Solving Equations Homework
Chapter 2 Homework

Algebra 1

For each problem:
- Write the equation on notebook paper
- Show all the steps to solve the problem
- Draw a box or circle around your final answer

1. $-52 = 13t$
2. $\frac{y}{0.5} = 4$
3. $-30 = \frac{5n}{3}$
4. $8a - 7 = 41$
5. $-\frac{4}{3} - x = -\frac{1}{3}$
6. $2.1 = 4.3 - 1.1w$
7. $\frac{5}{6}n + 34 = 9$
8. $34 = \frac{7}{8}x - 8$
9. $3(x - 1) = 5(x - 3)$
10. $-3n - 8 = -5n + 12$
11. $2(x - 3) + 3(x - 2) = 8$
12. $5x - (4 + 3x) = 108$
13. $3(k + 4) - 2(k - 1) = 8$
14. $5a + 3a = 4(a - 9)$
15. $4(x - 8) = 3x - 4x + 7$
16. $7(x - 1) + 2(3x + 5) = 5x - 11$
17. $-52 - 7n = 8(2n + 1) - (2n - 9)$
18. $3(3x + 1) - (x - 1) = 6(x + 10)$
19. $4x - 2(1 - x) = 2(3x - 2)$
20. $0.72n - 19.7 = 0.3(0.2n + 1.8)$

Solve each equation for x.

21. $7x - k = 8$
22. $b - 7x = n$
23. $hx + j = r$
24. $3x = 12c + 6d$
25. $\frac{mx}{r} = 4r$

How to Solve Equations

1. **Distribute** to get rid of any parentheses.
2. **Combine** like terms on each side.
3. Locate the x's. **Which side has the most x's**?
4. **Add or subtract** to get rid of the smaller number of x's.
5. **Add or subtract** to get rid of the number next to the x's.
6. **Multiply or divide** to cancel out the coefficient in front of the x.

EXAMPLE:

$3x + 1 + 2x - 11 = 4(2x - 1)$

$3x + 1 + 2x - 11 = 8x - 4$	The 4 is distributed to get rid of the parentheses.
$5x - 10 = 8x - 4$	Like terms on each side are combined.
$\boxed{5x} - 10 = \boxed{8x} - 4$	The x's are located. The 5x is smaller.
$-10 = 3x - 4$	5x is subtracted from both sides.
$-6 = 3x$	4 is added to both sides.
$-2 = x$	Both sides are divided by 3.