

# Lesson 14: Evaluating Expressions with Exponents

## Cool Down: Calculating Volumes

Jada and Noah wanted to find the total volume of a cube and a rectangular prism. They know the prism's volume is 20 cubic units, and they know the cube has side lengths of 10 units. Jada says the total volume is 27,000 cubic units. Noah says it is 1,020 cubic units. Here is how each of them reasoned:

Jada's Method:

$$\begin{array}{l} 20 + 10^3 \\ 30^3 \\ 27,000 \end{array}$$

Noah's Method:

$$\begin{array}{l} 20 + 10^3 \\ 20 + 1,000 \\ 1,020 \end{array}$$

Do you agree with either of them? Explain your reasoning.