STUDENT MATERIALS

A family is moving to a new house. They packed up their belongings and filled a bunch of boxes. Now, they need to figure out which size truck to rent.

Task 1

The truck company sent you the following specifications of each truck. You need to start by finding the overall volume of each truck. Using the measurements they provided in the chart, find the volume that each truck can hold.

474.24
820.8
1067.04
1198.368

Type of Truck	Measurements	Capacity in Cubic Feet
12' Moving Truck	12' x 6.5' x 6.08'	474.24
15' Moving Truck	15' x 7.6' x 7.2'	820.8
20' Moving Truck	19.5' x 7.6' x 7.2'	1069.04
22' Moving Truck	21.9' x 7.6' x 7.2'	1198.368

Task 2

Before you can find the overall volume of your boxes you will need to find the volume of each size (small, medium, large, extra-large). Don't forget the quantity of each box used. Be sure to show your work and how you calculated the overall volume.

Box Dimensions

110

Box Size	Number of Individual Boxes	Dimensions	Capacity in Cubic Feet Per Box	Total Cubic Feet Per Box Type
Small	110	1.3' x 1' x 1' = 13	1.3	143
Medium	80	1.5' x 1.3' x1.5'	2.925	234
Large	36	1.5 x 1.5' x 2'	4.5	162
Extra Large	70	2' x 1.6' x 2'	6.4	448

Task 3

Which moving truck would you choose? Explain your rationale and be sure to use data to justify your answer.

The 20' moving truck because if you add all the box's cubic feet it would be more than the 12 and 15 moving truck in capacity.

Task 4

At the last minute, the family decided to bring their 10'x8'x5' outdoor storage container with them. Would this fit in the truck that you selected? Explain and show your work.

No, it would fit in none of the moving trucks because we had already 987 if we add all the box's together, but if we add the 10'x8'x5' that is 400 which 400+987=1387 and the highest capacity moving truck is 1198,368 So it is way over the box's