Linear Equations; $ax + b = c$

Strategy

Use the Order of Operations in reverse using the inverse (opposite) operation to isolate the variable.

Order of Operations

1. **Grouping**
2. **Exponentials**
3. **Multiply/Divide**
4. **Addition/Subtraction**

from left to right

Example: **Solve** $5x - 2 = 18$

$+2 \quad +2$

$5x = 20$

$x = 4$

Solve the following equations.

1. $3x + 4 = 19$
2. $4x - 2 = 18$
3. $5x + 6 = 36$
4. $7x - 6 = 22$
5. $6x - 5 = 37$
6. $5x + 3 = -27$
7. $-4x + 7 = -25$
8. $-30 = 4x + 2$
9. $3 = 5x + 38$
10. $4x + 3 = 1$
11. $\frac{x}{2} + 6 = 10$
12. $\frac{y}{4} - 3 = 7$

Linear Equations; $ax + b = c$

Strategy

Use the Order of Operations in reverse using the inverse (opposite) operation to isolate the variable.

Order of Operations

1. **Grouping**
2. **Exponentials**
3. **Multiply/Divide**
4. **Addition/Subtraction**

Example: **Solve** $5x - 2 = 18$

$+2 \quad +2$

$5x = 20$

$x = 4$

Solve the following:

1. $3x + 7 = -8$
2. $4x - 5 = -25$
3. $5x + 12 = -8$
4. $2x + 9 = -5$
5. $6x - 4 = 20$
6. $7x + 3 = -18$
7. $8x - 6 = 26$
8. $9x + 1 = -35$
9. $5x - 10 = 15$
10. $4x + 11 = -13$
11. $3x - 8 = 13$
12. $2x - 7 = -17$

Linear Equations; $ax + b = c$

Strategy

Use the Order of Operations in reverse using the inverse (opposite) operation to isolate the variable.

Order of Operations

1. **Grouping**
2. **Exponentials**
3. **Multiply/Divide**
4. **Addition/Subtraction**

Example: **Solve** $5x - 2 = 18$

$+2 \quad +2$

$5x = 20$

$x = 4$

Solve the following equations.

1. $4x + 5 = -19$
2. $6x - 8 = 16$
3. $7x + 3 = -25$
4. $5x - 9 = 26$
5. $8x + 6 = -34$
6. $3x - 7 = 20$
7. $9x + 2 = -43$
8. $2x + 12 = 0$
9. $4x - 11 = 13$
10. $5x + 4 = -21$
11. $6x - 10 = 32$
12. $7x + 8 = -27$

Linear Equations; $ax + b = c$

Strategy

Use the Order of Operations in reverse using the inverse (opposite) operation to isolate the variable.

Order of Operations

5. Grouping
6. Exponentials
7. Multiply/Divide
8. Addition/Subtraction

Example: **Solve** $5x - 2 = 18$

$+2 \quad +2$

$5x = 20$

$x = 4$

Solve the following problems

1. $8x + 7 = -41$
2. $9x - 5 = 40$
3. $6x + 11 = -19$
4. $5x - 12 = 23$
5. $4x + 13 = -15$
6. $7x - 6 = 29$
7. $3x + 14 = -4$
8. $2x - 17 = -31$
9. $8x + 2 = -30$
10. $9x + 8 = -46$
11. $5x - 15 = 10$
12. $6x + 4 = -20$