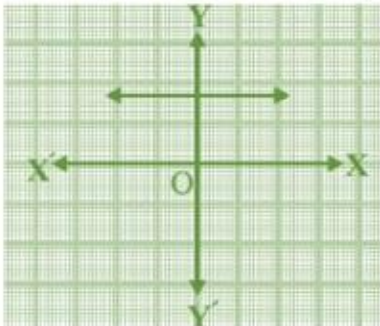


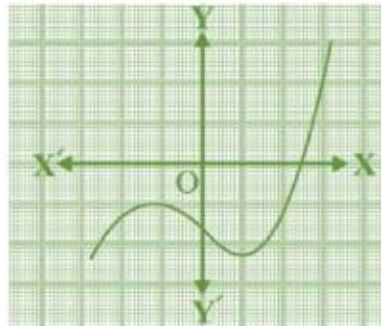
# Polynomials

## EXERCISE 2.1

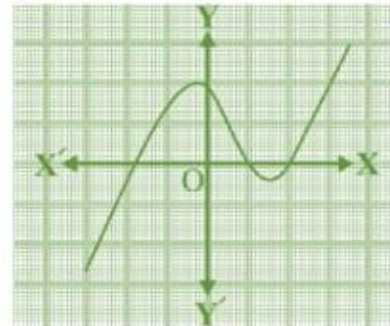
1. The graphs of  $y = p(x)$  are given in following figure, for some polynomials  $p(x)$ . Find the number of zeroes of  $p(x)$ , in each case.



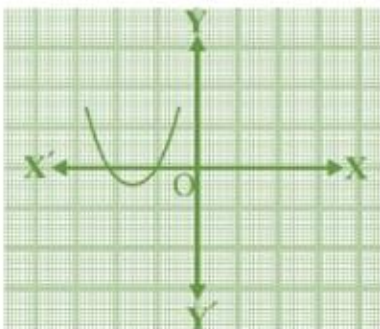
(i)



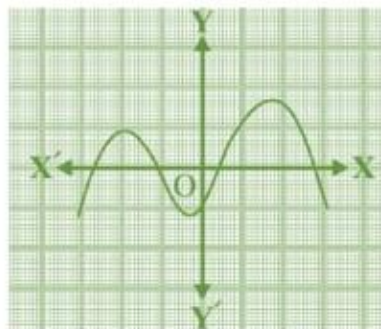
(ii)



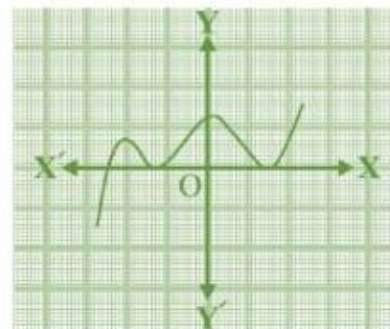
(iii)



(iv)



(v)



(vi)

### ANSWERS:

- i. The number of zeroes is 0 as the graph does not cut the x-axis at any point.
- ii. The number of zeroes is 1 as the graph intersects the x-axis at only 1 point.
- iii. The number of zeroes is 3 as the graph intersects the x-axis at 3 points.
- iv. The number of zeroes is 2 as the graph intersects the x-axis at 2 points.
- v. The number of zeroes is 4 as the graph intersects the x-axis at 4 points.
- vi. The number of zeroes is 3 as the graph intersects the x-axis at 3 points.