

## Multiplication Strings Task

1. Solve this set of multiplication equations. Each time you solve a new equation, try to use the previous equation to help you solve it. Note your reasoning for each step.

$$8 \times 4 = \underline{\quad}$$

$$8 \times 8 = \underline{\quad}$$

$$8 \times 16 = \underline{\quad}$$

$$8 \times 32 = \underline{\quad}$$

$$8 \times 64 = \underline{\quad}$$

2. Reflect on the sequence of equations. What are some patterns you notice? Why might these patterns occur?
3. To solve  $8 \times 8$ , Nicholas, a third grade student, explained that he knew that 8 times 4 would be 32 so he just added 32 and 32 to get the answer. Show how you, as the teacher, might represent his reasoning with an area model. How does his strategy utilize properties of the operations?