



Division of Algebraic Expressions Ex 8.4 Q17

Answer :

$$\begin{array}{r} 3x^2 + 4x + 1 \\ 2x - 3 \overline{) 6x^3 - x^2 - 10x - 3} \\ \underline{6x^3 - 9x^2} \\ 8x^2 - 10x - 3 \\ \underline{8x^2 - 12x} \\ 2x - 3 \\ \underline{2x - 3} \\ 0 \end{array}$$

$$\text{Quotient} = 3x^2 + 4x + 1$$

$$\text{Remainder} = 0$$

Division of Algebraic Expressions Ex 8.4 Q18

Answer :

$$\begin{array}{r} 2x - 5 \\ 3x^2 + 13x + 13 \overline{) 6x^3 + 11x^2 - 39x - 65} \\ \underline{6x^3 + 26x^2 + 26x} \\ -15x^2 - 65x - 65 \\ \underline{-15x^2 - 65x - 65} \\ 0 \end{array}$$

$$\text{Quotient} = 2x - 5$$

$$\text{Remainder} = 0$$

Division of Algebraic Expressions Ex 8.4 Q19

Answer :

$$\text{Quotient} = 10x^2 - 3x - 12$$

$$\text{Remainder} = 0$$

$$\begin{array}{r} 10x^2 - 3x - 12 \\ 3x^2 + 2x - 4 \overline{) 30x^4 + 11x^3 - 82x^2 - 12x + 48} \\ \underline{30x^4 + 20x^3 - 40x^2} \\ -9x^3 - 42x^2 - 12x + 48 \\ \underline{-9x^3 - 6x^2 + 12x} \\ -36x^2 - 24x + 48 \\ \underline{-36x^2 - 24x + 48} \\ 0 \end{array}$$

Division of Algebraic Expressions Ex 8.4 Q20

Answer :

$$\begin{array}{r} 3x^2 + 4x + 2 \\ 3x^2 - 4x + 2 \overline{) 9x^4 - 4x^2 + 4} \\ \underline{9x^4 + 6x^2 - 12x^3} \\ 12x^3 - 10x^2 + 4 \\ \underline{12x^3 - 16x^2 + 8x} \\ 6x^2 - 8x + 4 \\ \underline{6x^2 - 8x + 4} \\ 0 \end{array}$$

\therefore Quotient = $3x^2 + 4x + 2$ and remainder = 0.

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