

Math 070
Exponents and Polynomials Worksheet

Simplify:

1. $\frac{21x^4y^7}{3xy^2}$

2. $\frac{(2ab)^3}{4a^7b}$

3. $(3x^2 + 8x - 7) + (2x^2 - 4x + 10)$

4. $(7x^2 - xy + 10y^2) - (-3x^2 + 3xy - 2y^3)$

Find the product:

5. $(x - 9)(2x^2 + 4x - 9)$

6. $(x^3 + 4x - 5)(2x^2 - 7x + 1)$

7. $(3x + 7z)^2$

8. $(\frac{x}{4} + 6y)(\frac{x}{4} + 6y)$

Simplify and write answer without negative exponents:

9. $\frac{(5^{-3}r^{-2}s^3)^{-2}}{5^{-2}r^3s^{-2}}$

Write in scientific notation:

10. 9,310,000,000

Write in standard notation:

11. 3.4×10^{-7}

Divide:

12. $\frac{7x^2 - 4x + 4}{2x^2}$

13. $\frac{15x^2 + 19x - 5}{3x + 2}$

$$14. \frac{4x^3 + 11x^2 - 8x - 11}{x + 3}$$