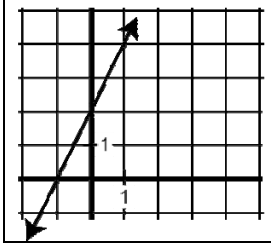
Diagnostic Questions for Math 116 Follow-up

For each problem from "Diagnostic Questions for Math 116", I have listed the main concepts needed, the appropriate sections from your textbook, and worksheets from the Math Resource Center Website (numbered on the Math 116 Worksheet page) that may help you review these topics. It is your responsibility to fill in the gaps in your prerequisite knowledge. Good luck and remember the Math Resource Center is here to help you.

Problem	**Concepts, book sections, and worksheets to study**
1. Simplify $4y - 7xy + 5xy + y$	combining like terms, book section 2.1, Worksheets 3 and 4
2. Simplify $10n^3 \cdot 2n^4$	simplifying with rules of exponents, book section 5.1, Worksheet 9
3. Simplify $(3y^4)^2$	simplifying with rules of exponents, book section 5.1, Worksheet 9
4. Simplify $\frac{12x^{15}}{4x^5}$	simplifying with rules of exponents, book sections 5.1 and 5.5, Worksheet 9
5. Rewrite using all positive exponents: $7m^{-3}n^5$	negative exponents, book section 5.5
6. Distribute: $4n^2(5n^6 - 3)$	book section 1.8, distribution property, also rules of exponents in 5.1, Worksheet 3
7. Multiply: $(5a - 2)(3a + 1)$	FOIL, book section 5.4, Worksheet 10
8. Solve $2x - 7 = -20$	solving linear equations, book sections 2.3, Worksheet 5
9. Let $f(x) = 3x - 4$. Find $f(-3)$.	functional notation, book section 3.6, order of operations also important
10. Simplify $(5x)^2 * (3x^3)$	simplifying with rules of exponents, book section 5.1, Worksheet 9
11. Evaluate $b^2 - 4ac$ for $a = 2$, $b = 3$, and $c = -3$.	book section 2.1, order of operations also important
12. Find the slope of the line drawn below. 	linear relationships and their slope, book section 3.4