Divide.

7) $\dfrac{2x^2 + 10x + 12}{x + 3}$

17) $\dfrac{x^4 + 3x^2 + 1}{x^2 - 2x + 3}$

29) $\dfrac{5x^3 - 6x + 8}{x - 4}$

<u>Remainder Theorem</u> -

$$\text{When dividing } \frac{P(x)}{x - a} \text{ ,}$$

Use synthetic division to find the function values.

49) $f(x) = 4x^3 - 13x + 10$; find $f(-2)$

<u>Factor Theorem</u> -

$$\text{When dividing } \frac{P(x)}{x - a} \text{ ,}$$

Use synthetic division to show that x is a solution of the polynomial, and use the result to factor the polynomial completely. List all the real zeros of the function.

61) $x^3 - 3x^2 + 2 = 0$ $\{ 1 + \sqrt{3}$, $\}$

Assignment:
pg. 239
8 - 20 even,
24 - 40 even,
56 - 62 even,
68 - 72 even,
73, 74