

## Miles of Tiles

### Level E

Your boss is proud of how you handled the overstocked tile problem. Your boss wants to know your secret, so the boss has given you the following job:

Write a memo to your boss that answers the following questions:

- Given any number of large squares and small square tiles, how can you create enough rectangular tiles to make various rectangular configurations?
- Given a specific number of large squares, small squares, and rectangles, can you always make a rectangular configuration from those tiles? If so, why, and if not, how would you know for sure?
- Can you make rectangular configurations given any number of large and small squares? Explain why or why not.

Remember your tiling career hangs in the balance, so you need to use mathematics to explain your reasoning.

