$\qquad$ Per: $\qquad$

1. Find the volume of the regular pentagonal pyramid
rounded to the nearest tenth.
2. Find the volume of a cone with base circumference of $6 \pi$ meters and a height equal to half the radius.
3. Compare the volume of a cone and the volume of a cylinder with equal height and base area.
4. Describe the effect on the volume if the dimensions are multiplied by $2 / 3$. State the factor by which the volume changed.

5. Describe the effect on the volume if the dimensions are multiplied by 3 . State the factor by which the volume changed.

6. A figure has a volume of $90 \mathrm{~cm}^{3}$. If all the dimensions in the figure are multiplied by 5 , what is the new volume of the figure?
7. A figure has a volume of $112 \mathrm{in}^{3}$. The dimensions are all reduced by the same amount to create a new figure that has a volume of $14 \mathrm{in}^{3}$. What factor was used to reduce the dimenions?
