

WANDOOOR GANITHAM - S S L C UNIT TEST 2021

7.10BE

POLYNOMIALS

Total Score : 20

Time : 40 minutes

1. $p(x)$ is a second degree polynomial, $p(-2)=0, p(5)=0$ and the coefficient of x^2 is 1
- Write a factor of $p(x)$?
 - Write $p(x)$ as the product of two first degree polynomials ? (2)
2. Consider the polynomial $p(x)=x^2-5x+8$
- Find $p(3)$?
 - Find the number to be subtracted from $p(x)$ to get a polynomial for which $x-3$ is a factor ? (2)
3. Consider the polynomial $p(x)=lx^2-2mx+n$
- Find $p(1)$?
 - If $x-1$ is a factor of $p(x)$, prove that l, m, n are three consecutive terms of an arithmetic sequence ? (2)
4. Consider the polynomial $p(x)=x^2-7x+10$
- Find $p(2)$?
 - Check whether $x-5$ is a factor of $p(x)$ or not ?
 - Write $p(x)$ as the product of two first degree polynomials ? (3)
5. Consider the polynomial $p(x)=x^2-9x-k$
- Find $p(10)$?
 - What is the value of k if $x-10$ is a factor of $p(x)$?
 - Write $p(x)$ as the product of two first degree polynomials if one of its factor is $x-10$? (3)

6. Consider the polynomial $p(x) = x^2 - 9x + 20$

a) Find $p(2)$?

b) Write a factor of $p(x) - p(2)$?

c) Write $p(x) - p(2)$ as the product of two first degree polynomials ? (4)

7. If $x^2 - 15x + 36 = (x - a)(x - b)$

a) What is the value of $a + b$?

b) What is the value of ab ?

c) Write $x^2 - 15x + 36$ as the product of two first degree polynomials ? (4)

WANDOOR GANITHAM