

Algebraic Equations and Expressions Review

1. Subtract $4x^2 - x + 5$ from $-3x^2 + x - 7$.
2. Solve for m : $-13m - 5 = 9m - 39$
3. Simplify: $8a - 9b + 15(b - a)$
4. Simplify: $20x^2 - 4x + 15 - 19x + 4x^2 - 1 + x$
5. Solve for x : $10 - (x + 4) = 6x - 14$
6. Solve for y : $-5y - (y - 1) = 11 - y$
7. If $2x - 5 = 17$, then what is the value of $5x + 2$?
8. Determine whether $x = 4$ is a solution to the equation $9 - 4x = 7$. Explain how you found your answer.
9. Identify each as an algebraic expression or an algebraic equation:
 - a) $10x - 15 + 9x^2 = 17x$
 - b) $9y - 16 + 7y - 8$
 - c) $8w - 5w = 17 - (w - 4)$
 - d) $-7x + 5 - 2x + 8(x - 3)$
10. Solve for y : $17 - \frac{4}{5}g = 5$
11. Simplify: $9p - 4(p - x) + (2p - 1) - 5x$
12. Simplify: $(7x^2 - 8x + 1) - (6x + x^2 + 1)$
13. Solve for W : $-6(2W + 1) - 5(W - 4) = 17W - 9$
14. Solve for h : $h - 7(h - 3) + 6h = 3 - 3h$
15. Simplify: $-4(k - 3) + (5x - 2) - (2 - k) + 9(x - 4)$