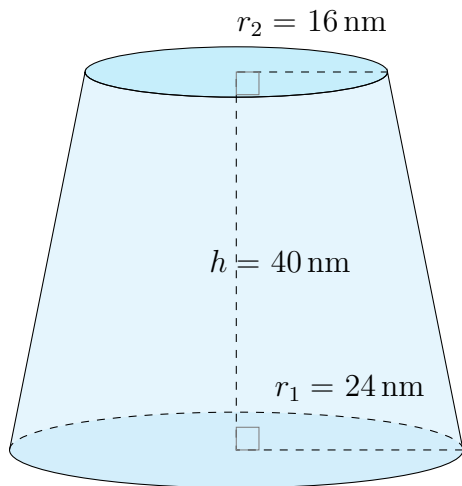


# Surface Area and Volume of Conical Frustums (A)

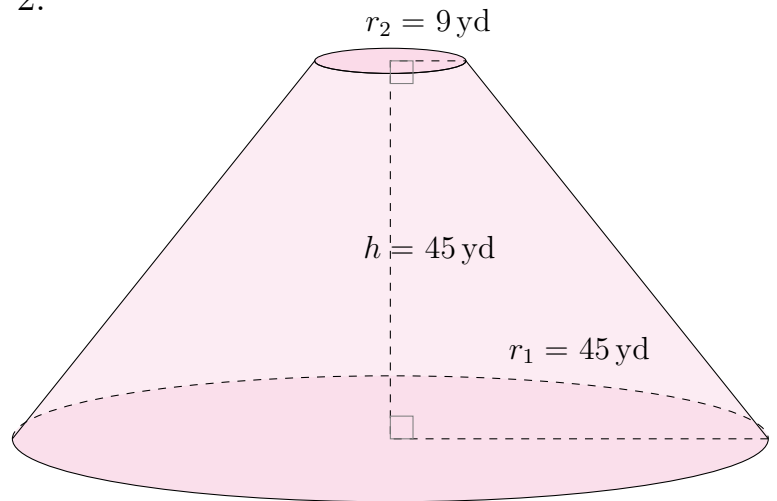
Calculate the surface area and volume for each conical frustum.

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

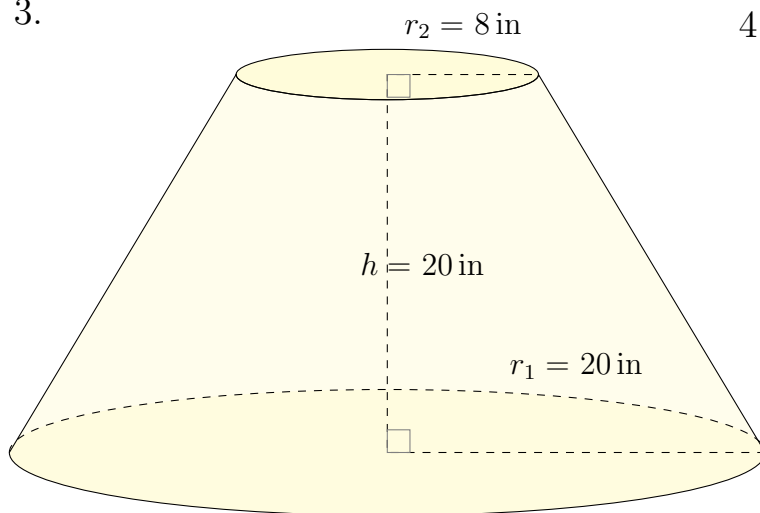
1.



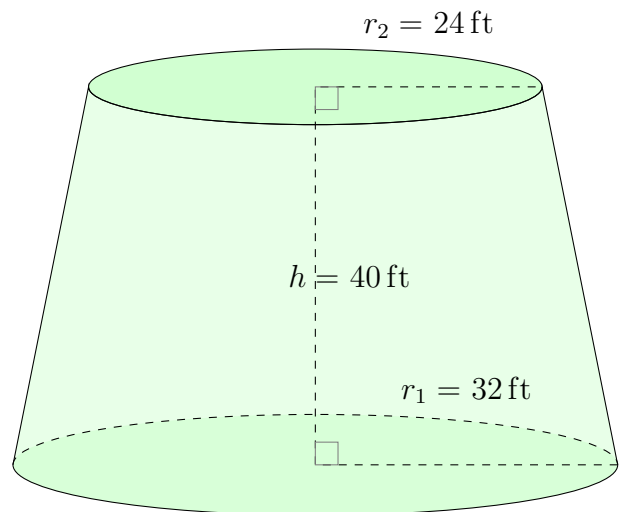
2.



3.



4.

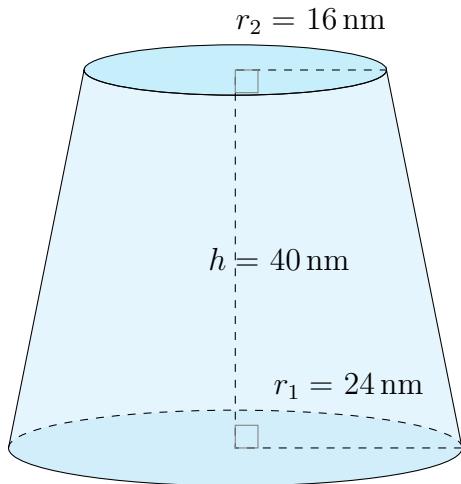


# Surface Area and Volume of Conical Frustums (A) Answers

Calculate the surface area and volume for each conical frustum.

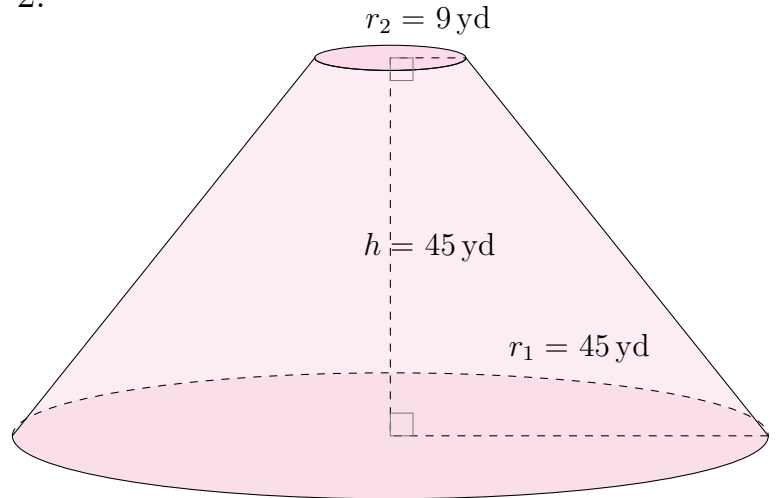
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi r_1^2 + \pi r_2^2 \quad \text{Volume} = \frac{\pi}{3}h(r_1^2 + r_2^2 + r_1 r_2)$$

1.



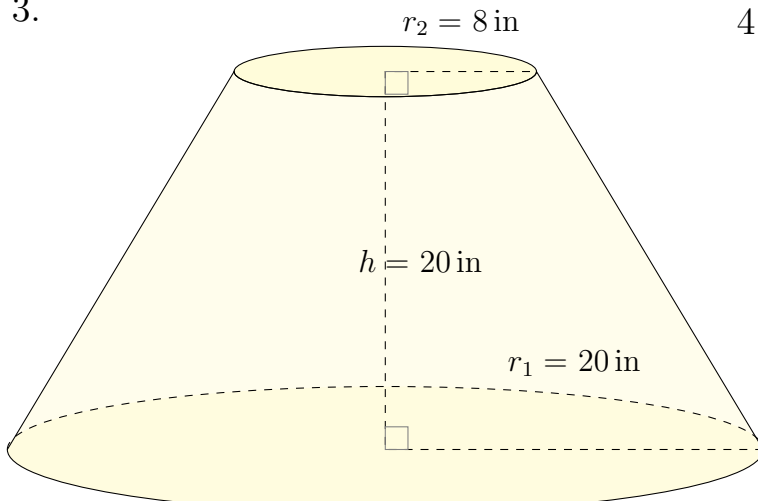
Surface Area:  $7740 \text{ nm}^2$   
Volume:  $50,936 \text{ nm}^3$

2.



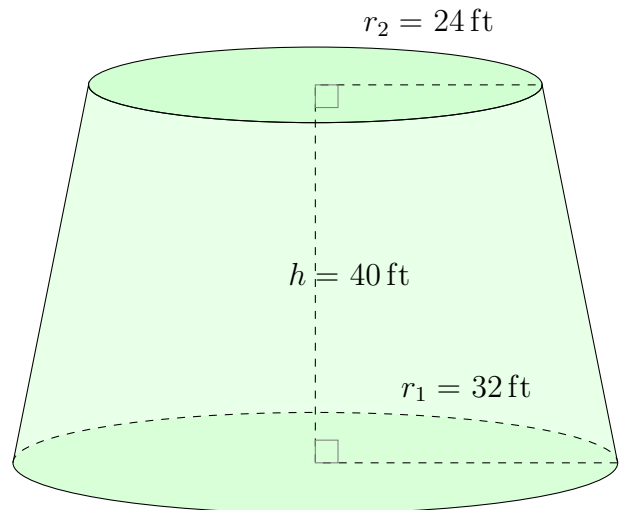
Surface Area:  $16,393 \text{ yd}^2$   
Volume:  $118,328 \text{ yd}^3$

3.



Surface Area:  $3509 \text{ in}^2$   
Volume:  $13,069 \text{ in}^3$

4.



Surface Area:  $12,203 \text{ ft}^2$   
Volume:  $99,191 \text{ ft}^3$