

Dividing, Multiplying, Addition Polynomial worksheet

Question 1)

Multiply below polynomials

- 1) $(x+1)(x^2 + 9x + 18)$
- 2) $(x-1)(3x^3 - 3x + 1)$
- 3) $(x^2 + x + 1)(23x^2 + 142x - 120)$
- 4) $(1 + 2x^3)x^2$

Question 2)

Add Following polynomials

- (i) $(15x^2 + 5x)$ and $(x + 6x^2 + 1)$
- (ii) $(x^2 + 7x + 12)$ and $(1 - x + x^2)$
- (iii) $[x(x - 1) + 16(x - 1)]$ and $[x(1 - x)]$

Question 3)

Divide the Polynomial $(x^3 + 4x^2 + 11x + 12)$ by $(x+1)$ By long division method

Question 4)

Divide the below polynomial by $x-1$

- a) $2x^3 - 3x^2 - 17x + 30$
- b) $3x^3 - x^2 - 3x + 1$
- c) $1 - 64x^3 - 12x + 48x^2$

Question 5)

By Remainder Theorem find the remainder, when $p(x)$ is divided by $g(x)$, where

- (i) $p(x) = x^3 - 2x^2 - 4x - 1$, $g(x) = x + 1$
- (ii) $p(x) = x^3 - 3x^2 + 5x + 1$, $g(x) = x - 3$
- (iii) $p(x) = 4x^3 - 12x^2 + 1$, $g(x) = x - 2$