

Solving Mixed Expressions and Equations

Example

Example Problem:

Simplify the expression: $2x + 5 - x + 3$

Solution:

Combine like terms:

$$2x - x = x \quad 5 + 3 = 8$$

So, the simplified expression is: $x + 8$

1. Simplify the expression: $3x + 7 - 2x + 4$
 2. Solve for x : $2x - 5 = 9$
 3. Expand and simplify: $4(y + 2) - 3(y - 1)$
 4. Solve for y : $5y + 3 = 2y + 18$
 5. Simplify the expression: $2(a^2 - 3a) + 4(a - 1)$
 6. Solve for m : $7m - 8 = 5m + 10$
 7. Factorise completely: $x^2 - 9$
 8. Solve for p : $3(p - 2) = 2p + 7$
 9. Simplify the expression: $6b - 2(3b - 4)$
 10. Solve for z : $4z + 6 = 2z + 18$
 11. Expand and simplify: $(x + 2)(x - 5)$
 12. Solve for k : $k/3 + 5 = 11$
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Maths with Melissa

Answer Key

1. $x + 11$
2. $x = 7$
3. $y + 11$
4. $y = 5$
5. $2a^2 - 2a - 4$
6. $m = 9$
7. $(x + 3)(x - 3)$
8. $p = 13$
9. $6b - 6b + 8 = 8$
10. $z = 6$
11. $x^2 - 3x - 10$
12. $k = 18$