

1-5 Simplifying Expressions and Negative Exponents

_____ 1. Simplify $\frac{4a^3b^5c}{6a^2b^3c}$

_____ 2. Simplify $\frac{c^3w^{-5}h^{-1}}{c^{-1}w^{-2}h}$

_____ 3. Simplify $(3a^{-5})^{-2}$

_____ 4. Simplify $(3s^{-2}t^4u^{-1}d)^{-3}$

_____ 5. Simplify $\frac{y^2e^{-5}s^4}{y^7e^2s^{-4}}$

2-1 Factoring Polynomials

_____ 1. Factor $x^2 - x - 56$

_____ 2. Factor $x^2 + 5x - 24$

_____ 3. Factor $6x^2 + 9x - 105$

_____ 4. Factor $x^2 - 49$

_____ 5. Factor $10x^2 + 29x + 10$

2-3 Factor by Grouping

_____ 1. Factor $3x^2 + xy - 12x - 4y$

_____ 2. Factor $10x^3 - 6x^2 + 15x - 9$

_____ 3. Factor $3n^3 + 12n^2 + 2n + 8$

_____ 4. Factor $y^5 + 3y^3 + 4y^2 + 12$

_____ 5. Factor $n^3 + 2n - n^2 - 2$