Skills Practice

Name _____   **Date** _____

I. Using the Factor Theorem

A. Determine each function value.

1. Determine $p(3)$ if $p(x) = 2x^3 - 6x^2 - 36x - 36$.

2. Determine $p(-2)$ if $p(x) = x^4 - 10x^3 + 8x^2 + 106x - 105$.

3. Determine $p(-3)$ if $p(x) = 2x^4 + 5x^3 + 8x^2 + 15x + 6$.

4. Determine $p(1)$ if $p(x) = x^4 + 3x^3 - 6x^2 - 8x$.

5. Determine $p(10)$ if $p(x) = 6x^3 + 11x^2 - 3x - 2$.

6. Determine $p\left(\frac{1}{3}\right)$ if $p(x) = x^4 - x^3 + 7x^2 - 9x - 18$.