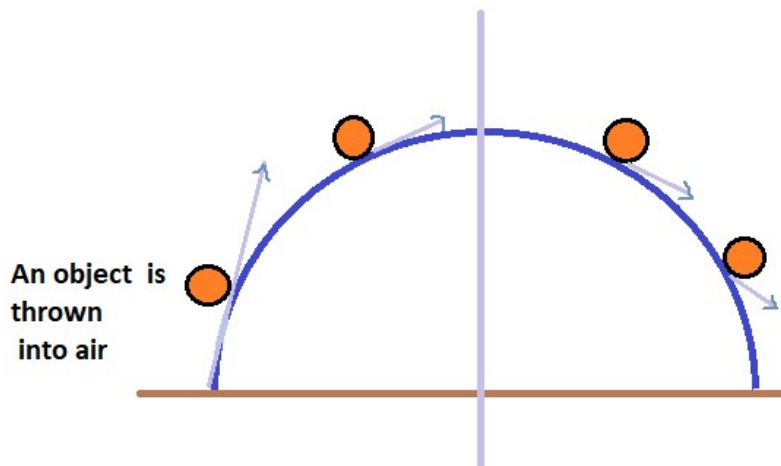




SATISH CHANDRA MEMORIAL SCHOOL

CLASS: IX (POLYNOMIALS) CASE STUDY

Application of Parabolas- Projectile motion:



An object which is thrown or projected into the air, subject to only the acceleration of gravity is called projectile and its path is called its trajectory. This curve path was shown by Galileo to be a parabola. Parabola is represented by a polynomial. If the polynomial to represent the distance covered is $p(t) = -5t^2 + 40t + 1.2$ then answer the following questions.

- i) What is the degree of the polynomial?
 - A. 0
 - B. 1
 - C. 3
 - D. 2
- ii) Find the height of the projectile 4 seconds after it is launched.
 - A. 80.2 m
 - B. 81.2 m
 - C. 81.8 m
 - D. 84 m
- iii) The polynomial is classified as _____ on the basis of number of terms.
 - A. Monomial
 - B. Binomial
 - C. Trinomial
 - D. None of these
- iv) What is the name of the polynomial in the basis of degree?
 - A. Quadratic
 - B. Cubic
 - C. Linear
 - D. None of these
- v) If the equation of parabola is given by, $p(t) = t^2 - 5t + 6$, then it's factors are:
 - A. (t-3)
 - B. (t-2)
 - C. Both A & B
 - D. None of these