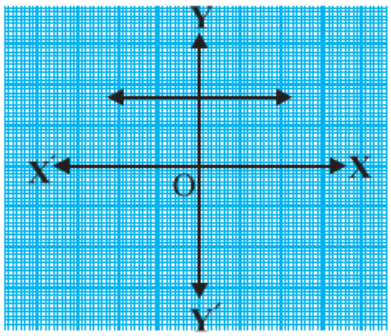
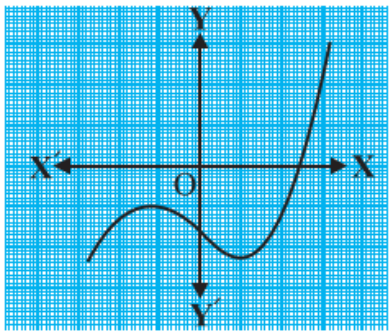
Polynomials: Exercise - 2.1

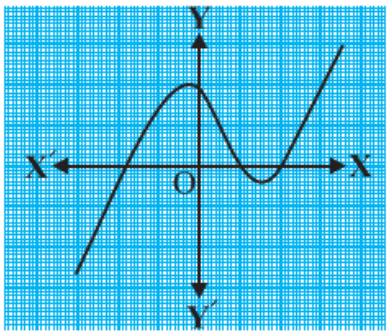
Q.1 The graphs of y = p(x) are given in figures below for some polynomials p(x). Find the number of zeroes of p(x), in each case.



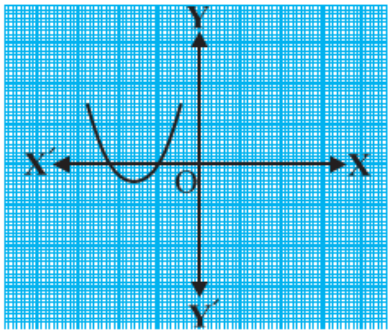
(i)



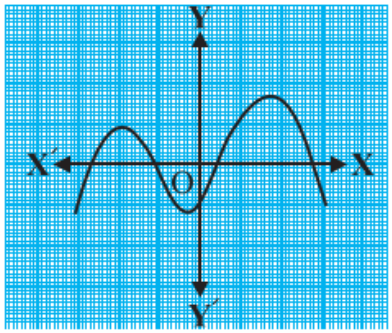
(ii)



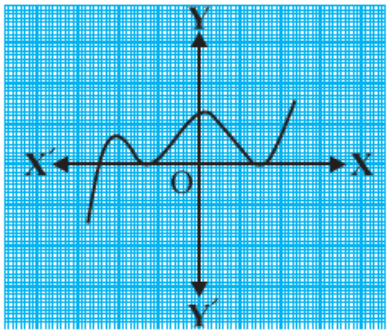
(iii)



(iv)



(v)



(vi)

Sol.

(i) In the given graph, there are no zeroes of p(x) because the graph does not intersect the x-axis.

(ii) In the given graph, the number of zeroes is one of p(x) because the graph intersects the x-axis at one point only.

(iii) In the given graph, the number of zeroes is three of p(x) because the graph intersects the x-axis at three points.

(iv) In the given graph, the number of zeroes is two of the p(x) because the graph intersects the x-axis at two points.

(v) In the given graph, the number of zeroes is four of p(x) because the graph intersects the x-axis at four points.

(vi) In the given graph, the number of zeroes is three of p(x) because the graph intersects the x-axis at three points.