

5.2 Scaling up the Compost Box

Name: _____ Period: _____ Date: _____

B. How is the change in surface area from a 1-2-3 box to a similar box related to the scale factor from the 1-2-3 box to the similar box?

Suppose the compost box has a top. Will your answer change? Explain in 2-3 sentences.

C. How is the change in volume from a 1-2-3 box to a similar box related to the scale factor from the 1-2-3 box to the similar box? Explain in 2-3 sentences.

E. Suppose the scale factor between the 1-2-3 box and a similar box is N . Describe the dimensions, surface area, and volume of the similar box in 2-3 sentences.

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Launch

- **Similar:** Two rectangular prisms are similar if the ratios of the lengths of the corresponding edges are equal.

What is the relationship between the corresponding dimensions of the two boxes? (Compare the edges: length, width, and height)

What is the relationship between the surface areas of the two boxes? (Compare the total surface areas).

What is the relationship between the volumes of the two boxes? (Compare the total volume of each box).