Million Dollar Question

The Task

Your friend has sent you a text saying you can become a millionaire! He tells you that he won $2 million in a contest. The money was sent to him in two suitcases, each containing $1 million in one-dollar bills. He will give you one suitcase of money if you can go to the airport and pick up both suitcases. Is it possible that you could get the suitcases at the airport and get them home?

Big Ideas

- Estimation of weight and/or volume
- Calculation of weight and/or volume
- Measurement

Standards of Learning for Grades 3-4-5

3.9 The student will estimate and use US Customary and metric units to measure
  a) length b) liquid volume c) weight/mass d) area and perimeter.

4.6a The student will estimate and measure weight/mass.

5.8d The student will estimate and then measure to solve problems using US Customary and metric units.

Standards of Learning for Grades 6-7-8

6.9 The student will make ballpark comparisons between measurements in US Customary System and metric system.

6.10 The student will describe and determine the volume of a rectangular prism.

7.4 The student will solve multistep practical problems, using proportional reasoning.

7.5b The student will solve practical problems involving the volume of rectangular prisms.

8.3a The student will solve practical problems involving rational numbers, percents, ratios, and proportions.

8.7a The student will investigate and solve practical problems involving volume of prisms.

Process Goals

- Problem Solving and Reasoning – Students will apply volume, weight, and estimation skills and the relationships between them to determine if $1,000,000 will fit in a suitcase and if it reasonable to carry a suitcase filled with that amount of money.
- Connections and Representations – Students will recognize and use mathematical connections to extend or generalize patterns. Students will use abstract or symbolic representation to record and their findings and solve the problem.
- Communication – Students will justify their findings and present their results to the class with precise mathematical language.

Related Task – Birthday Balloon Bash

Mr. Al Gebra's class wanted to surprise him on his birthday by filling his classroom with balloons. How many balloons did they need?

Related Task – Bucket of Trouble

The ceiling of Betty's kitchen has a leak. She hears 10 drips of water in 15 seconds. She puts a bucket under the leak and frantically calls the plumber. The plumber can't be there for 5 hours. Will Betty need to empty the bucket? How much water will she waste?