Name _____

Reteaching
8-10

Problem Solving: Make and Test Generalizations

When you make a generalization, you make a broad statement about something that a group has in common. A generalization helps you find patterns. When you make a generalization, it is important to test it to be sure it is correct.

Example: $1 \times 24 = 24$ $1 \times 93 = 93$
$1 \times 126 = 126$

Generalization: A number multiplied by 1 is itself.

Test: If I multiply a different number by 1, it is also equal to itself. For example, $1 \times 2 = 2$; $1 \times 3 = 3$; $1 \times 4 = 4$, etc.; any number multiplied by 1 is itself.
My generalization is correct.

In some cases, it is possible to find more than one correct generalization:

Example: Jessica found a red pencil, 3 red pens, and 2 red markers in her backpack.

Generalization #1: The things Jessica found are all writing instruments.

Generalization #2: The things Jessica found are all red.

Test: I can write with a pencil, a pen, and a marker. Also, the pencil, the pens, and the marker are all red. My generalizations are correct.

1. Randy has 2 tennis balls, 6 marbles, and 1 orange in his desk drawer. What generalization can you make about these things?

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2. This week, Sandy was out sick on Monday and Tuesday. Last week, Jared was out sick on Thursday and Friday. The week before, Elisa was out sick on Wednesday and Thursday. What generalization can you make about these three students' absences? Can you make a second generalization?

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3. Write down the multiples of 15, 20, and 25. What generalization can you make about all multiples of 5?

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