Directions: Show all work for full credit. Clearly indicate all answers. Simplify all mathematical expressions completely. Each question is worth 8 points.

1. Simplify the following expression: $x(x^2+3)-3(x+4)$

2. Write an algebraic expression that represents the specified quantity in the following verbal statement, and simplify if possible.
"The sum of a number $n$ and five times the number"

3. Solve the following equation for $x$:

$3(x-4)=7x+6$

4. A product is on sale for \$27 after a discount rate of 40%. What are the list price and discount?

5. Solve the following inequality and sketch the solution on the real number line:

$-3x+7<8x-13$