



## Problem of the Week Problem A and Solution Candy Crunch

## Problem

Carissa bought a box of candy to share with her friends. However, when she opened the box there was much less candy than she expected. The box says it contains a total of 420 grams of candy. In the box, there are two types of candies: Sour Sassies and Caramellos. Each Sour Sassy has a mass of 15 grams and each Caramello has a mass of 10 grams.

If she counts 10 Sour Sassies and 25 Caramellos in the box, was the information on the box correct? Justify your answer.

## Solution

Since the Sour Sassies each have a mass of 15 grams and there are 10 Sour Sassies, we can use skip counting to calculate the total mass of the Sour Sassies:

Alternatively, we can multiply to determine the total mass of the Sour Sassies is  $10 \times 15 = 150$  grams.

Since the Caramellos each have a mass of 10 grams and there are 25 Caramellos, we can use skip counting to calculate the total mass of the Caramellos:

$$10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150,$$

$$160, 170, 180, 190, 200, 210, 220, 230, 240, 250\\$$

Alternatively, we can multiply to determine the total mass of the Caramellos is  $25 \times 10 = 250$  grams.

The total mass of both candies is 250 + 150 = 400 grams. This is less than the mass shown on the box, so the information on the box is incorrect.