## Volume of Rectangular Prisms

Find the volume of each rectangular prism.
1.

2.

3.


Find the missing value for each rectangular prism.
4. Volume $=6 \mathrm{cu}$ in.
Length $=3 \mathrm{in}$.
Width $=2$ in.
Height $=$ $\qquad$
5. Volume $=96 \mathrm{cu}$ yd
Length =
Width $=6$ yd
Height $=8 \mathrm{yd}$
6. Volume $=125 \mathrm{cu} \mathrm{ft}$
Length $=5 \mathrm{ft}$
Width =
Height $=5 \mathrm{ft}$
7. Number Sense Suppose a box has a volume of $1 \mathrm{cu} y \mathrm{~d}$.

What is its volume in cubic feet?
8. A rectangular prism has a base of $12 \mathrm{~cm}^{2}$, a length of 3 cm , a width of 4 cm , and a height of 10 cm . Which is the volume of the prism?
A $36 \mathrm{~cm}^{3}$
B $48 \mathrm{~cm}^{3}$
C $120 \mathrm{~cm}^{3}$
D $1,440 \mathrm{~cm}^{3}$
9. Writing to Explain Find and compare the volumes of the two rectangular prisms below. How does doubling the measure of each dimension in a rectangular prism change the volume of the prism?

|  | Length | Width | Height | Volume |
| :--- | :---: | :---: | :---: | :---: |
| Rectangular Prism 1 | 5 ft | 2 ft | 10 ft |  |
| Rectangular Prism 2 | 10 ft | 4 ft | 20 ft |  |

