

Warm-Up Notes

MAT 100: ELEMENTARY ALGEBRA

Fall 2026

SECTION 2.4 USE A GENERAL STRATEGY TO SOLVE LINEAR EQUATIONS

Install — 10 minute lesson

Objectives of this Section

- Solve equations using a general strategy
- Classify equations

Skills

Introduced in this section:

No new skill introduced this section. **Also practiced:** EQN.MS (Multi-step Equations), WRD.NM (Naming the model), WRD.EQ (Decoding an explicit equation).

Lesson

You already know how to distribute, combine like terms, and move variables to one side. This section bundles all of those moves into one five-step strategy that works on *any* linear equation, no matter how messy it looks. Do the steps in the same order every time, and you'll always know where to start.

I do

Watch. Solve the linear equation. Show your work. $24 - 8(3v + 6) = 0$

We do

Together. Solve the linear equation. Show your work. $5(x - 4) - 4x = 14$

You do

Your turn. Solve the equation $\frac{1}{4}(8x + 20) = 3x - 4$ explaining all the steps of your solution as in the examples in this section.

Your turn. Solve the linear equation. Show your work. $-2(a - 6) = 4(a - 3)$

Practice

1. Solve the linear equation. Show your work. $8(6t - 5) - 35 = -27$
2. Solve the linear equation. Show your work. $5 - (n - 1) = 19$
3. Solve the linear equation. Show your work. $-15 + 4(2 - 5y) = -7(y - 4) + 4$
4. Classify each equation as a conditional equation, an identity, or a contradiction and then state the solution. $18(5j - 1) + 29 = 47$