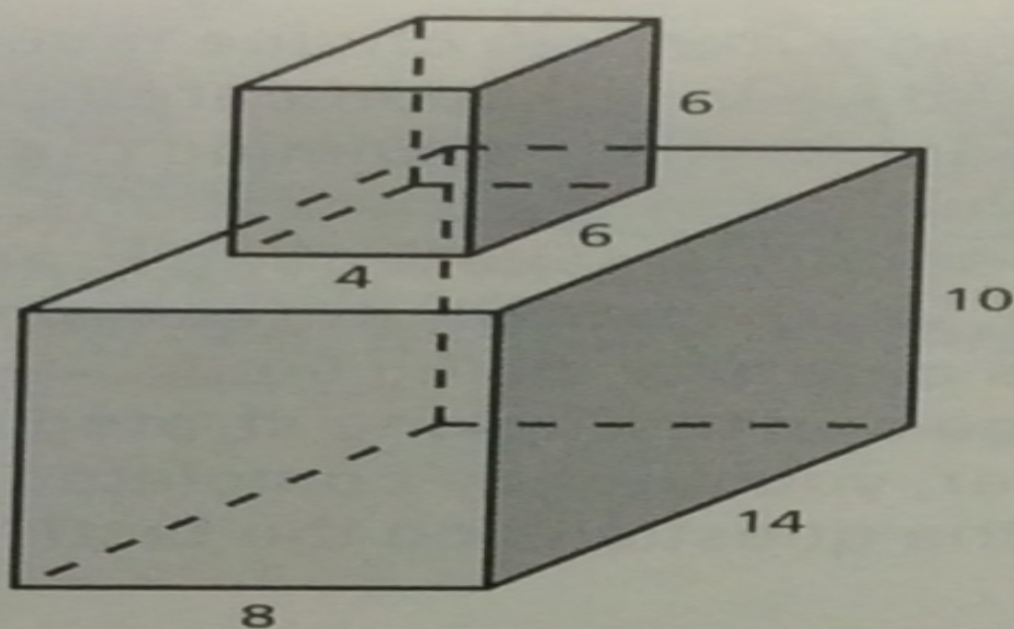
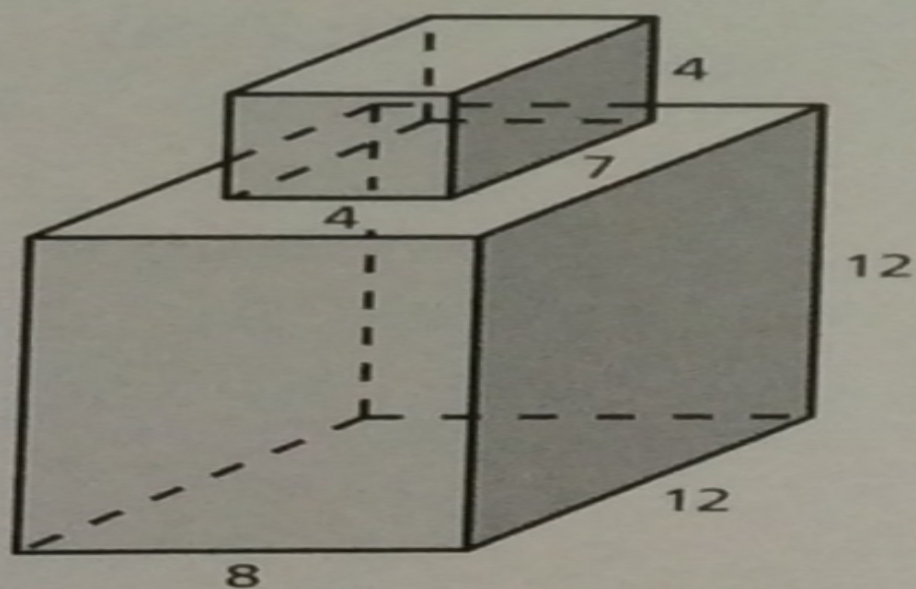


Answers

1. $12,000\pi \approx 37,699.1 \text{ mm}^3$
2. $4.5\pi \approx 14.1 \text{ cm}^3$
3. $\frac{8788\pi}{3} \approx 9202.8 \text{ ft}^3$
4. $552\pi \approx 1734.2 \text{ m}^3$
5. a. $\ell = 7.5 \text{ cm}$
b. 216 cm^2
6. cylindrical glass; about 6.2 in.^3
7. 42.7 in.^3
8. *Sample answer:*



$$V = 1264 \text{ cubic units}$$
$$S = 784 \text{ square units}$$



$$V = 1264 \text{ cubic units}$$
$$S = 760 \text{ square units}$$

9. Glass A
10. cube; The sphere could fit inside the cube and there would still be extra space outside the sphere but inside the cube.