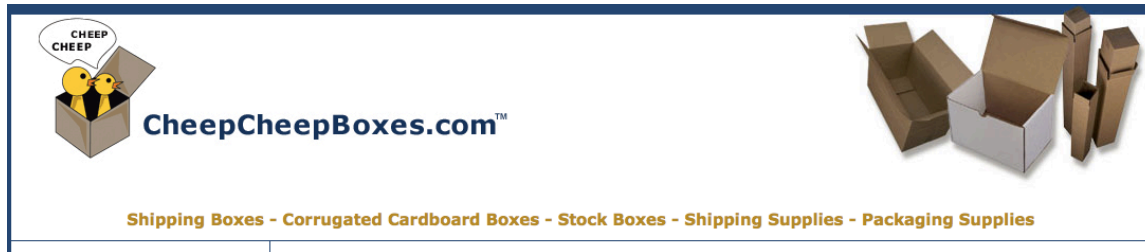


Student Resource Sheet 6.G.2 Answer Key



CheepCheepBoxes.com sells boxes in many different sizes. Three of them are listed below.

How many $\frac{1}{4}$ -inch cubes could fit in each box? Explain your reasoning.

$$3\frac{3}{4}'' \times 3\frac{3}{4}'' \times 1\frac{1}{2}''$$

There are 64 $\frac{1}{4}$ -inch cubes that make up a 1-inch cube ($4 \times 4 \times 4$)

$$3\frac{3}{4}'' \times 3\frac{3}{4}'' \times 1\frac{1}{2}'' \times 64 = 1,350$$

You can fit **1,350** $\frac{1}{4}$ -inch cubes in a box that is $3\frac{3}{4}'' \times 3\frac{3}{4}'' \times 1\frac{1}{2}''$

$$3\frac{1}{2}'' \times 3\frac{1}{2}'' \times 1\frac{1}{2}''$$

There are 64 $\frac{1}{4}$ -inch cubes that make up a 1-inch cube ($4 \times 4 \times 4$)

$$3\frac{1}{2}'' \times 3\frac{1}{2}'' \times 1\frac{1}{2}'' \times 64 = 1,176$$

You can fit **1,176** $\frac{1}{4}$ -inch cubes in a box that is $3\frac{1}{2}'' \times 3\frac{1}{2}'' \times 1\frac{1}{2}''$

$$4'' \times 3\frac{3}{4}'' \times 1\frac{1}{4}''$$

There are 64 $\frac{1}{4}$ -inch cubes that make up a 1-inch cube ($4 \times 4 \times 4$)

$$4'' \times 3\frac{3}{4}'' \times 1\frac{1}{4}'' \times 64 = 1,200$$

You can fit 1,200 $\frac{1}{4}$ -inch cubes in a box that is $4'' \times 3\frac{3}{4}'' \times 1\frac{1}{4}''$