Name _____

Homework 17
Section 4.4

1. (5) Factor the polynomial $p(x) = x^3 - 8x^2 + 16x - 5$ completely.

2. (5) Determine the value(s) of b so that $x+b$ is a factor of $p(x) = x^3+(b-2)x^2+x+(12-b)$.

3. (5) Given that $x = -1$ and $x = 2$ are two zeros of $f(x) = x^4 - 6x^3 + 6x^2 + 7x - 6$, find the *exact* values of the remaining zero(s).

4. (5) Divide $f(x) = 6x^4 - 2x^3 + 25x^2 - 8x + 20$ by $d(x) = 2x^2 + 7$. Write $f(x)$ in the form $f(x) = d(x)q(x) + r(x)$.