

In the mean time, here's a Halloween problem to discuss with your family and friends.

You have a half-pound bag of candy, and a separate bunch of assorted candies from trick-or-treating. You want to have a total of 1 pound of candy, and you plan to give the rest to your math circle friends.

The problem you face is that you have an unbalanced scale: You're able to put the half-pound bag on the left pan of your scale and enough candy in a pile on the right pan so the scale balances, but you don't know that the right pile is  $\frac{1}{2}$  pound, because your scale isn't working correctly!

You do the same thing again, but with the half-pound bag on the right pan, piling on the candy in the left pan until the scale balances them. But again, your scale isn't working properly, so you don't know that the pile you made (this time in the left pan) is  $\frac{1}{2}$  pound!

Your Halloween challenge: Find a way to use your broken scale to weigh out exactly 1 pound of candy - so you have just enough until next Halloween without getting sick.

We'll share all of our conjectures/solutions next week!