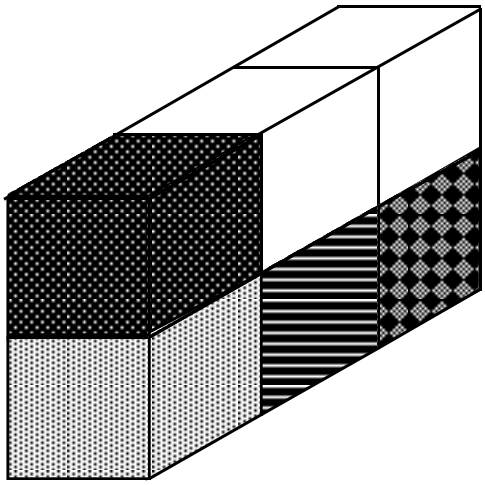
VOLUME AND SURFACE AREA

1. Yolanda is asked to unpack a truck which has boxes stacked 3 across, 6 high, and 8 deep. Each box is 1 foot by 1 foot by 1 foot. She must put them in a space on the floor which is 4 boxes by 4 boxes. How many boxes high will the stack be?



2. Suppose she is asked to put them in a square one box high. What is the size (in boxes) of the square shape they will take up?

3. Yolanda is asked to make two separate stacks of boxes. In one room there is a 3 foot by 8 foot space and in another room there is a 4 foot by 6 foot space. She is asked to put the same number of boxes in each room. How high will each stack be?

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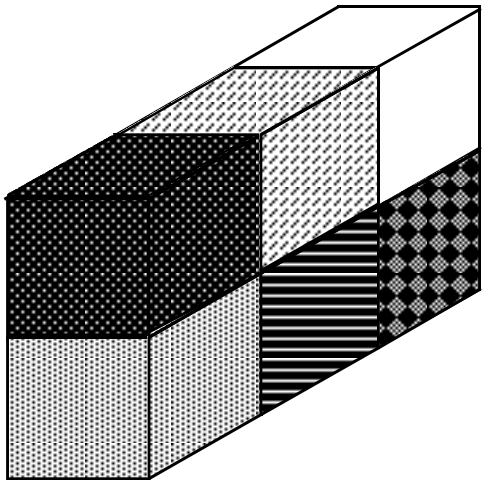
5. Yolanda found that the warehouse had no more room for boxes so she stacked a truckload of boxes outside. The stack was 6 feet high, 10 feet wide, and 8 feet long. Yolanda needed a rectangular tarp to cover the boxes for protection. What size tarp will she need?



6. Yolanda had a box that was 3 feet high, 4 feet long, and 2 feet wide that she had to wrap for packaging. She discovered that the wrapping paper came in squares that were 1 foot wide and 1 foot long. How many squares of wrapping paper would Yolanda need to get to wrap the package if she did not want the paper to overlap?

7. Yolanda had another box to wrap that was feet high, 5 feet long, and 3 feet wide. How many pieces of the wrapping paper would she need to wrap this box if she again wanted no over lapping?

8. Yolanda had 120 boxes that were 1 foot by 1 foot by 1 foot that again had to be stacked outside and covered with a rectangular tarp. How can Yolanda stack the boxes? What size tarp will she need to cover the boxes? What is the smallest rectangular tarp that Yolanda could get to cover the 120 boxes?