

EXAM 2
Math 101
June 30, 2005

Name _____

Do all work neatly. Show all of your work. Circle your final answer where appropriate.

1. Simplify $\frac{10a^7b^4c^2}{12a^4b^2c^2}$.

2. Find $(a^2bx)(2ab - 3b^2x + 8a^3 - 4b)$.

3. Find $(x^2y^3z - 2x + 5xz) + (10x + 3xz - 4x^2y^3z)$.

4. Solve the following system of equations using the substitution method.

$$\begin{aligned}4x + y &= 7 \\6x + 3y &= 18\end{aligned}$$

5. Find the x and y values for this system using the elimination method.

$$\begin{aligned}5x - 8y &= 10 \\9x + 12y &= 18\end{aligned}$$

6. Find $(12x^2 + 10x - 2)(3x - 2)$.

7. Find $(2x + 5)(2x - 5)$

8. Find $(3a^4b^2 + 4b^5)(7a^2 - 2b + 3ab)$

9. Find $(8x^3 - 14x + 29) \div (2x + 3)$

10. The difference of two numbers is 25. When twice the larger number is added to four times the smaller number the result is 250. What are the two numbers?

11. Admission to a skating rink is \$4.25 for children and \$7.50 for adults. If one evening the skating rink collected \$930 and 150 people were admitted, how many of those people were children?