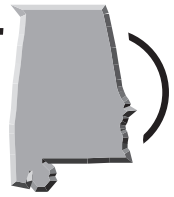
Name Date

Standards Practice

Basic Operations on Algebraic Expressions AHSGE I-1



Apply order of operations.

1 Simplify: $4^2 + 5 - 6 \div 2$

2 Simplify: $(5 - 2)^2 - 5 + 4^2 \cdot 2$

3 Simplify: $3 + (6^2 - 8) \div 4 \cdot 5$

4 Simplify: $\frac{2^4 - 3 \cdot 5}{10} + 4$

5 Simplify: $8 \cdot 6 - 3^3 - (4 \cdot 2 - 3)$

6 Simplify: $a + b + a - 3b$

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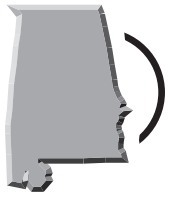
Basic Operations on Algebraic Expressions AHSGE I-1 (continued)



7 Simplify: $2x - 3y - (x + 4y)$

8 Simplify: $6y + \frac{4y - 2y}{2}$

9 Simplify: $m - (m + 4n) - 3n$

10 Simplify: $3z - 5 + \frac{3z + 9z}{4} - 7$

11 Simplify: $8 - |4 - 9| + 2$

12 Simplify: $-3 + 3 \cdot |-5 - 2| + 6$

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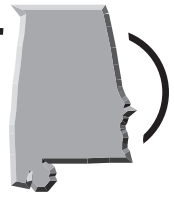
Basic Operations on Algebraic Expressions AHSGE I-2



Add and subtract polynomials.

1 Simplify: $2x^2 + 3xy - 4x^2 - 5xy$

2 Simplify: $5p^2q^3 - 4pq + 4p^2q^3 + pq$

3 Simplify: $3.5r^2 - 5.5 + 1.5r^2 + 4$

4 Simplify: $-4.6wz^3 + 2.4z^2 + 0.8z^2 - 3.4wz^3$

5 Simplify: $5(t^2 - 3) + 2(t^2 - 4)$

6 Simplify: $8m^2 - 4(m^2 - n^3) + n^3$

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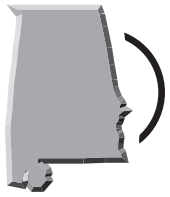
Basic Operations on Algebraic Expressions AHSGE I-2 (continued)



7 Simplify: $9rs^2 + 6r^2 - 4(rs^2 + 3s)$

8 Simplify: $\frac{3y - 2}{4} + \frac{2y - 1}{8}$

9 Simplify: $\frac{1}{2}c + \frac{1}{2}d - 2\left(\frac{1}{4}c + \frac{1}{8}d\right)$

10 Simplify: $3x - 6\left(\frac{1}{2}x - \frac{1}{12}y\right) - \frac{2}{3}y$

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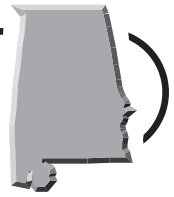
Standards Practice

Solve Equations and Inequalities AHSGE II-1



Solve multi-step equations of first degree.

1 Solve: $-x + 2 = -3x + 18$

2 Solve: $-4m + 6 = -3m + 5\frac{1}{2}$

3 Solve: $\frac{3x + 6}{4} = 3$

4 Solve: $-12 = \frac{5x - 1}{3}$

5 Solve: $\frac{x}{2} = \frac{x - 4}{3}$

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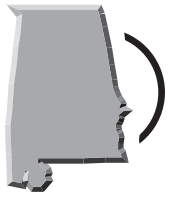
Standards Practice

Solve Equations and Inequalities AHSGE II-1 (continued)



6 Solve: $\frac{y-5}{3} = \frac{2y-1}{4}$

7 Solve: $3(z-4) = 12$

8 Solve: $-18 = 6(-r-4)$

9 Solve: $-10 = 7y - 9$