

Solutions – Polynomial Long Division (A)

Divide $3x^3 + 6x^2 - 6x + 9$ by $x + 3$

$$3x^2 - 3x + 3$$

Divide $3x^3 - 6x^2 + 6x - 12$ by $x - 2$

$$3x^2 + 6$$

Divide $5x^3 - 20x^2 - 31x + 30$ by $x - 5$

$$5x^2 + 5x - 6$$

Solutions – Polynomial Long Division (B)

Divide $4x^3 + 17x^2 - x - 20$ by $x + 4$

$$4x^2 + x - 5$$

Divide $4x^3 - 14x^2 + 2x + 12$ by $x - 3$

$$4x^2 - 2x - 4$$

Divide $5x^3 - 10x^2 - 9x - 18$ by $x - 3$

$$5x^2 + 5x + 6$$

Solutions – Polynomial Long Division (C)

Divide $x^3 - 5x^2 - 6x$ by $x - 6$

$$x^2 + x$$

Divide $3x^3 + 9x^2 - 5x - 15$ by $x + 3$

$$3x^2 - 5$$

Divide $x^3 - 4x^2 + 3x$ by $x - 1$

$$x^2 - 3x$$

Solutions – Polynomial Long Division (D)

Divide $4x^3 + 12x^2 - 10x + 24$ by $x + 4$

$$4x^2 - 4x + 6$$

Divide $4x^3 + 18x^2 - 41x - 30$ by $x + 6$

$$4x^2 - 6x - 5$$

Divide $2x^3 - 3x^2 + 4x - 3$ by $x - 1$

$$2x^2 - x + 3$$

Solutions – Polynomial Long Division (E)

Divide $2x^3 + 16x^2 + 23x - 6$ by $x + 6$

$$2x^2 + 4x - 1$$

Divide $2x^3 - 13x^2 + 20x - 25$ by $x - 5$

$$2x^2 - 3x + 5$$

Divide $4x^3 - 14x^2 - 9x + 4$ by $x - 4$

$$4x^2 + 2x - 1$$

Solutions – Polynomial Long Division (F)

Divide $2x^3 + 7x^2 + 2x - 8$ by $x + 2$

$$2x^2 + 3x - 4$$

Divide $3x^3 + 22x^2 + 18x - 36$ by $x + 6$

$$3x^2 + 4x - 6$$

Divide $3x^3 + 8x^2 + 9x + 4$ by $x + 1$

$$3x^2 + 5x + 4$$

Solutions – Polynomial Long Division (G)

Divide $3x^3 + 2x^2 + 3x + 4$ by $x + 1$

$$3x^2 - x + 4$$

Divide $5x^3 - 7x^2 - 2x + 4$ by $x - 1$

$$5x^2 - 2x - 4$$

Divide $5x^3 + 2x^2 + 3x + 6$ by $x + 1$

$$5x^2 - 3x + 6$$

Solutions – Polynomial Long Division (H)

Divide $3x^3 - 9x^2$ by $x - 3$

$$3x^2$$

Divide $3x^3 - 12x^2 - 6x + 24$ by $x - 4$

$$3x^2 - 6$$

Divide $4x^3 - 27x^2 + 16x + 12$ by $x - 6$

$$4x^2 - 3x - 2$$

Solutions – Polynomial Long Division (I)

Divide $x^3 - 4x^2 + 4x - 3$ by $x - 3$

$$x^2 - x + 1$$

Divide $3x^3 - 12x^2 - 15x$ by $x - 5$

$$3x^2 + 3x$$

Divide $2x^3 + 2x^2 - 10x - 12$ by $x + 2$

$$2x^2 - 2x - 6$$

Solutions – Polynomial Long Division (J)

Divide $5x^3 - 29x^2 + 15x + 25$ by $x - 5$

$$5x^2 - 4x - 5$$

Divide $2x^3 + 12x^2 + 17x - 3$ by $x + 3$

$$2x^2 + 6x - 1$$

Divide $2x^3 - 5x^2 + 6x - 8$ by $x - 2$

$$2x^2 - x + 4$$