Worksheet 4-10: One-Step Equations

Step 1: Isolate the variable by **subtracting, adding, dividing OR multiplying**

Hint: Identify the math operation and its opposite operation FIRST!

Steps	English
1. $x + 5 = 25$ $\underline{-5 \quad -5}$ $x = 20$	"x plus 5 equals 25" *Math Operation: Add Opposite Operation: **Subtract*** **Step:** Isolate x by subtracting 5 from both sides (Simplify)
2. $y - 7 = 18$ $\underline{+7 \quad +7}$ $y = 25$	"y minus 7 equals 18" *Math Operation: Subtract Opposite Operation: **Add*** **Step:** Isolate y by adding 7 to both sides (Simplify)
3. $m + 10 = 27$	"m plus 10 equals 27" *Math Operation: _____ Opposite Operation: _____* **Step:** (Simplify)
4. $n - 9 = -12$	"n minus 9 equals –12" *Math Operation: _____ Opposite Operation: _____* **Step:** (Simplify)

Steps	**English**
5. $6x = 42$ $\dfrac{6x}{6} = \dfrac{42}{6}$ $x = 7$	"$6x$ equals 42" *Math Operation: Multiply Opposite Operation:* **Divide** **Step:** Isolate x by dividing both sides with 6 (Simplify)
6. $9y = -108$	"$9y$ equals –108" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
7. $\dfrac{x}{4} = -8$ $4\left(\dfrac{x}{4}\right) = 4(-8)$ $x = -32$	"x over 4 equals –8" *Math Operation: Divide Opposite Operation:* **Multiply** **Step:** Isolate x by multiplying both sides with 4 (Simplify)
8. $\dfrac{x}{10} = -2.5$	"x over 10 equals –2.5" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)

Steps	English
9. $\dfrac{c}{5}=7$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
10. $p-1=10$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
11. $w+8=-4$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
12. $7a=-49$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
13. $-3x=36$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)

Steps	English
14. $x + 12 = -7$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
15. $y - 11 = 10$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
16. $\dfrac{w}{-2} = 24$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
17. $\dfrac{k}{-4} = -2.5$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)
18. $-5x = -42$	"_____" *Math Operation:* _____ *Opposite Operation:* _____ **Step:** (Simplify)

Worksheet 4-11: Solving One-Step Equations

Solve. (Always check your answer by substitution!)

1. $x - 11 = 22$

2. $y + 12 = 28$

3. $m - 23 = -33$

4. $n + 9 = -25$

5. $7 + a = 21$

6. $15 = -8 + w$

7. $\dfrac{y}{6} = -8$

8. $\dfrac{n}{-2} = -18$

9. $-12 = \dfrac{b}{6}$

10. $-3k = 33$

11. $-c = -100$

12. $-125 = 5d$

Answers: 1. $x = 33$; **2.** $y = 16$; **3.** $m = -10$; **4.** $n = -34$; **5.** $a = 14$; **6.** $w = 23$; **7.** $y = -48$; **8.** $n = 36$; **9.** $b = -72$; **10.** $k = -11$; **11.** $c = 100$; **12.** $d = -25$

Bingo: One-Step Equations

Instructions:
(1) Write numbers 1-9 randomly in the small boxes inside the big squares.
(2) According to each question number, copy the question inside the big square.
(3) Solve each question inside each big square. **Show your steps**.

1. $x + 15 = 26$

2. $n - 9 = -20$

3. $-15 = -6 + w$

4. $4k = -36$

5. $-c = 19$

6. $60 = 5d$

7. $\dfrac{y}{12} = -6$

8. $\dfrac{n}{-3} = -100$

9. $5 = \dfrac{b}{9}$