intersection with the axes.



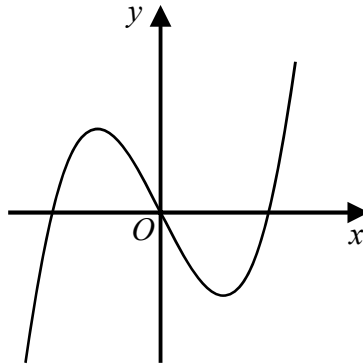
(Total for Question 4 is 2 marks)

5 Here are six graphs.

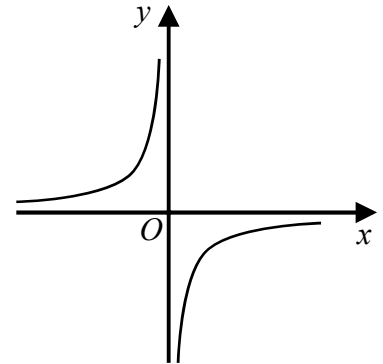
A



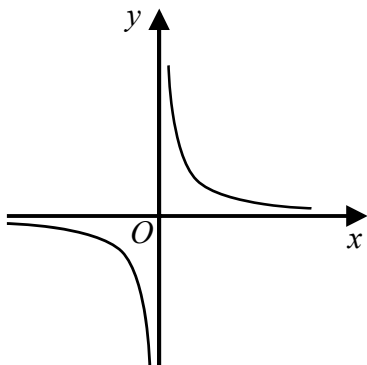
B



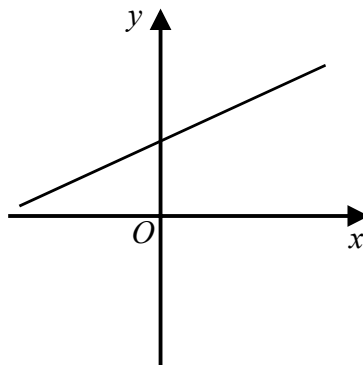
C



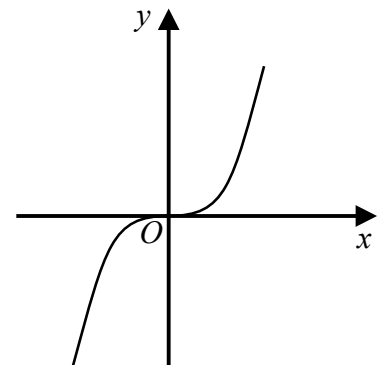
D



E



F



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

(a) $y = x^3$

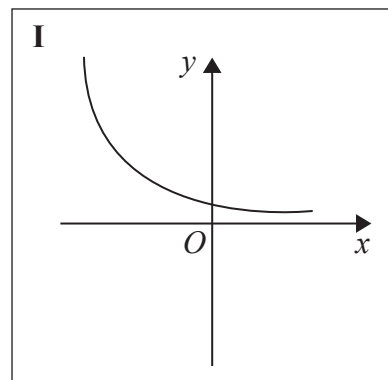
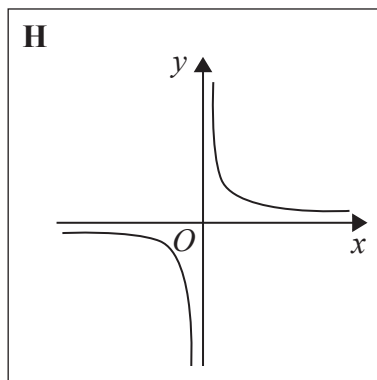
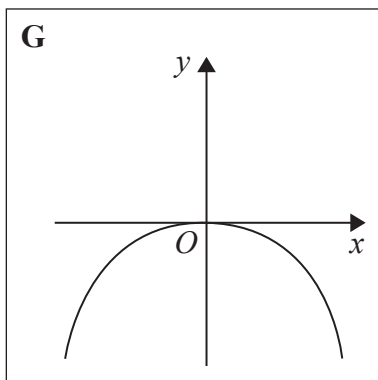
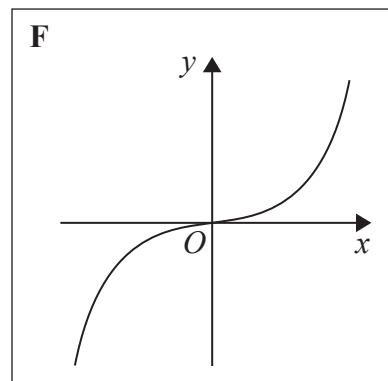
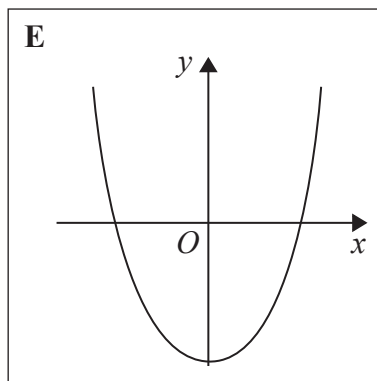
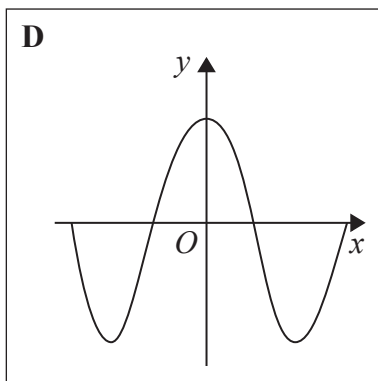
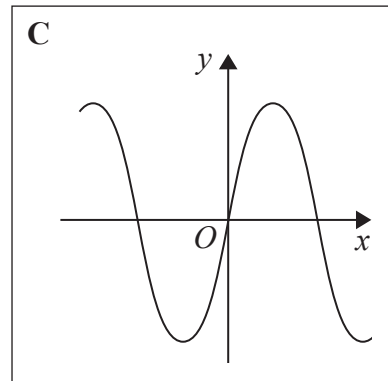
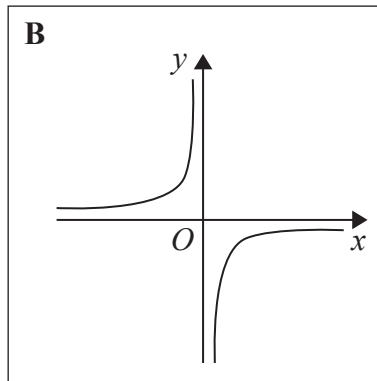
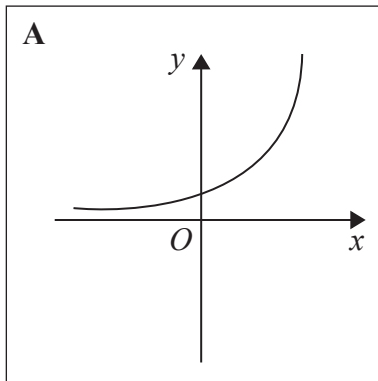
.....
(1)

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

.....
(1)

(Total for Question 5 is 2 marks)

6 Here are some graphs.



In the table below, match each equation with the letter of its graph.

Equation	Graph
$y = \sin x$	
$y = x^3 + 4x$	
$y = 2^x$	
$y = \frac{4}{x}$	

(Total for Question 6 is 3 marks)