

MAT 0024 Chapter 2 Section 2
Worksheet 2
Solving Equations

Summary: To solve equations, use the addition/multiplication principles to **"Get rid of..."**

1. **P**arentheses by using the distributive property. Combine like terms if no fractions.
2. **D**enominators: Multiply each side of equation by common denominator.
BEFORE NEXT STEP, ALL LIKE TERMS ON EACH SIDE SHOULD BE COMBINED!
EACH SIDE SHOULD BE NO MORE COMPLICATED THAN: "4X - 8"
3. **S**igns (addition or subtraction) by using the addition principle (add opposites). Get variable terms on one side of the equation and all constant terms on the other side. Goal: Each side of equation is **no more complicated** than "4x = -9."
4. **C**oefficients by dividing by dividing both sides by coefficient. Goal: x = number
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A. "Getting rid of" coefficients (number times variable) by dividing:

1. $3x = 6$

2. $-2x = 8$

3. $-3.4x = 68$

B. "Getting rid of" signs by adding the opposite:

1. $x + 3 = 8$

2. $x - 7 = -8$

3. $-9.4 = y - 6.12$

4. $5t + 4 = -11$

5. $-5 = 6m + 2$

6. $-5y = -2y + 7$

7. $2x + 6 = 7x$

8. $3x - 13 = -9 + 2x$

9. $-4m - 3 = 2m + 8$

10. $-3x + 4 = 5 - 7x$

11. $5m - 4 = m + 12$

12. $6y - 1 = -4y + 9$