

## EXPLORATION 1.4 How Many Squares?

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The following exploration comes from a question a child asked his parent while playing checkers: How many squares of any size are in the checkerboard?

1.
  - a. Before you actually begin to determine the answer, first stop to think about how you might go about solving the problem. Write your thoughts.
  - b. Share your ideas with other members of your group. Briefly describe what you learned from the discussion. For example, did you get ideas about how to use your strategy more effectively; did you hear of a new strategy that you like better?
  - c. Now solve the problem in your own way.
  - d. Listen to how other students solved the problem. Note any ideas that you heard that you would like to remember, such as specific strategies for solving this problem or tools that might help in other kinds of problems too.
2. How many rectangles of any size are in the figure at the right?
  - a. Discuss your interpretations of this question with other members of your group. That is, what does the question mean? Write your present interpretation.
  - b. Solve the problem in your own way. Can you apply strategies you learned when determining the number of squares, or do you have to develop new strategies?
  - c. Listen to how other students solved the problem. Note any ideas that you heard that you would like to remember, such as specific strategies for solving this problem or tools that might help in other kinds of problems too.