

Warm-up

Simplify the expression.

1. $2(x + 5)$

2. $1/2(n - 4)$

3. $-2(x - 7)$

Solve the one step equations.

4. $\frac{y}{3} = -2$

5. $\frac{2}{3}m = -4$

Guided Notes**Solve Two-Step Equations**

The equation $\frac{x}{2} + 5 = 11$ involves 2 operations performed on x : _____ and _____ . You typically solve such an equation by applying the inverse operations. This is shown in the table below.

| Operations Performed on x | Operations to Isolate x |
|---|---|
| 1. Divide by 2. | 1. Subtract 5. |
| 2. Add 5. | 2. Multiply by 2. |

***When solving a two-step equation, always _____ or _____ before you _____ or _____ .

Example: $\frac{x}{2} + 5 = 11$

Check:

Solve each equation. Don't forget to check!

| | | |
|--------------------------|---------------------------|----------------------------|
| 1. $5x + 9 = 24$ | 2. $4y - 4 = 16$ | 3. $-1 = \frac{x}{3} - 7$ |
| 4. $\frac{n}{4} + 3 = 2$ | 5. $4 - m = 14$ | 6. $\frac{1}{4}x + 2 = -2$ |
| 7. $50 = 7y - 6$ | 8. $1 + \frac{3}{4}y = 7$ | 9. $\frac{t}{4} - 3 = 9$ |

You can also have a two-step equation that involves combining _____.

Example: $7x - 4x = 21$

Check:

Solve each equation.

| | | |
|-------------------|--------------------|---------------------|
| 10. $5b - 7b = 4$ | 11. $8y - 3y = 35$ | 12. $-16 = 5d - 9d$ |
|-------------------|--------------------|---------------------|

Homework: P. 144 #3-6, 10-14, 18-20