

Homework #20

Answers

From Houghton-Mifflin Precalculus

3rd Edition

p170:

$$8) \quad x - 4 \overline{) 5x^2 - 17x - 12}$$

$$\underline{5x^2 - 20x}$$

$$3x - 12$$

$$\underline{3x - 12}$$

$$0$$

$$\text{Ans: } 5x + 3$$

$$10) \quad x + 2 \overline{) x^3 + 3x^2 + 0x - 1}$$

$$\underline{x^4 + 5x^3 + 6x^2 - x - 2}$$

$$\underline{x^4 + 2x^3}$$

$$3x^3 + 6x^2$$

$$\underline{3x^3 + 6x^2}$$

$$-x - 2$$

$$\underline{-x - 2}$$

$$0$$

$$\text{Ans: } x^3 + 3x^2 - 1$$

$$9) \quad 4x + 5 \overline{) x^2 - 3x + 1}$$

$$\underline{4x^3 - 7x^2 - 11x + 5}$$

$$\underline{4x^3 + 5x^2}$$

$$-12x^2 - 11x$$

$$\underline{-12x^2 - 15x}$$

$$4x + 5$$

$$\underline{4x + 5}$$

$$0$$

$$\text{Ans: } x^2 - 3x + 1$$

$$13) \quad 2x^2 + 1 \overline{) 3x + 5}$$

$$\underline{6x^3 + 10x^2 + x + 8}$$

$$\underline{6x^3 + 0x^2 + 3x}$$

$$10x^2 - 2x + 8$$

$$\underline{10x^2 + 0x + 5}$$

$$-2x + 3$$

$$\text{Ans: } 3x + 5 + \frac{-2x + 3}{2x^2 + 1}$$

$$14) \quad x^2 + 1 \overline{) x}$$

$$\underline{x^3 + 0x^2 + 0x - 9}$$

$$\underline{x^3 + 0x^2 + x}$$

$$-x - 9$$

$$\text{Ans: } x + \frac{-x - 9}{x^2 + 1}$$