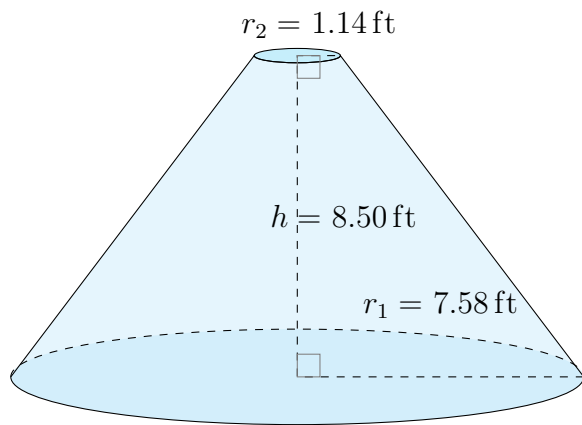


Surface Area and Volume of Conical Frustums (J)

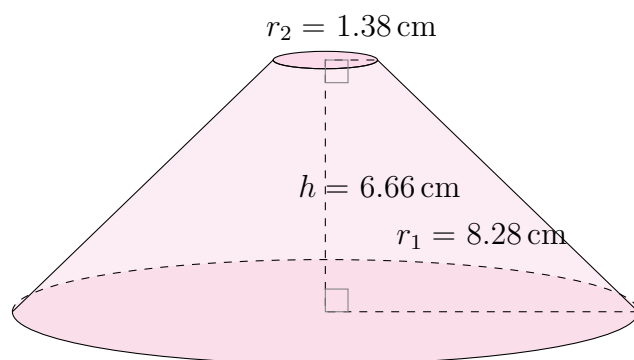
Calculate the surface area and volume for each conical frustum.

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

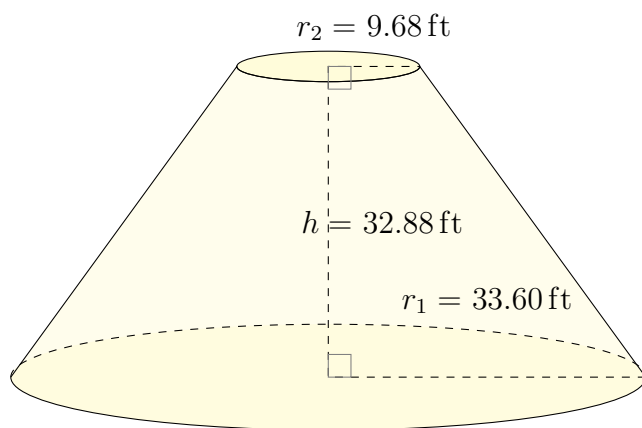
1.



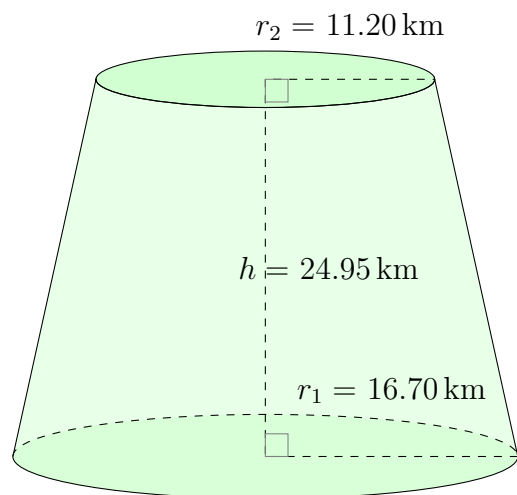
2.



3.



4.

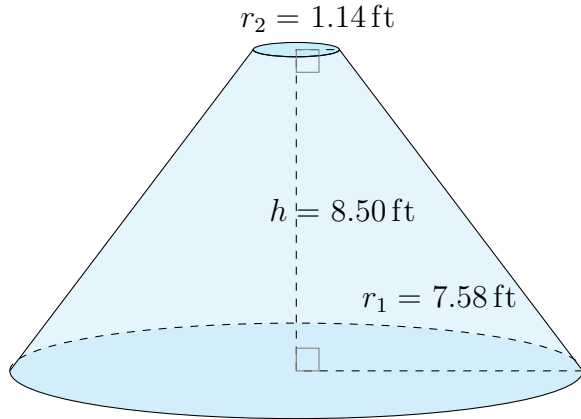


Surface Area and Volume of Conical Frustums (J) Answers

Calculate the surface area and volume for each conical frustum.

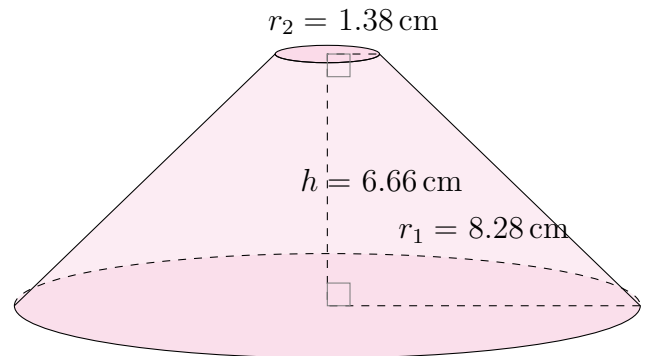
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi r_1^2 + \pi r_2^2 \quad \text{Volume} = \frac{\pi}{3}h(r_1^2 + r_2^2 + r_1 r_2)$$

1.



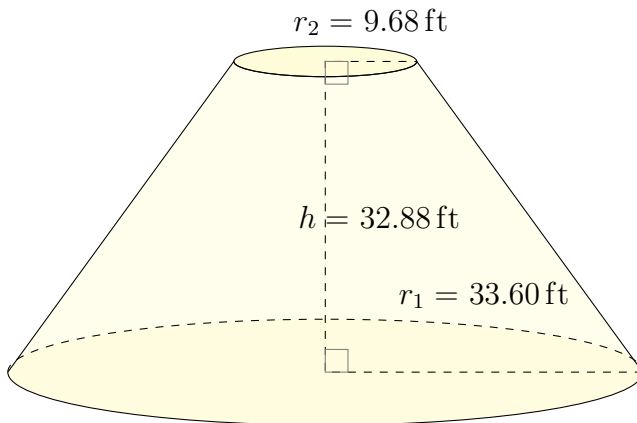
Surface Area: 476.73 ft^2
Volume: 599.91 ft^3

2.



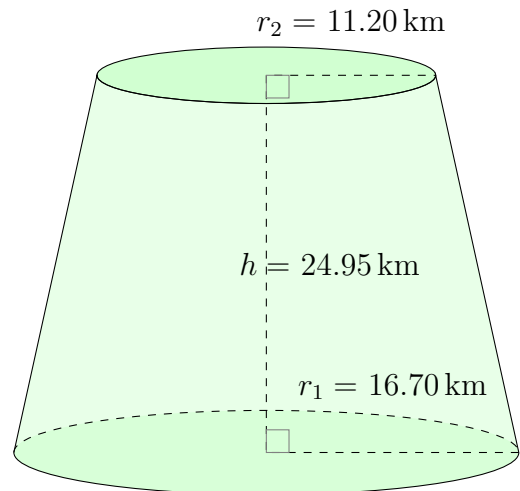
Surface Area: 512.40 cm^2
Volume: 571.12 cm^3

3.



Surface Area: 9369.61 ft^2
Volume: $53,297.43 \text{ ft}^3$

4.



Surface Area: 3509.62 km^2
Volume: $15,451.07 \text{ km}^3$