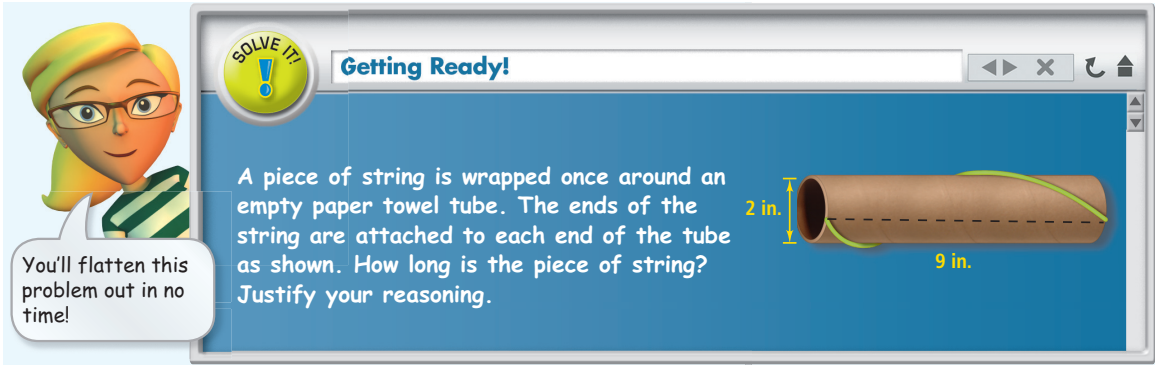
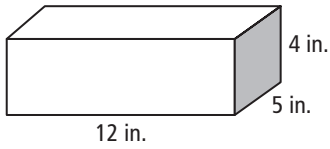
11-2 Solve It!

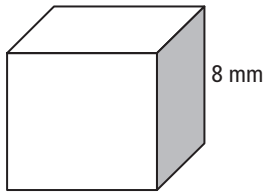


11-2 Lesson Quiz

1. What is the surface area of the shoe box with the dimensions shown? Use a net.



2. What is the surface area of a cube with 8 mm sides?



3. Do you UNDERSTAND? The pillars in front of Mr. Jefferson's home are shaped like cylinders with a height of 24 ft and a radius of 8 in. What is the lateral area of each pillar?

Answers

Solve It!

$\approx$ 11 in.; The net of the tube is a rectangle 9 in. (length of the tube) by 2π in. (circumference). The string wraps around once, so it is a diagonal of the rectangle. Use the Pythag. Thm. to find the string's length:
$\sqrt{9^2 + (2\pi)^2} \approx \sqrt{81 + 39.48}$
$\approx$ 11 in.

Lesson Quiz

1. 256 in.^{2}
2. 384 mm^2
3. about 100.5 ft^2