

**Practice****7.1 Surface Area and Volume**

Determine the surface-area-to-volume ratio for a rectangular prism with the indicated dimensions. Show all of your steps.

1. $4 \times 4 \times 3$

2. $80 \times 1 \times 1$

3. $24 \times 24 \times 24$

4. $7 \times 9 \times 22$

5. $4 \times 16 \times 48$

6. $25 \times 14 \times 33$

Find the surface-area-to-volume ratio for each solid described below. Show all of your steps.

7. a cube with a surface area of 150 square units _____

8. a cube with a volume of 512 cubic units _____

9. a rectangular prism with dimensions $4 \times 4 \times 4$ _____

10. a cube with a volume of 8000 cubic units _____

11. a rectangular prism with dimensions $4 \times 1 \times 1$ _____

12. a cube with a volume of 216 cubic inches _____

13. a rectangular prism with a diagonal length of 19 and a base of 10×15 _____
