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.

Type of Truck	Measurements	Capacity in Cubic Feet
12' Moving Truck	12' x 6.5' x 6.08'	474.24 ft³
15' Moving Truck	15' x 7.6' x 7.2'	820.8 ft³
20' Moving Truck	19.5' x 7.6' x 7.2'	1067.04 ft³
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

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'	1.3 ft³	143 ft³
Medium	80	1.5' x 1.3' x1.5'	2.925	234 ft³
Large	36	1.5 x 1.5' x 2'	4.5	162 ft³
Extra Large	70	2' x 1.6' x 2'	6.4	448 ft³

987 ft³

Task 3

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

I would choose the 20' moving truck because if they need to pack a little more they will have enough room because the truck is 1067.04 ft and all of the boxes together ar 987 ft so They will have enough room and the other trucks ar 474.24, 820.8 an 1198.36 so I would choose the 1067.04ft truck.

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.

10x8x5 = 400 + 987 = 1387' No it would not because if they did they would need a truck that had 1387' and the truck I chose only had 1067.04' so They would not be able to.