INDIAN SCHOOL NIZWA

MATHEMATICS WORKSHEET-3

CH-2 POLYNOMIALS

DATE: MAY CLASS :X

1. If α ,β are zeroes of the polynomial $f(x)=x^2-p(x+1)-c$, then $(\alpha+1)(\beta+1)=1-c$. Justify the validity of the above statement.
2. What must be subtracted from $8x^4+14x^3-2x^2+7x-8$, so that the resulting polynomial is exactly divisible by $4x^2+3x-2$.
3. Find the zeroes of the following polynomial and verify the relationship between the zeros and their coefficients. $g(x)=a(x^2+1)-x(a^2+1)$.
4. Obtain all zeroes of $f(x)=x^3+13x^2+32x+20$, if one of its zero is -2.
5. Form a cubic polynomial with zeroes 3 ,2 and -1.
6. If a and b are zeroes of the polynomial $2x^2+7x-3$, then the value of a^2+b^2 is
7. If the polynomial $6x^3+16x^2+px-5$ is exactly divisible by $3x+5$, then the value of p is
8. A quadratic polynomial whose product and sum of zeroes are 1/3 and $\sqrt{2}$ respectively is
9. Find all the zeroes of the polynomial $2x^3+x^2-6x-3$, if two of its zeroes are $-\sqrt{3}$ and $\sqrt{3}$.
10. If a, b are zeroes of the polynomial $x^2-2x-15$ then form a quadratic polynomial whose zeroes are (2a) and (2b).
11. Divide $30x^4+11x^3-82x^2-12x-48$ by $(3x^2+2x-4)$ and verify the result by division algorithm.
12. . If a, b are zeroes of the quadratic polynomial $p(x)=kx^2+4x+4$ such that $a^2+b^2=24$, find the value of k.