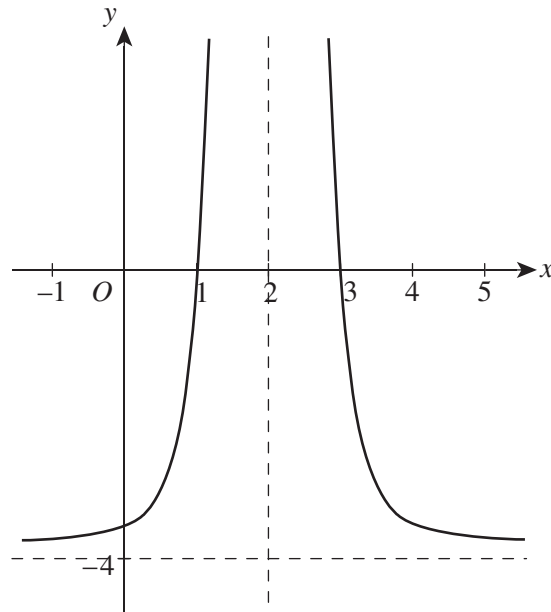


Question 6

Consider the function shown below.



The equation of the function is

- A. $y = \frac{3}{(x-2)} - 4$
- B. $y = \frac{3}{(x-4)} - 2$
- C. $y = \frac{4}{(x-2)^2} - 2$
- D. $y = \frac{3}{(x-2)^2} - 4$
- E. $y = -\frac{3}{(x-2)^2} - 4$

Question 7

The centre and radius of the circle $x^2 + y^2 - 10x + 4y = -25$ are, respectively

- A. (5, 2) and 5.
- B. (-5, 2) and 5.
- C. (5, -2) and 5.
- D. (5, -2) and 4.
- E. (5, -2) and 2.

- v. If the first marble selected is green, what is the probability that the second marble selected is green? 1 mark

c. All the marbles are now removed from the box and lined up in a row.

- i. How many different possible combinations could be made? 1 mark

- ii. If the red marbles must be grouped together, how many different possible combinations could be made? 2 marks

- iii. If the marbles must be grouped together based on colour, how many different possible combinations can be made? 1 mark

d. A new set of twelve marbles is placed in the box. The marbles are all different colours. Five marbles are randomly selected.

- i. How many combinations could be made? 1 mark

- ii. If one marble must be red and one marble must be green, how many combinations can be made? 1 mark

END OF QUESTION AND ANSWER BOOKLET