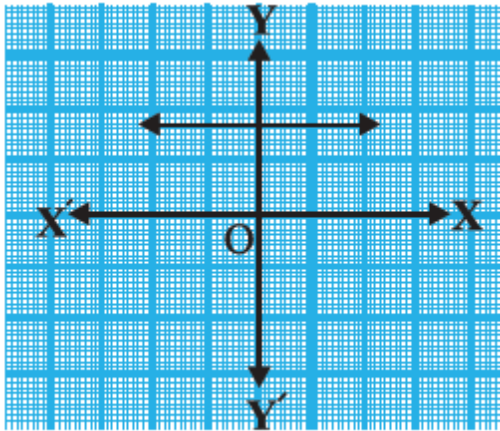
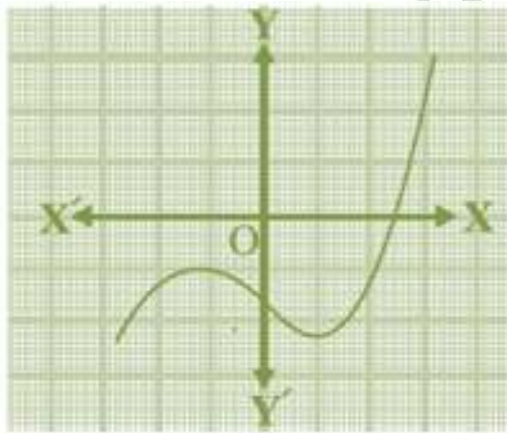


# Polynomial Exercise 1

The graphs of  $y = p(x)$  are given below, for some polynomials  $p(x)$ . Find the number of zeroes of  $p(x)$ , in each case.

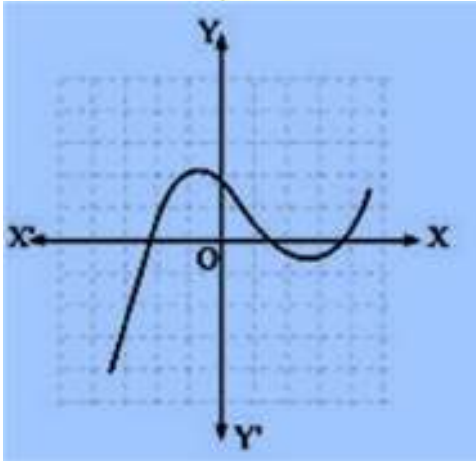


(i)

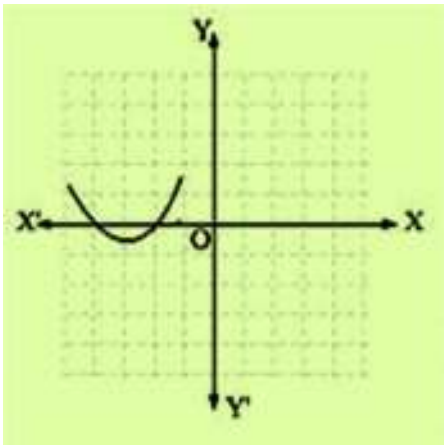


(ii)

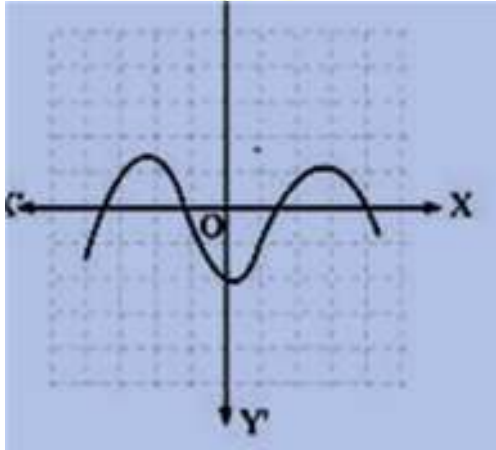
iii)



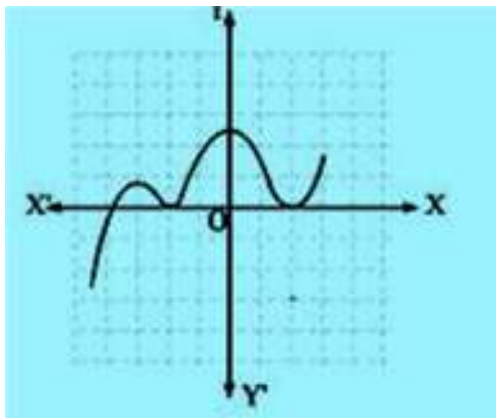
iv)



v)



vi)



**Solution:**

The zero's of the polynomial are the points where the graph meet x axis in the Cartesian plane. If the graph does not meet x axis ,then the polynomial does not have any zero's.

- i) Since it does not intersect x-axis ,it does not have any zero's
- ii) Since it intersect x-axis once ,it has one zero
- iii) Since it intersect the x-axis thrice, it has three zero's
- iv) Since it intersect the x-axis two ,it has two zero's

- v) Since it intersect the x-axis four times, it has four zero's
- vi) Since it intersect the x-axis thrice, it has three zero's

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