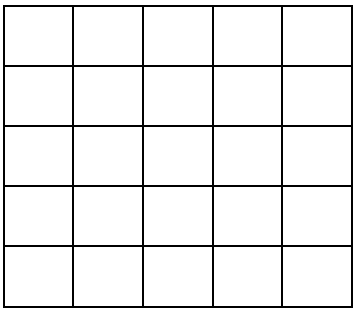
Math 101 Name_____

PROBLEM SOLVING 2

Recall the 5x5 grid problem we did on the first day of class:



Recall also that the first time we saw this as a class it was very challenging, and we couldn't settle on an answer, so I listed 3 problem-solving strategies that would be helpful. When we came in the next day we were able to shout out the correct answer after having used those strategies. What were the 3 strategies I gave you? List them below:

1 _____

2 _____

3 _____

Here are some additional problem solving strategies:

Make it Simpler

Draw a Diagram or Picture

Guess and Check

Eliminate Possibilities

Use a Variable (Algebra)

Logical Reasoning

Change Your Point of View

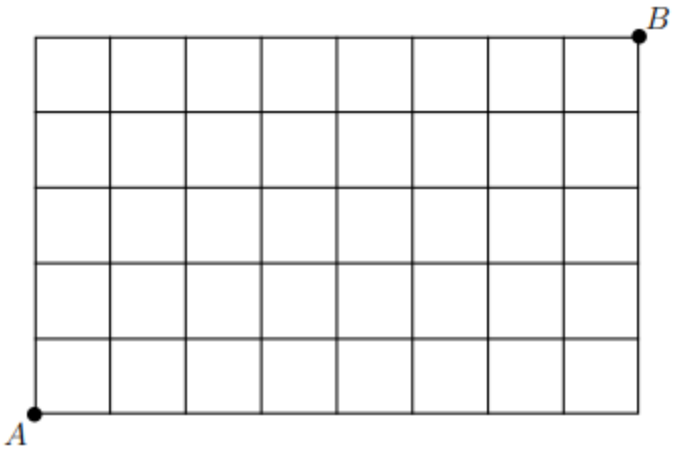
Use Number Sense

Apply Problem-Solving Techniques:

1) Amy, Haley and Rachael are on a basketball team. Their positions are forward, center and guard. Given the following information, determine who plays each position. Show work that supports your answer.
    a) Amy and the guard bought a milk shake for Rachael.
    b) Amy is not a forward.

What strategies did you use to solve to the problem above?

2) If one must always move upward or to the right on the grid below, how many paths are there from A to B.



3) A census-taker knocks on a door and asks the woman inside how many children she has and how old they are. "I have three daughters; their ages are whole numbers, and the product of their ages is 36," the mother says. "That's not enough information," responds the census-taker. "The sum of their ages is equal to the address on the house next door." The census-taker looks next door and sees the address. He still can't figure out their ages. The mother then says, "Sorry, I need to go. I'm working on something with my oldest daughter," and she closes the door. The census-taker then realizes what the ages are. What are the ages of the three daughters?

4) The space below is for the light-bulb problem on your original problem-solving worksheet.

5) The space below is for the counting problem on your original problem-solving worksheet.