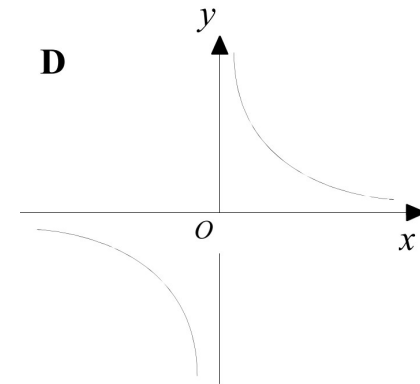
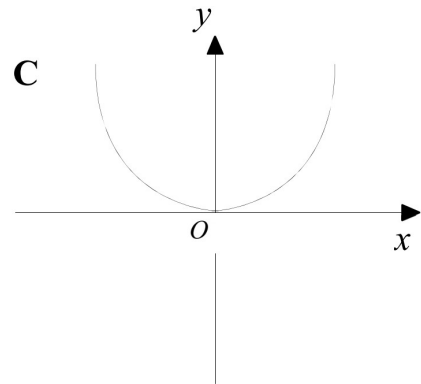
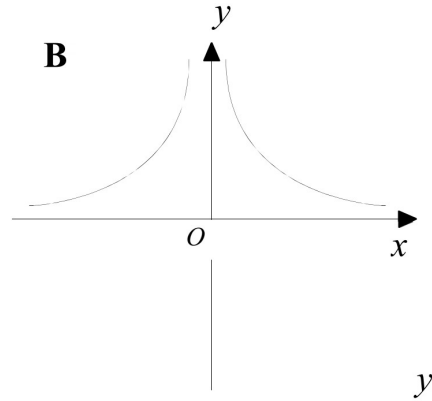
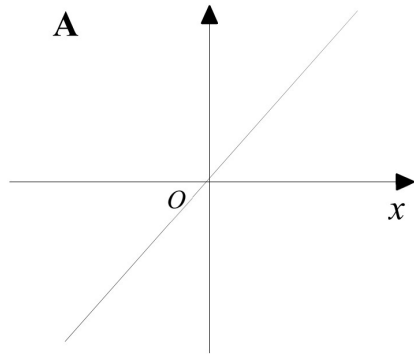


1 Here are four graphs.



Match each graph with one of the four statements below.

Proportionality relationship

y is directly proportional to x

y is inversely proportional to x

y is directly proportional to x^2

y is inversely proportional to x^2

(Total for question 1 is 2 marks)

2 a is directly proportional to b

When $a = 7, b = 28$

Find the value of b when $a = 5$

(Total for question 2 is 3 marks)

3 c is inversely proportional to d

When $c = 3, d = 8$

Find the value of c when $d = 2$

(Total for question 3 is 3 marks)

4 e is directly proportional to f

When $e = 3, f = 36$

Find the value of f when $e = 4$

(Total for question 4 is 3 marks)

5 g is directly proportional to the square root of h

When $g = 18, h = 16$

Find the possible values of h when $g = 2$

(Total for question 5 is 3 marks)

6 y is inversely proportional to x

When $y = 15, x = 4$

Find the value of y when $x = 12$

(Total for question 6 is 3 marks)

7 x is inversely proportional to the square root of y

When $x = 12$, $y = 9$

Find the value of x when $y = 81$

(Total for question 7 is 3 marks)

8 y is inversely proportional to the cube of x

When $y = 250$, $x = 0.2$

Find the value of y when $x = 0.5$

(Total for question 8 is 3 marks)

9 x is directly proportional to the cube of y

When $x = 32$, $y = 0.4$

Find the value of y when $x = 256$

(Total for question 9 is 3 marks)

10 The table shows pairs of values for x and y

x	2	3
y	32	72

(i) Which of the following statements is correct?

$$y \propto x$$

$$y \propto x^2$$

$$y \propto x^3$$

(ii) Write a formula for y in terms of x

(Total for question 10 is 4 marks)

11 The table shows pairs of values for x and y

x	4	5
y	256	500

(i) Which of the following statements is correct?

$$y \propto x$$

$$y \propto x^2$$

$$y \propto x^3$$

(ii) Write a formula for y in terms of x

(Total for question 11 is 4 marks)