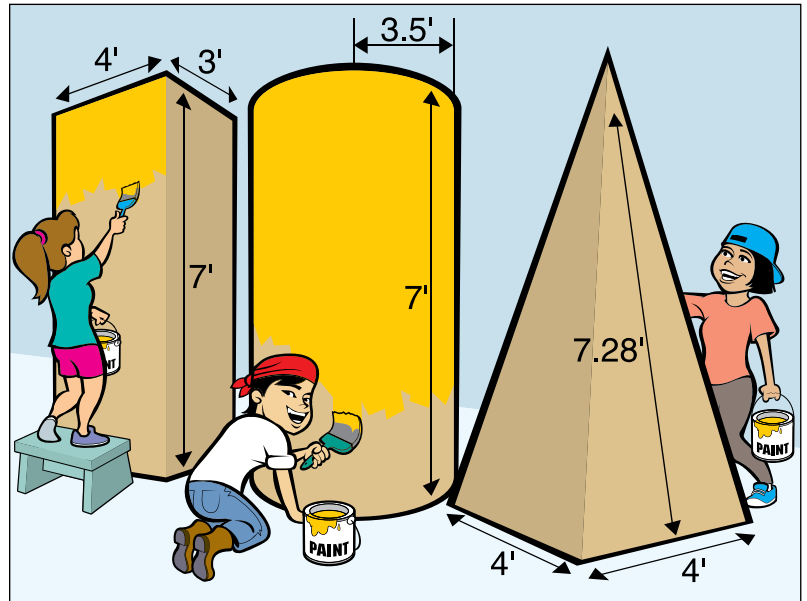


That Should Cover It!

The Geometrics band loves shapes. For their upcoming concert, the three main players each want to emerge from human-size shapes of a rectangular prism, a cylinder, and a square pyramid. While they already have these props built, the band asks the Geometrics Stage Crew to paint over them completely (even the bottom of each object). The stage crew knows that 1 gallon of paint covers 350 square feet. To buy the right amount of paint, **the stage crew has to calculate the surface area of each shape.**



- 1 The dimensions of the rectangular prism for the lead guitarist are: height = 7 feet, width = 4 feet, and length = 3 feet.
Surface Area =
- 2 The dimensions of the cylinder for the drummer are: radius = 3.5 feet and height = 7 feet. Solve with a decimal, then also round to the nearest half foot.
Surface Area =
- 3 The dimensions of the square pyramid for the bass player are: base length = 4 feet, base width = 4 feet, and slant height = 7.28 feet. Solve with a decimal, then also round to the nearest half foot.
Surface Area =
- 4 Can the Geometrics Stage Crew paint the surface area of all three shapes with just one can of paint?

BONUS:

Your classmate Claudine said that she has her own method for calculating the surface area of a square pyramid. "My formula is $SA = b^2 + 4(\frac{1}{2} \times b \times h)$, where b equals a side length of the base and h equals the slant height." On a separate piece of paper, tell whether you agree with Claudine or not. Explain your thinking.