

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Due Date: \_\_\_\_\_

When solving the following problem, be sure to:

- 1) Restate the question
- 2) State your answer in a complete sentence (reference the question).
- 3) Explain your solution strategy and include your calculations/work.
- 4)

### Examining an Equation

Given the following equation:

$$5(2a + 1) - 4(a - 2) = b(a + 4) + 16$$

1. Simplify the equation.
2. Find one pair of integer values for  $a$  and  $b$  that satisfies the equation.



Be sure to show and explain your thinking and work!

**Extra:** Find another pair of integer values for  $a$  and  $b$  that satisfies the equation. Why do you think this equation has more than one possible integer solution?

**Extra Extra:** Do you think there are infinite possible pairs of integer solutions to this equation? Why or why not?

Please answer the problem on a separate piece of paper. You must include all your calculations and an explanation of how you got your answer. Your paper will be scored in the following way:

- 4 The answer and the bonus are correct, you have included all your calculations, and the explanation is thorough and understandable.
- 3 The answer is correct, you have included all your calculations, and the explanation is complete and clear to the reader.
- 2 The answer is missing one of the items mentioned above.
- 1 The answer is incorrect, and the explanation or calculations are poor or missing.
- 0 Minimal or no effort was made to solve the problem.
- All late work is marked down a grade.