

Homework Assignments

Chapter 9: Polynomials & Factoring

All homework is done in a notebook or on loose leaf. Unless problem is meant to be a “mental” problem, all work should be shown.

Homework

- Section 9-1: pgs. 459-460: 16, 19, 20-40 evens, 44-50 evens
- Section 9-2: pgs. 463-464: 2-38 evens, do 25 not 26
- Section 9-3: pgs. 469-471: 6-54 evens; do not do 40, 44, or 50
- Section 9-4: pgs. 477-478: 2-52 evens; skip 10-14, 22-24, 40-42
- Section 9-5: pgs. 483-484: 6-16 & 22-28 & 44-54 & 60-64 - all evens only
- Section 9-6: pgs. 487-488: 2-26, 34-38 both sections alternate evens; 44-46 all
- Section 9-7: pgs. 493-494: 2-66a (skip b & c) alternate evens, do not do 42, 54
- Chapter Test: Extra Credit for Test: pg. 506: 1-42

Chapter Overview

- Monomial – mathematical expression consisting of a constant, variable or product of a constant and variable(s)
- Terms and Degrees:
 - Monomial – 1 term
 - Binomial – 2 terms
 - Trinomial – 3 terms
 - Polynomial – 4 or more terms
 - Constant – zero degree
 - Linear – 1st degree
 - Quadratic – 2nd degree
 - Cubic – 3rd degree
 - 4th, 5th, etc. degrees go by their numeric name
- Standard form: Writing a polynomial in descending degree order from left to right
- Like terms – Monomials that differ only by their coefficients / constants member; only like terms can be added or subtracted
- Multiplying Polynomials – use distributive property or for binomial multiplication only use F.O.I.L. (First Outer Inner Last) method
- Factoring
 - Factor out the GCMF – greatest common monomial factor
 - For $x^2 + bx + c$ find factors of “c” whose sum is “b”:
 $x^2 + bx + c = (x + d)(x + f)$ where $d * f = c$ and $d + f = b$
 - For $ax^2 + bx + c$ find factors of “a” and “c” whose product and sum is “b”:
 $ax^2 + bx + c = (gx + d)(hx + f)$ where $d * f = c$ and $g * h = a$ and $dh + gf = b$
 - Special factors:
 $(a + b)^2 = (a + b)(a + b) = a^2 + 2ab + b^2$
 $(a - b)^2 = (a - b)(a - b) = a^2 - 2ab + b^2$
 $(a - b)(a + b) = a^2 - b^2$