

INTERNATIONAL INDIAN SCHOOL, RIYADH.
SAI WORKSHEET-2015-16

SUBJECT: Mathematics

STD: IX

POLYNOMIALS :

- 1 Find the zero of the polynomial $ax + b = 0$; $a \neq 0$.
- 2 Using remainder theorem check if $3x^4 - 4x^3 - 3x + 4$ is a multiple of $x - 1$.
- 3 If the polynomial $x^4 - 2x^3 + 3x^2 - ax + 8$ is divided by $x - 2$, it leaves the remainder 10 .
Find the value a .
- 4 If the polynomials $2x^3 + ax^2 + 3x - 5$ and $x^3 + x^2 - 4x + a$ leave the same remainder when divided by $x - 2$, Find the value of a .Also find the remainder in each case .
- 5 Examine if $4x + 5$ is a factor of the polynomial $4x^4 + 5x^3 - 12x^2 - 11x + 5$.
- 6 If $x + y = 10$ and $xy = 21$ find the value of $x^3 + y^3$.
- 7 Factorize
1) $7\sqrt{2}y^2 + 10y - 4\sqrt{2}$
2) $2(x - y)^2 + 9(x - y) - 5$
3) $x^6 - y^6$
4) $4x^3 + 20x^2 + 33x + 18$.
- 8 Find the value of the following using suitable identities .
1) 99.8^2 2) $(997)^3$ 3) $(1005)^3$
- 9 Factorise $(a - b)^3 + (b - c)^3 + (c - a)^3$