

Warm-Up Notes

MAT 100: ELEMENTARY ALGEBRA

Fall 2026

SECTION 3.1 USE A PROBLEM-SOLVING STRATEGY

Install — 10 minute lesson

Objectives of this Section

- Approach word problems with a positive attitude
- Use a problem-solving strategy for word problems
- Solve number problems

Skills**Introduced in this section:**

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

Lesson

Word problems are not a different kind of math — they are a translation problem. Every one of them follows the same path: name the thing you don't know, restate the problem as one plain sentence, and turn that sentence into an equation you already know how to solve. Trust the steps and the problem stops being scary.

I do

Watch. The sum of a number and eight is 12. Find the number.

We do

Together. The sum of two numbers is zero. One number is nine less than twice the other. Find the numbers.

You do

Your turn. Solve using the problem solving strategy for word problems. Write a complete sentence to answer the question. The sum of two numbers is 45. One number is 12 more than the other. Find the numbers.

Your turn. Find three consecutive odd integers whose sum is -267 .

Practice

1. The sum of two numbers is -61 . One number is 35 more than the other. Find the numbers.

2. Kenji paid \$2,279 for a new living room set, including \$129 tax. What was the price of the living room set before tax?

3. Solve using the problem solving strategy for word problems. Write a complete sentence to answer the question. The sum of two numbers is 45. One number is 12 more than the other. Find the numbers.

4. What are consecutive even integers? Name three consecutive even integers between -50 and -40 .