

Functions F5.5 – Dividing Polynomials 2

Find the Quotient (No remainder)

$$1. \quad 2x + 3 \overline{) 6x^3 + 13x^2 + 8x + 3}$$

$$2. \quad \frac{x^3 + 2x - 3}{x - 1}$$

$$3. \quad x + 4 \overline{) x^3 + 6x^2 + 4x - 16}$$

$$4. \quad x - 2 \overline{) 3x^4 + 4x^3 - 8x^2 + 9x^2 - 13x + 6}$$

$$5. \quad 1 + 2x \overline{) 2x^4 - 7x^3 - 8x^2 + 4x + 3}$$

$$6. \quad \frac{-5x^3 + 4x^2 + x - 15}{x^2 - 2x + 3}$$

$$7. \quad \frac{x^4 - 2x^3 - x^2 + 10x - 8}{(x + 2)(x - 1)} \quad (\text{Hint: Use division twice})$$