

Name: _____ Date: _____

For Calculator Users: If decimal approximations are appropriate, round answers to the nearest thousandth.

- _____ 1. Simplify: $\frac{4}{\frac{2}{3}}$
- _____ 2. Simplify: $\frac{5}{8} - \frac{2}{3} + 1$
- _____ 3. Insert $<$, $>$, or $=$ to make a true statement: $(-2)(-6) - (-2)$ _____ $2(-3) - 8$
- _____ 4. Write 0.375 as a fraction in lowest terms.
- _____ 5. A water tank is filled to a depth of 4 feet. A drain is opened to reduce the depth of the water by 20%. What is the depth of the water when the drain is closed?
- _____ 6. A currency conversion is used to exchange US dollars to Canadian dollars. If, for example, \$20 (US dollars) = \$25.60 (Canadian dollars), how much Canadian money would you receive in exchange for \$32.50 (US dollars)?
- _____ 7. Evaluate $\frac{(2m+1)^2}{(n+7)}$ when $m = 1.5$ and $n = -1$.
- _____ 8. Simplify: $2a + 5b - 3(a + b)$
- _____ 9. Solve: $\frac{-2}{3}x - 4 = 2$
- _____ 10. Solve: $\frac{x}{15} = \frac{3}{5x}$
- _____ 11. Solve: $2x - 1 < 3(2x + 1)$
- _____ 12. Simplify, expressing the result without using negative exponents. $(a^{-3})^2(2ab^0)^4$
- _____ 13. Factor: $24a^2b + 15ab^2$
- _____ 14. Perform the indicated operation: $(2x - 3)(x + 4)$
- _____ 15. The line $4x + 2y = -2$ contains a point whose second coordinate is 1. Name the point.
- _____ 16. Simplify: $\sqrt{2x}\sqrt{8x^3y^3}$