## Exercises 2.1 (Polynomials)

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)



Solution (i) The number of zeroes is 0 as the graph does not cut the $x$-axis at any point.
(ii)



Solution (ii) :- The number of zeroes is 1 as the graph intersects the $x$-axis at only 1 point.
(iii)

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Solution (iii) :-The number of zeroes is 3 as the graph intersects the $x$-axis at 3 points.
(IV)


Solution (iv) :- The number of zeroes is 2 as the graph intersects the $x$-axis at 2 points.
(V) :-



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Solution (v) :- The number of zeroes is 4 as the graph intersects the $x$-axis at 4 points.
(VI)



Solution (vi) :- The number of zeroes is 3 as the graph intersects the $x$-axis at 3 points.

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