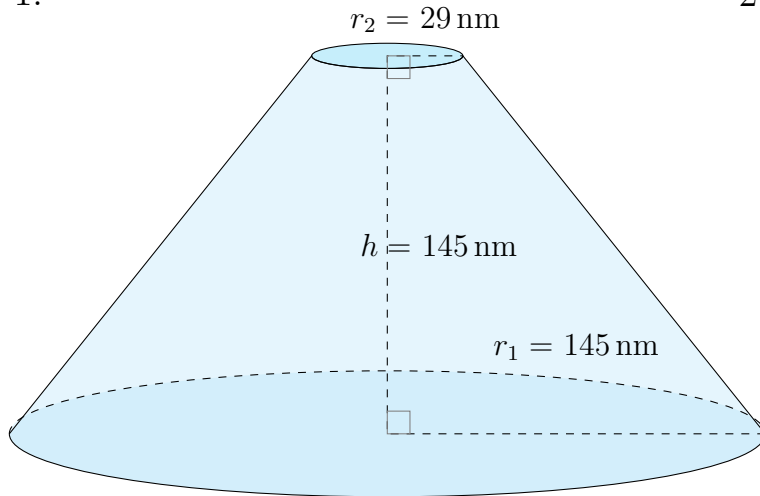


Surface Area and Volume of Conical Frustums (H)

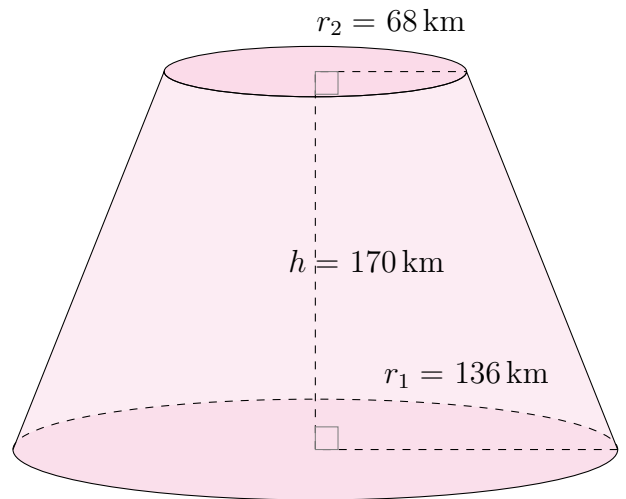
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi r_1^2 + \pi r_2^2 \quad \text{Volume} = \frac{\pi}{3}h(r_1^2 + r_2^2 + r_1 r_2)$$

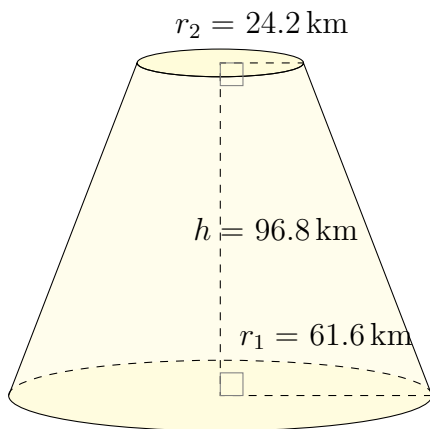
1.



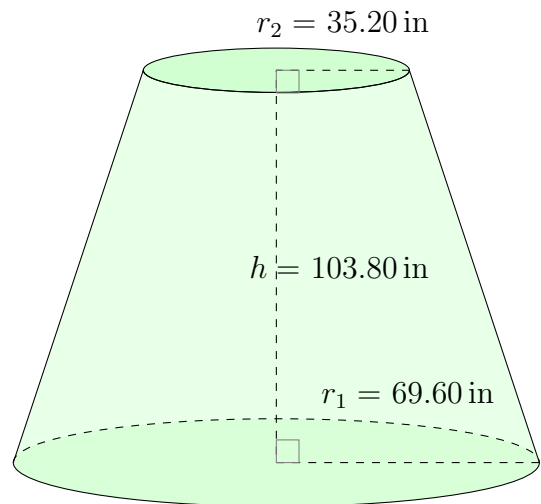
2.



3.



4.

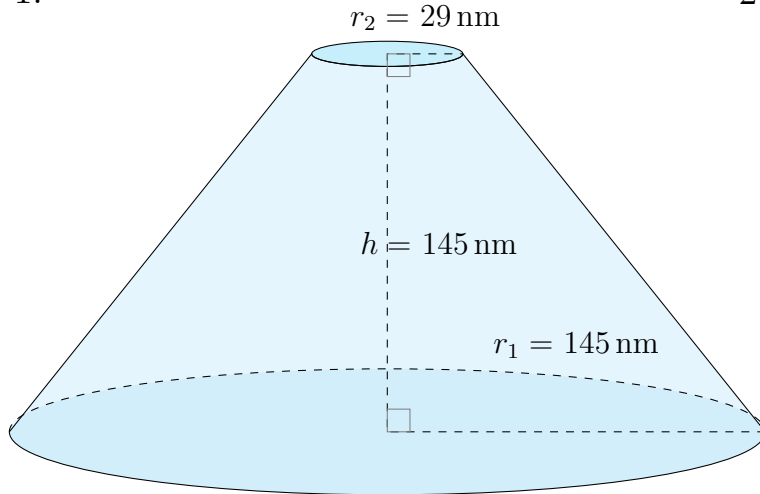


Surface Area and Volume of Conical Frustums (H) Answers

Calculate the surface area and volume for each conical frustum.

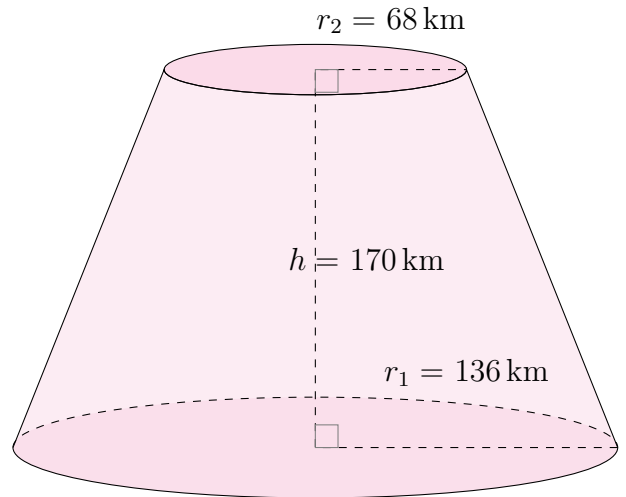
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi r_1^2 + \pi r_2^2 \quad \text{Volume} = \frac{\pi}{3}h(r_1^2 + r_2^2 + r_1 r_2)$$

1.



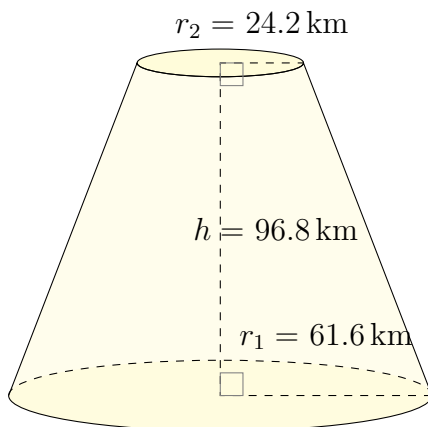
Surface Area: $170,199 \text{ nm}^2$
Volume: $3,958,716 \text{ nm}^3$

2.



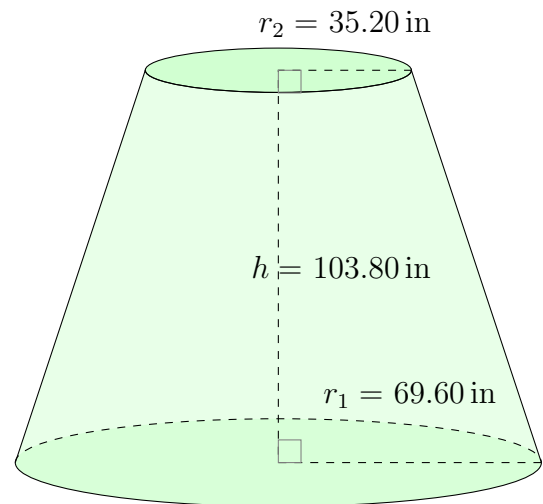
Surface Area: $189,977 \text{ km}^2$
Volume: $5,762,267 \text{ km}^3$

3.



Surface Area: $41,732.9 \text{ km}^2$
Volume: $595,127.7 \text{ km}^3$

4.



Surface Area: $55,113.78 \text{ in}^2$
Volume: $927,542.51 \text{ in}^3$