ODM EDUCATIONAL GROUP
Changing your Tomorrow

POLYNOMIALS

PPT-6

SUBJECT : MATHEMATICS
CHAPTER NUMBER: 02
CHAPTER NAME : POLYNOMIALS

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Learning outcome

1. Students will be able to **know and find** the relationship between zeroes and coefficients of a cubic polynomial

2.. Students will be able to solve questions involving relationship between zeroes and coefficients of a cubic polynomial

PREVIOUS KNOWLEDGE TEST

1. sum of zeroes =- (Coefficient of x)/ Coefficient of x^2 =-b/a
2. product of zeroes = = Constant term/ Coefficient of x^2= c/a
3. A **quadratic polynomial** can have at most **2 zeroes** and **a cubic polynomia**l can have atmost **3 zeroes**
4. General form of linear polynomials $ax + b\ where\ a \neq 0$
5. General from of quadratic polynomials $ax^2 + bx + c$ where a≠O
6. General form of cubic polynomial$ax^3 + bx^2 + cx + d, where\ a \neq 0$

Division algorithm for polynomials

https://youtu.be/vs2GYsMn9vw (3.22)

- Quick revision of polynomiaql
- https://youtu.be/YmDnGcol-gs (10.06)
- Previous years questions
- https://youtu.be/F140P_dJbmo (12.02)

Divide the polynomial p(x) by the polynomial g(x) and find the quotient and remainder in the following : $P(x) = x^3 - 3x^2 + 5x - 3$, $g(x) = x^2 - 2$

(*i*) Here $p(x) = x^3 - 3x^2 + 5x - 3$; $g(x) = x^2 - 2$

dividing $p(x)$ by $g(x)$

$$
\begin{array}{r|l}
x^2 - 2 & x - 3 \\
\cline{2-2}
x^3 - 3x^2 + 5x - 3 & \\
\underline{-x^3 \quad +2x} & \\
-3x^2 + 7x - 3 & \\
\underline{-3x^2 \quad +6} & \\
7x - 9 &
\end{array}
$$

Quotient = $x - 3$, Remainder = $7x - 9$

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THANKING YOU

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