

HW87

Long Division - Answers

1. $(x+5) + \frac{21}{x-3}$

2. $(2x^2+2x-5) + \frac{4}{2x+1}$

3. $x+2$

4. $(3x^2+x-3) - \frac{5}{x+3}$

5. $(5x^2-x-2) + \frac{3x+2}{x^2+x+1}$

6. $(6x^4 - 4x^3 - 18x^2 + 20x + 54) + \frac{-62x - 161}{x^2 + 3}$

7. No, Rem = 69

8. No, Rem = 5

9. Yes

10. No, Rem = -83

2.
$$\begin{array}{r} 2x^2 + 2x - 5 \\ 2x + 1 \overline{) 4x^3 + 6x^2 - 8x - 1} \\ \underline{- 4x^3 + 2x^2} \\ 4x^2 - 8x \\ \underline{- 4x^2 + 2x} \\ 10x - 1 \\ \underline{- 10x - 5} \\ 4 \end{array}$$

$(2x^2 + 2x - 5) + \frac{4}{2x+1}$

8.
$$\begin{array}{r} 9x + 2 \\ x - 1 \overline{) 9x^2 - 7x + 3} \\ \underline{- 9x^2 + 9x} \\ 2x + 3 \\ \underline{- 2x - 2} \\ 5 \end{array}$$

No, remainder is 5