Exam 5 Review

1. vocabulary
   a. term
   b. degree of a term
   c. degree of a polynomial
   d. monomial, binomial, trinomial
2. exponent rules
   a. $a^m \cdot a^n = a^{m+n}$
   b. $\left(a^m\right)^n = a^{n \cdot m}$
   c. $\dfrac{a^m}{a^n} = a^{m-n}, \quad a \neq 0$
   d. $(ab)^n = a^n b^n$
   e. $\left(\dfrac{a}{b}\right)^n = \dfrac{a^n}{b^n}, \quad b \neq 0$
   f. $a^0 = 1, \quad a \neq 0$
   g. $a^{-n} = \dfrac{1}{a^n}, \quad a \neq 0$
3. multiplying polynomials
   know methods for multiplying a binomial times a trinomial
4. FOIL method for multiplying binomials
   First **O**utside **I**nside **L**ast
5. special products
   a. $(a+b)(a-b) = a^2 - b^2$
   b. $(a+b)^2 = a^2 + 2ab + b^2$
   c. $(a-b)^2 = a^2 - 2ab + b^2$
6. scientific notation: $a \times 10^n, 1 \leq a < 10$, n an integer