

Show all your details work on separate sheet(s) (8½ x 11):

1. Evaluate.

a) $\frac{-2}{5} + \frac{1}{6} - \left(\frac{-1}{15}\right)$

b) $x^2 - 2xy - y^2$ when $x=3$ and $y=-1$.

2. Simplify.

a) $xy - 8y - 5xy - 3x^2 + 2x^2 - 12y$

b) $3x^4y^2(x^2y + 4x - 2)$

c) $4x - 2(3x - 2) + 3(3x - 1)$

d) $(-2x^4y)^3$

3. **Solving equations.** Solve for x in each equation.

a) $6x + 10 = 2x + 2$

b) $2(5x - 3) = -2x - 10$

c) $\frac{2x-3}{4} - \frac{3x-2}{3} = 1$

4. **Word Problem:** You must use an equation with one variable to solve this problem and use proper problem solving form.

A box contains 34 more dimes than nickels. The total value is \$11.20. How many dimes and how many nickels are in the box?

5. Determine the equation for the growth of a tree over a 5 year period from the graph.

