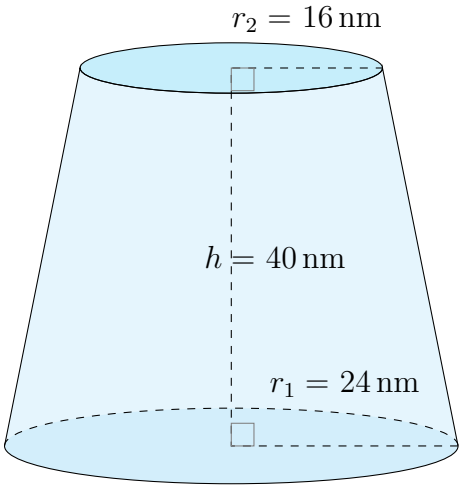
Surface Area and Volume of Conical Frustums (A)

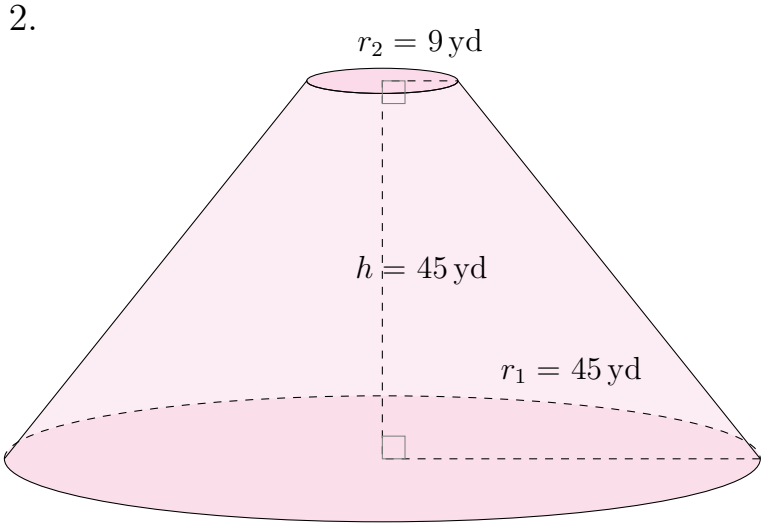
Calculate the surface area and volume for each conical frustum.

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

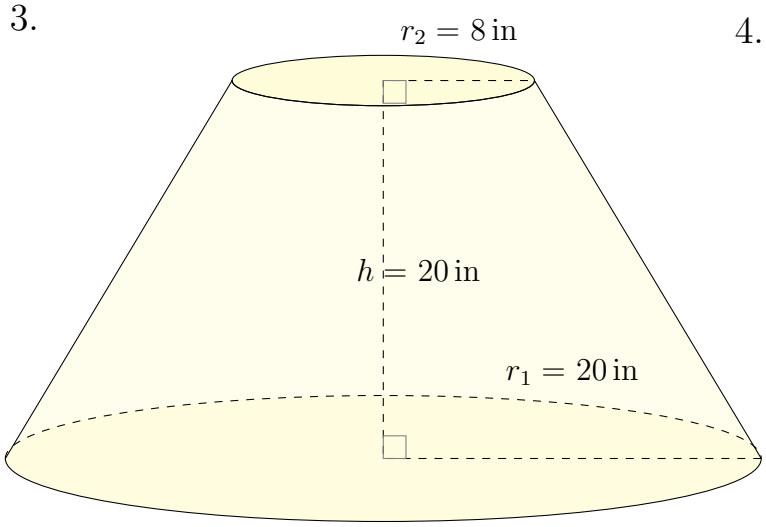
1.



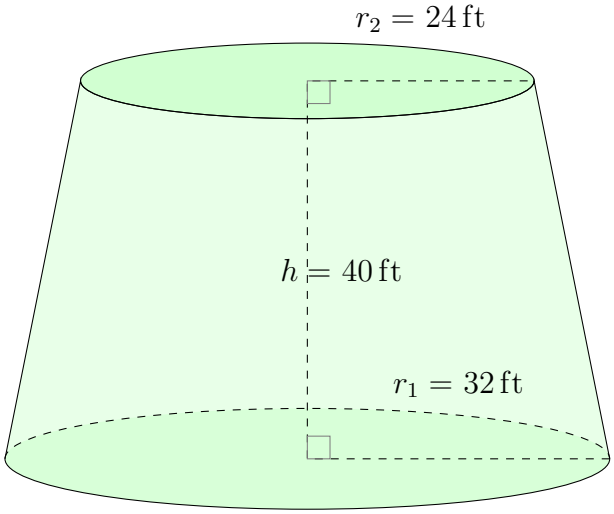
2.



3.



4.

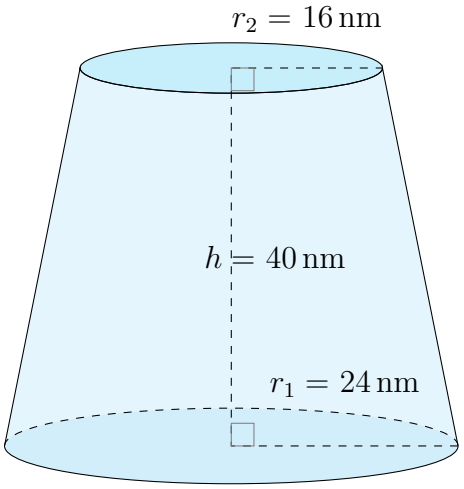


Surface Area and Volume of Conical Frustums (A) Answers

Calculate the surface area and volume for each conical frustum.

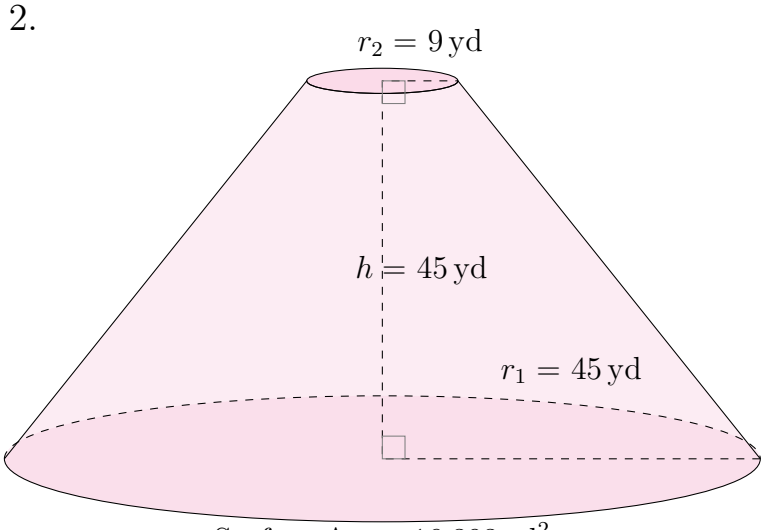
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



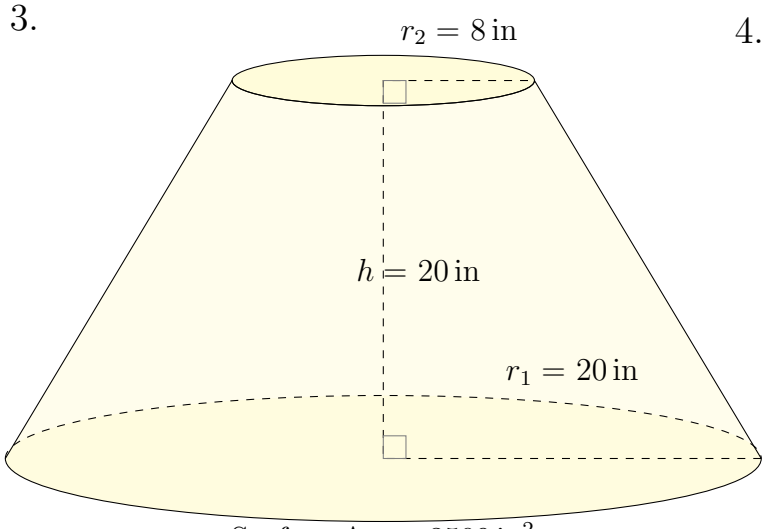
Surface Area: $7740\,\text{nm}^2$
Volume: $50{,}936\,\text{nm}^3$

2.



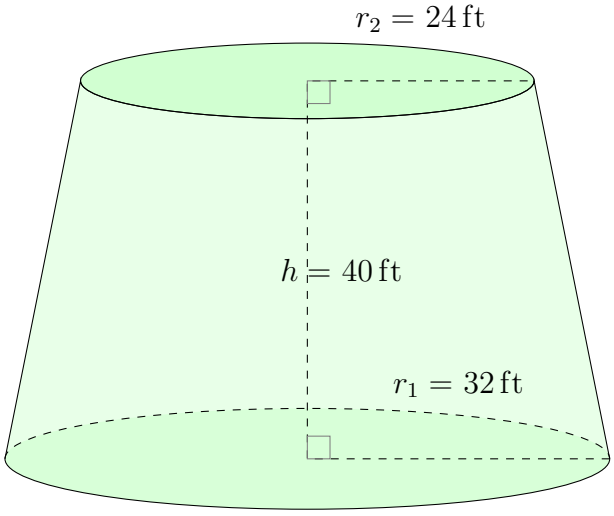
Surface Area: $16{,}393\,\text{yd}^2$
Volume: $118{,}328\,\text{yd}^3$

3.



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

4.



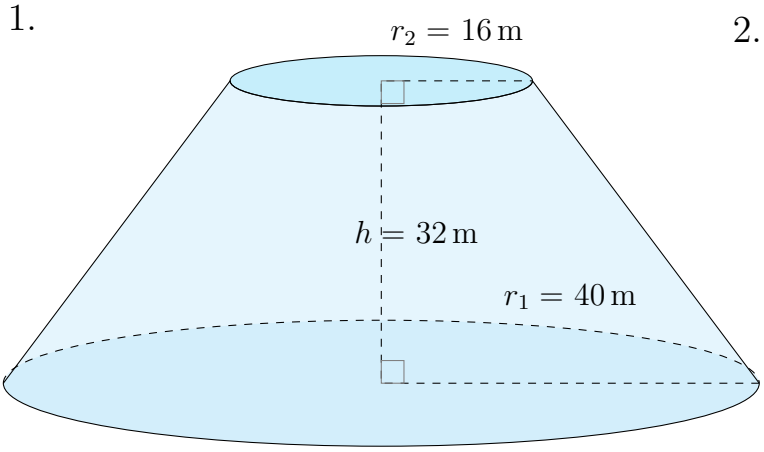
Surface Area: $12{,}203\,\text{ft}^2$
Volume: $99{,}191\,\text{ft}^3$

Surface Area and Volume of Conical Frustums (B)

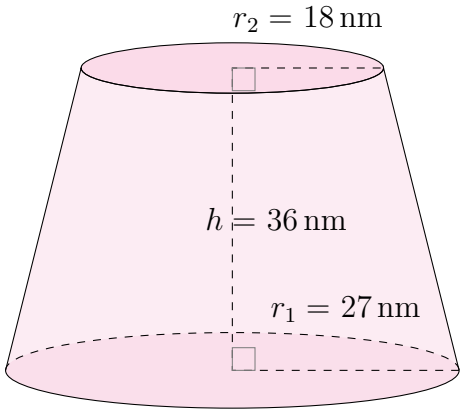
Calculate the surface area and volume for each conical frustum.

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

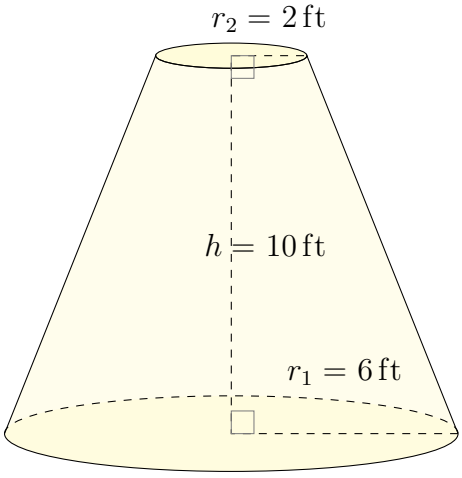
1.



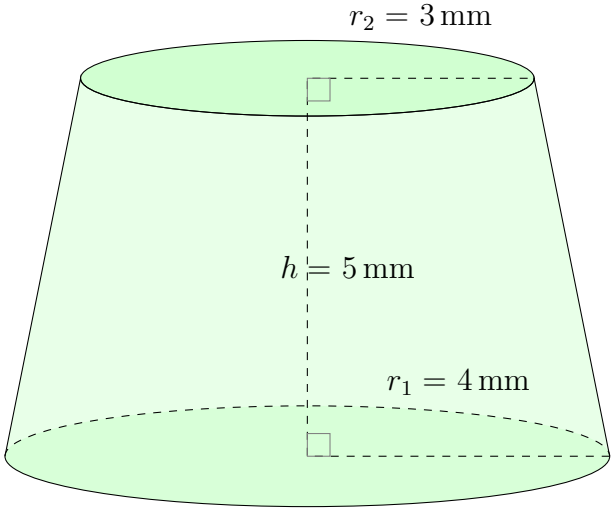
2.



3.



4.

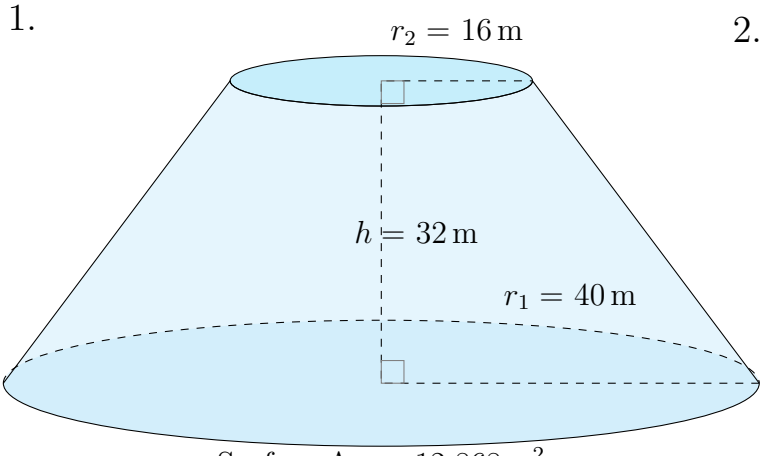


Surface Area and Volume of Conical Frustums (B) Answers

Calculate the surface area and volume for each conical frustum.

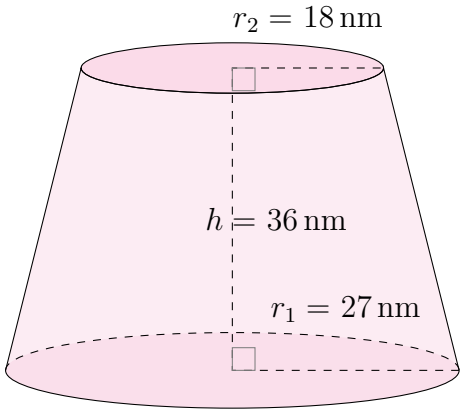
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



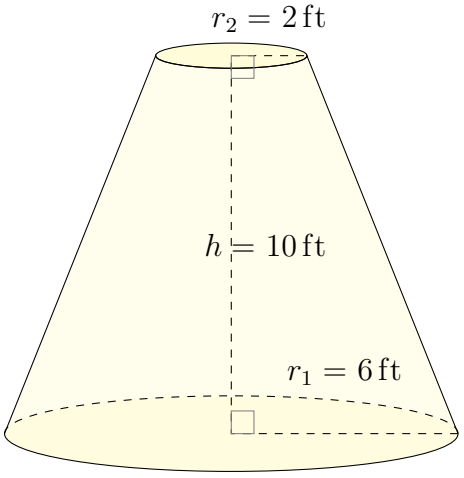
Surface Area: $12{,}868\,\text{m}^2$
Volume: $83{,}642\,\text{m}^3$

2.



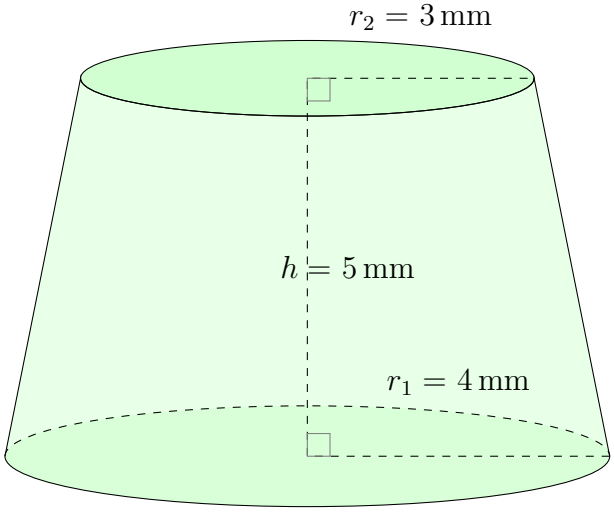
Surface Area: $8554\,\text{nm}^2$
Volume: $58{,}019\,\text{nm}^3$

3.



Surface Area: $396\,\text{ft}^2$
Volume: $545\,\text{ft}^3$

4.



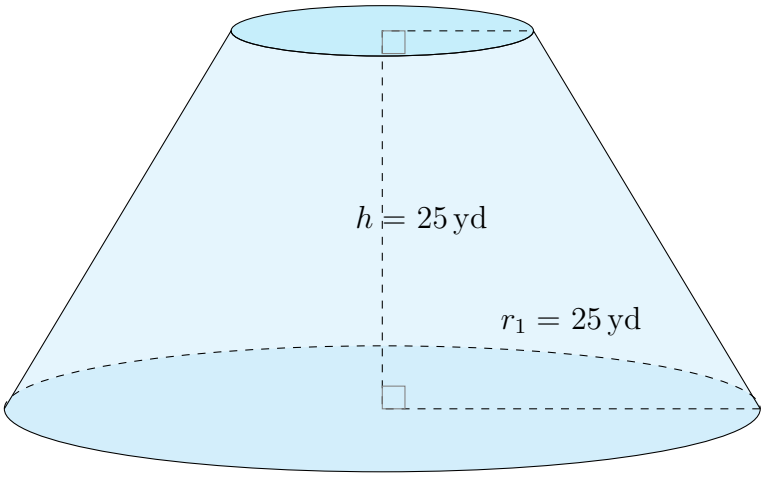
Surface Area: $191\,\text{mm}^2$
Volume: $194\,\text{mm}^3$

Surface Area and Volume of Conical Frustums (C)

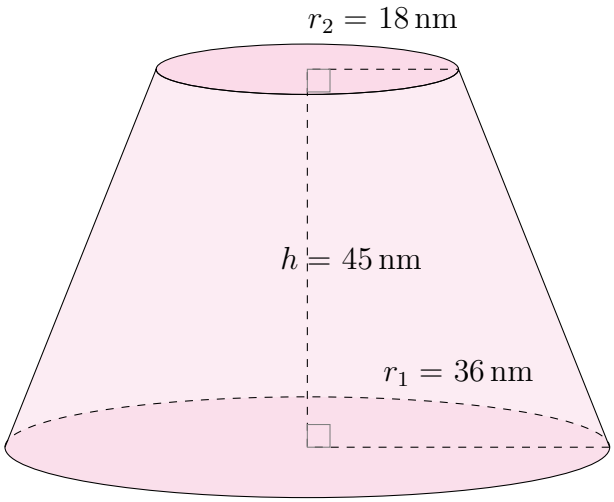
Calculate the surface area and volume for each conical frustum.

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

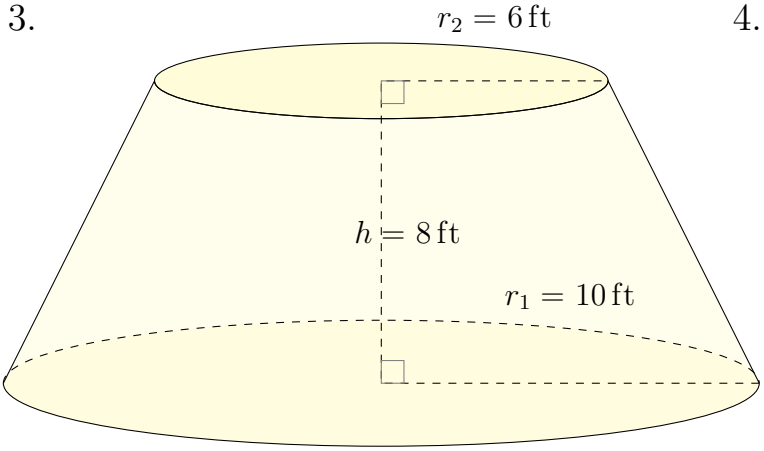
1.



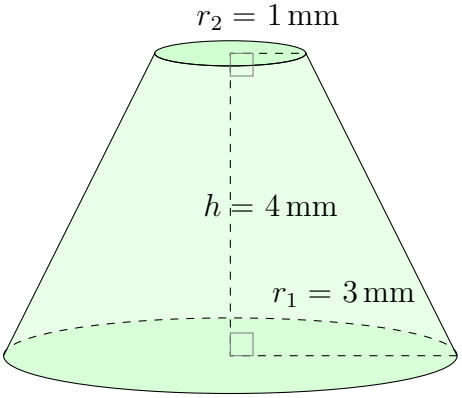
2.



3.



4.

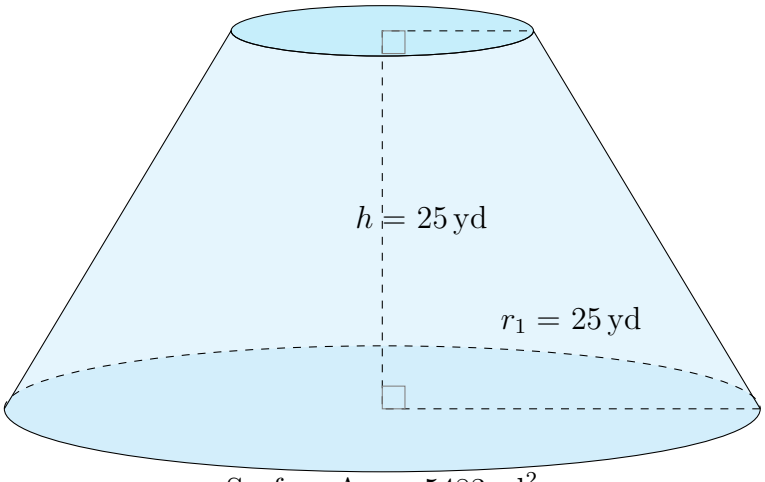


Surface Area and Volume of Conical Frustums (C) Answers

Calculate the surface area and volume for each conical frustum.

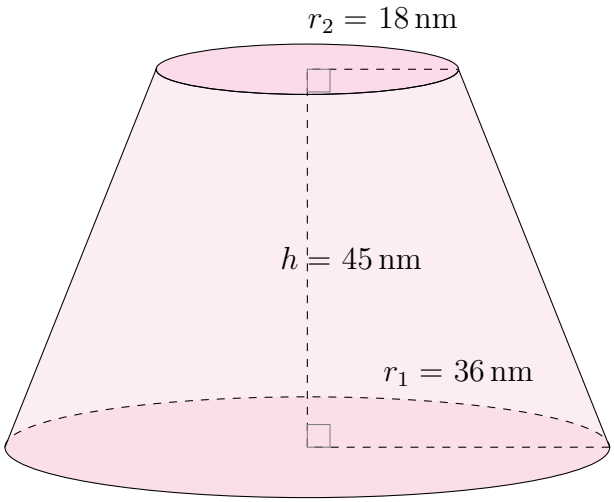
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



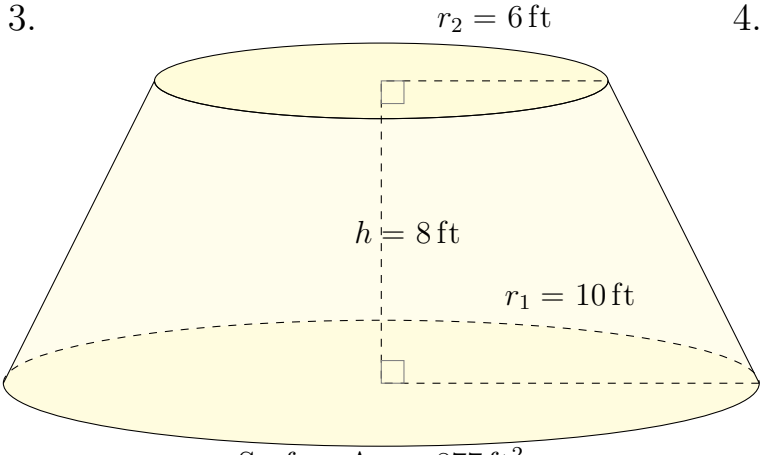
Surface Area: $5483\,\text{yd}^2$
Volume: $25{,}525\,\text{yd}^3$

2.



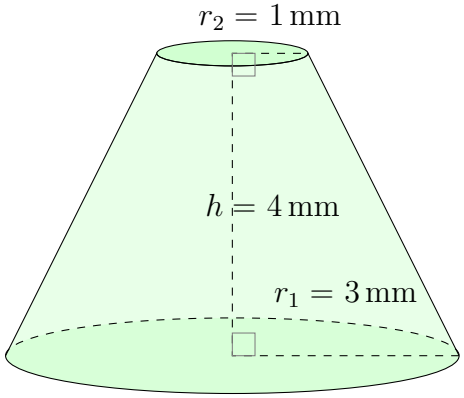
Surface Area: $13{,}312\,\text{nm}^2$
Volume: $106{,}877\,\text{nm}^3$

3.



Surface Area: $877\,\text{ft}^2$
Volume: $1642\,\text{ft}^3$

4.



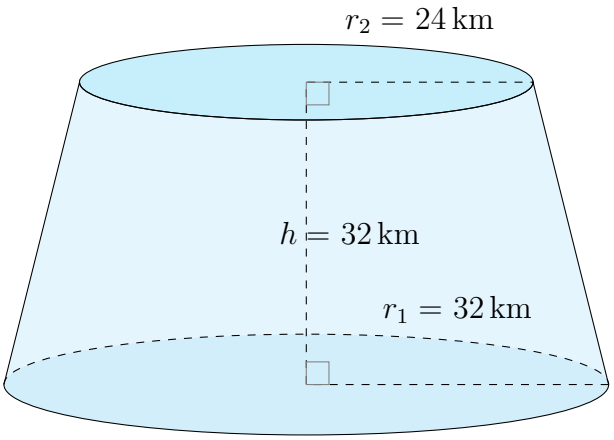
Surface Area: $88\,\text{mm}^2$
Volume: $54\,\text{mm}^3$

Surface Area and Volume of Conical Frustums (D)

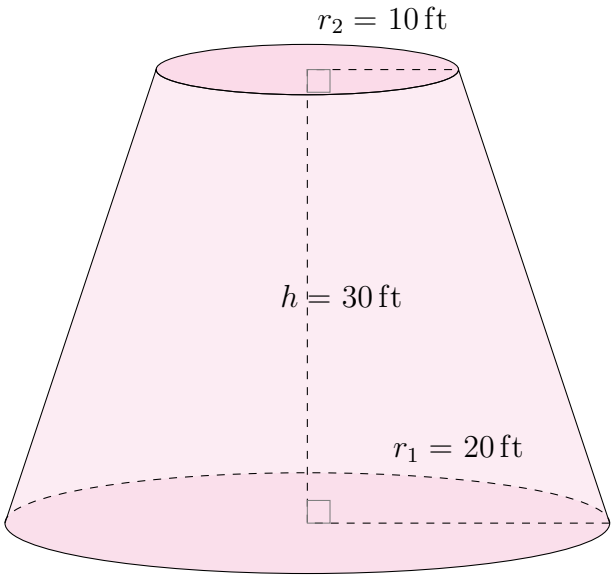
Calculate the surface area and volume for each conical frustum.

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

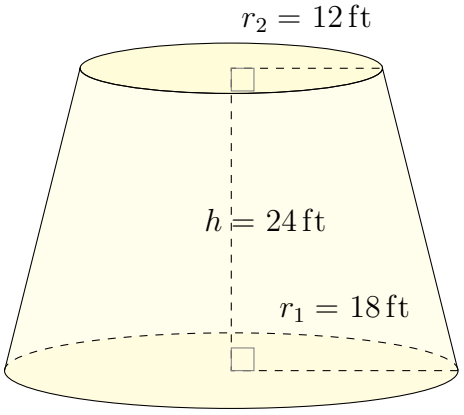
1.



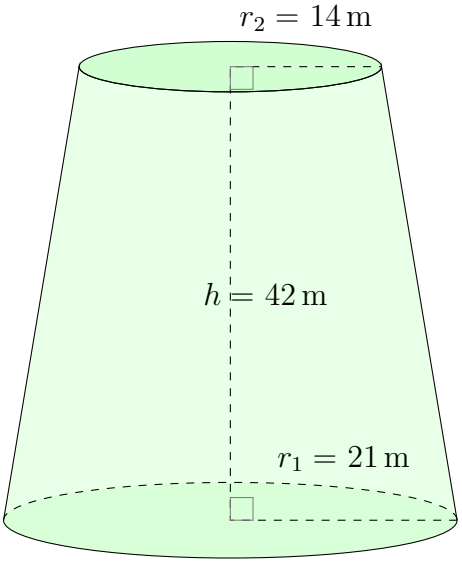
2.



3.



4.

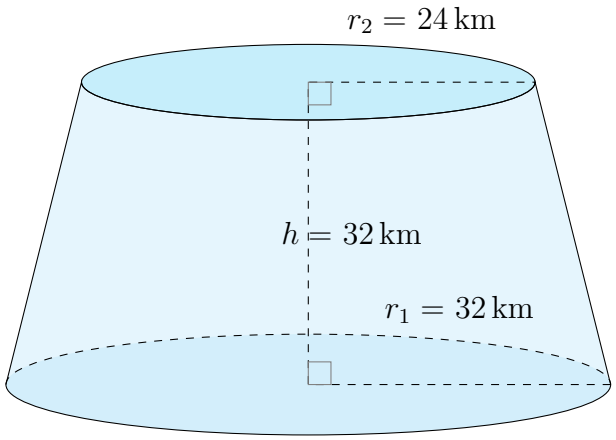


Surface Area and Volume of Conical Frustums (D) Answers

Calculate the surface area and volume for each conical frustum.

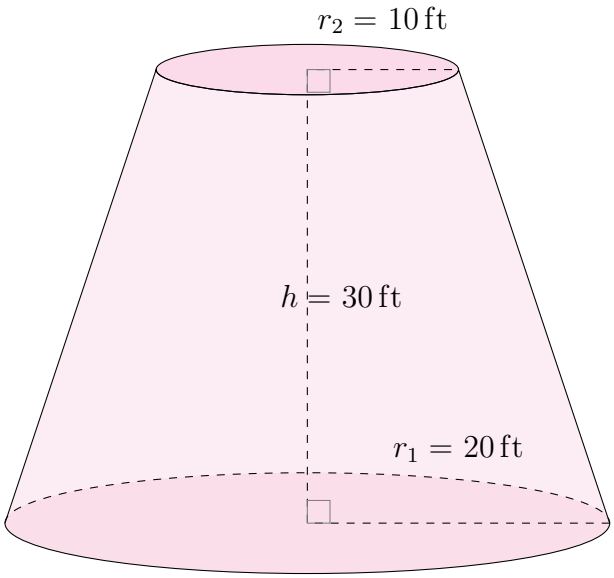
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



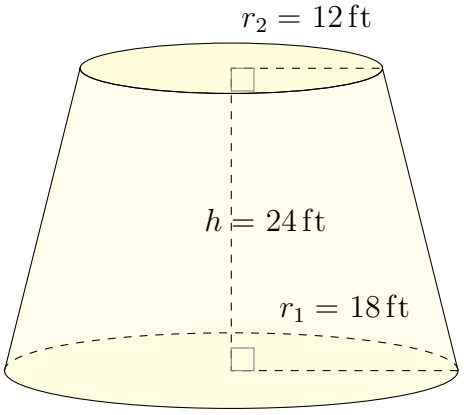
Surface Area: $10{,}830\,\text{km}^2$
Volume: $79{,}352\,\text{km}^3$

2.



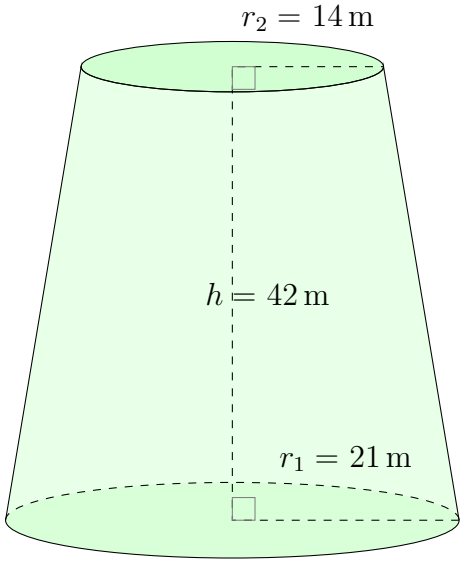
Surface Area: $4551\,\text{ft}^2$
Volume: $21{,}991\,\text{ft}^3$

3.



Surface Area: $3802\,\text{ft}^2$
Volume: $17{,}191\,\text{ft}^3$

4.



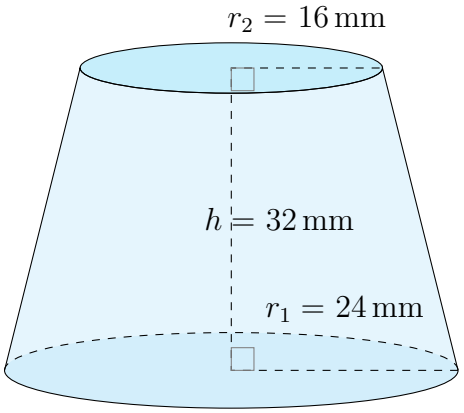
Surface Area: $6683\,\text{m}^2$
Volume: $40{,}948\,\text{m}^3$

Surface Area and Volume of Conical Frustums (E)

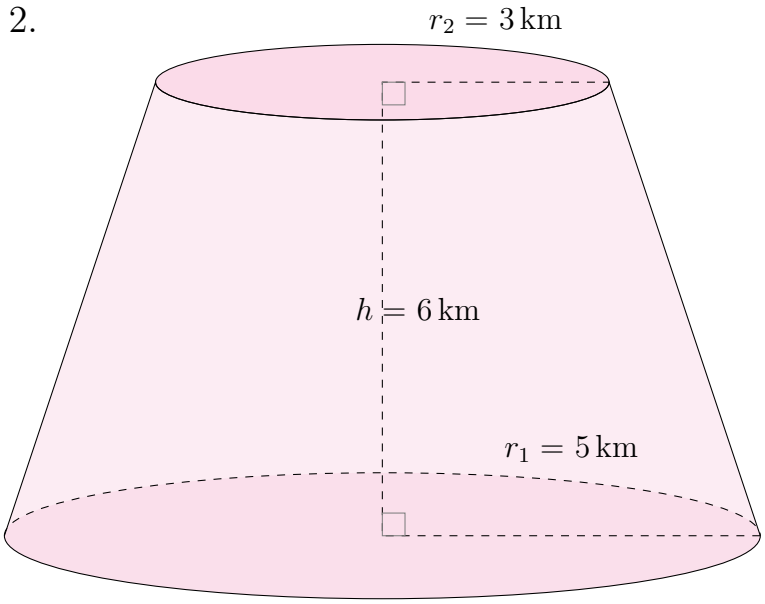
Calculate the surface area and volume for each conical frustum.

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

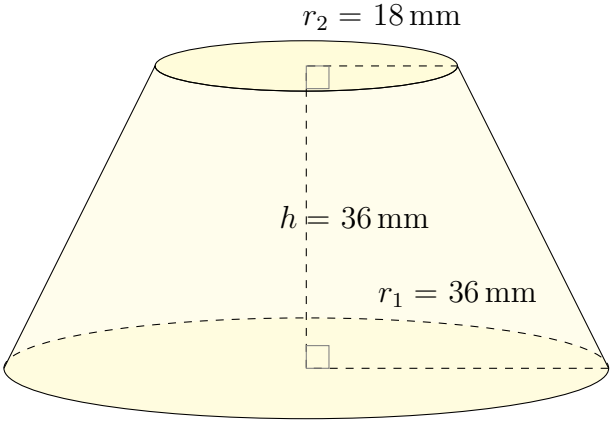
1.



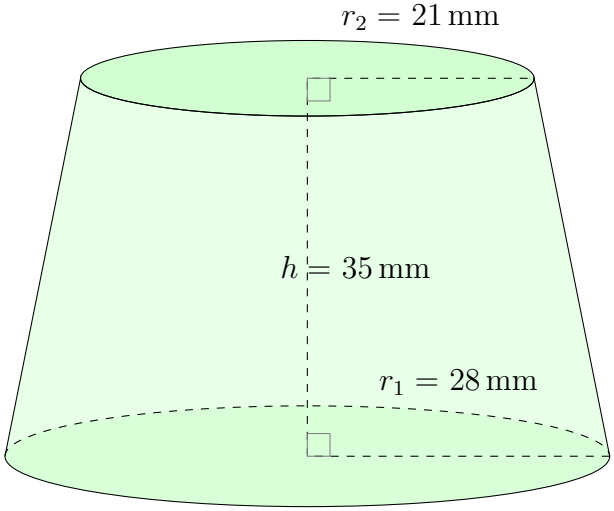
2.



3.



4.

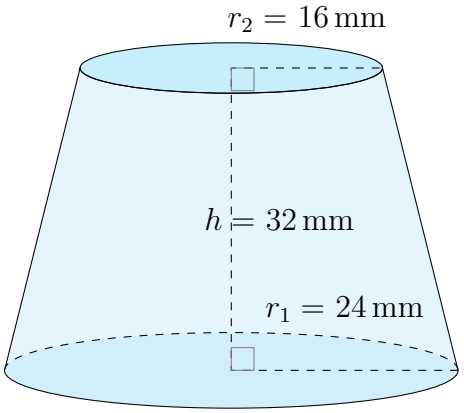


Surface Area and Volume of Conical Frustums (E) Answers

Calculate the surface area and volume for each conical frustum.

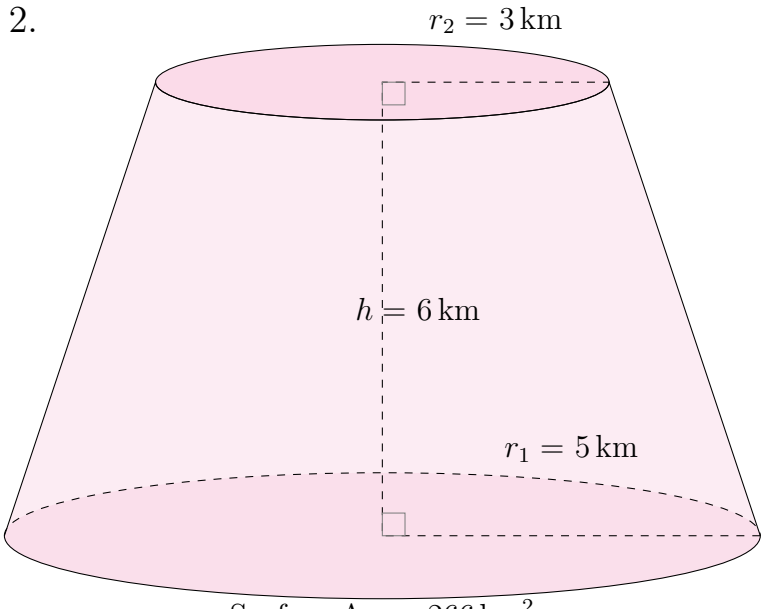
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



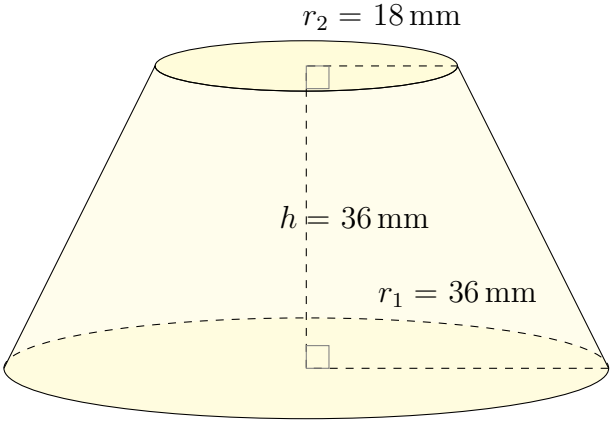
Surface Area: $6759\,\text{mm}^2$
Volume: $40{,}749\,\text{mm}^3$

2.



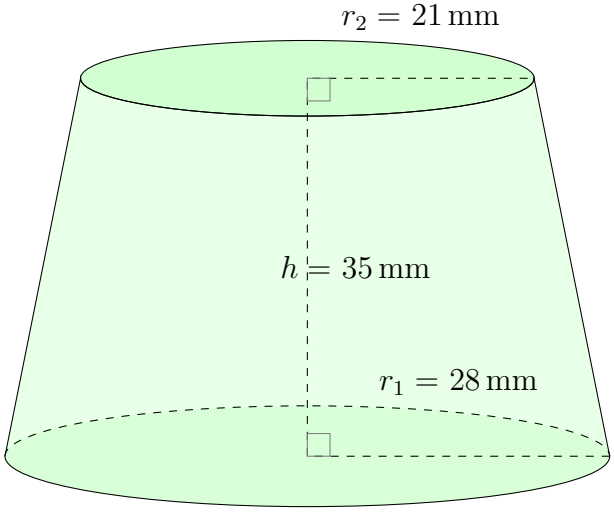
Surface Area: $266\,\text{km}^2$
Volume: $308\,\text{km}^3$

3.



Surface Area: $11{,}918\,\text{mm}^2$
Volume: $85{,}502\,\text{mm}^3$

4.



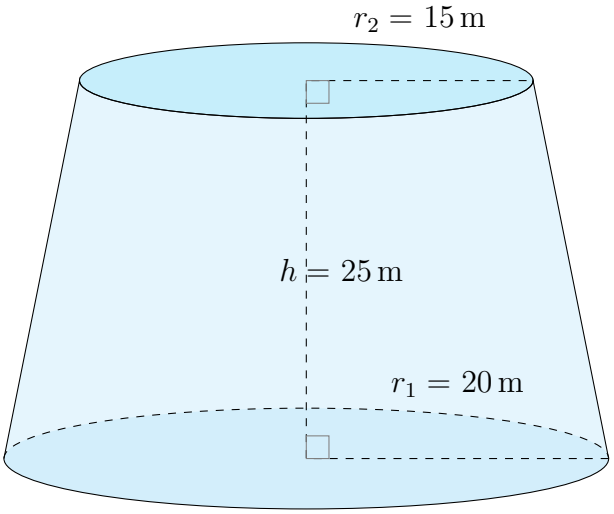
Surface Area: $9343\,\text{mm}^2$
Volume: $66{,}450\,\text{mm}^3$

Surface Area and Volume of Conical Frustums (F)

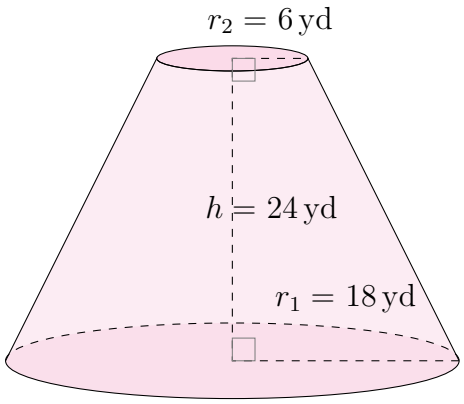
Calculate the surface area and volume for each conical frustum.

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

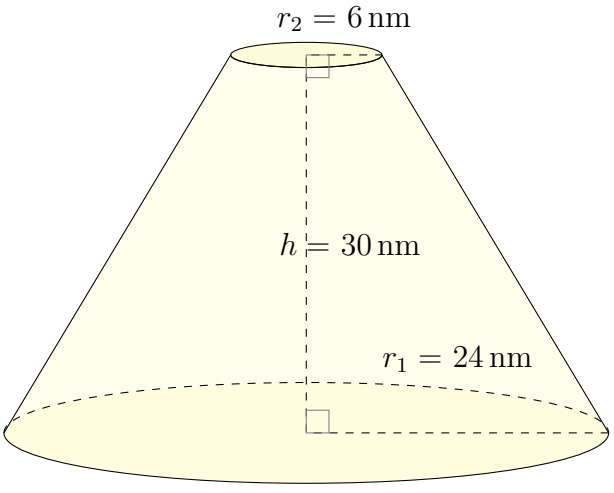
1.



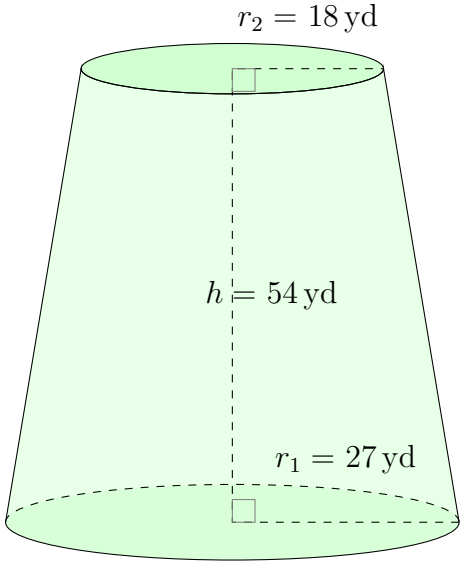
2.



3.



4.

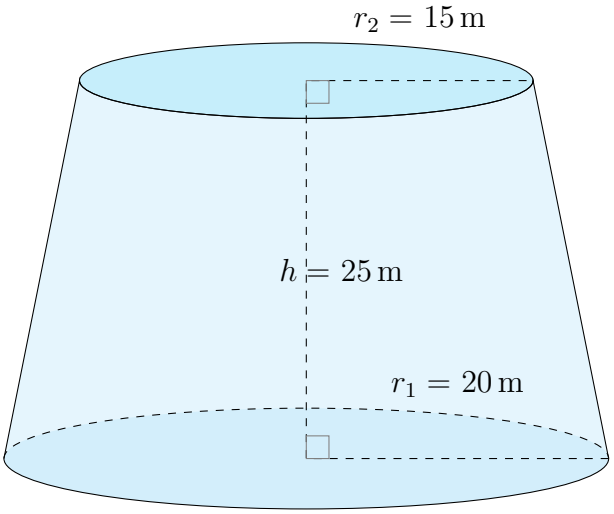


Surface Area and Volume of Conical Frustums (F) Answers

Calculate the surface area and volume for each conical frustum.

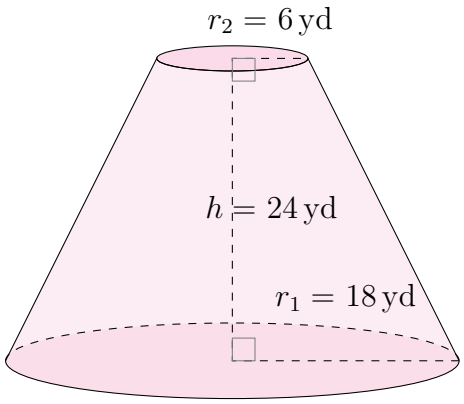
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



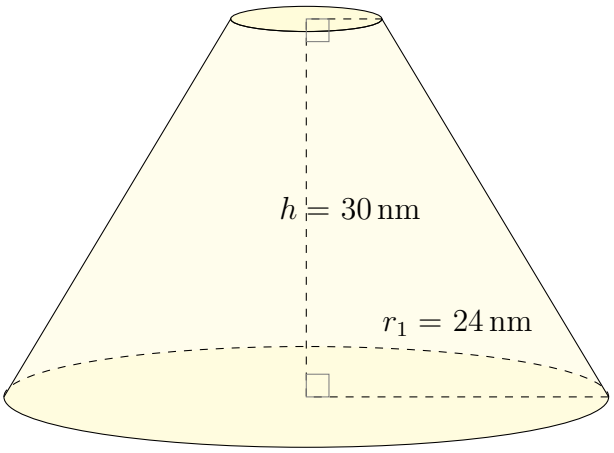
Surface Area: $4767\,\text{m}^2$
Volume: $24{,}216\,\text{m}^3$

2.



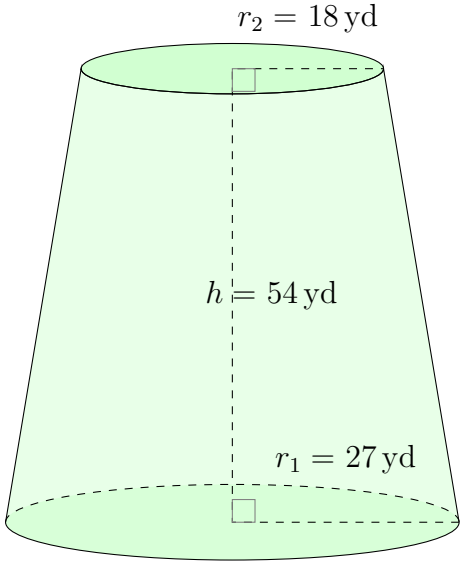
Surface Area: $3154\,\text{yd}^2$
Volume: $11{,}762\,\text{yd}^3$

3.



Surface Area: $5220\,\text{nm}^2$
Volume: $23{,}750\,\text{nm}^3$

4.



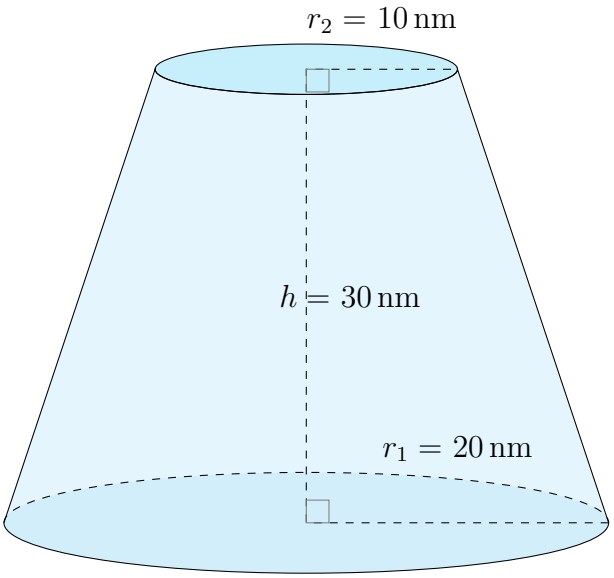
Surface Area: $11{,}047\,\text{yd}^2$
Volume: $87{,}028\,\text{yd}^3$

Surface Area and Volume of Conical Frustums (G)

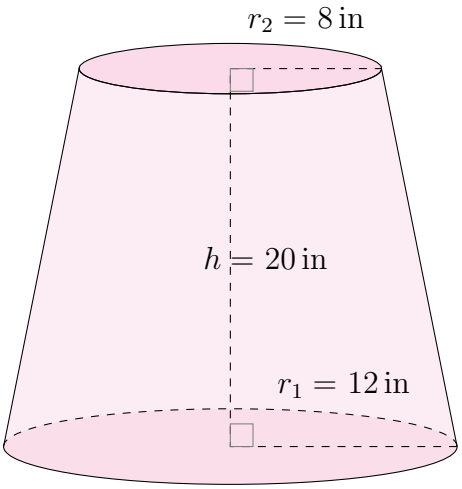
Calculate the surface area and volume for each conical frustum.

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

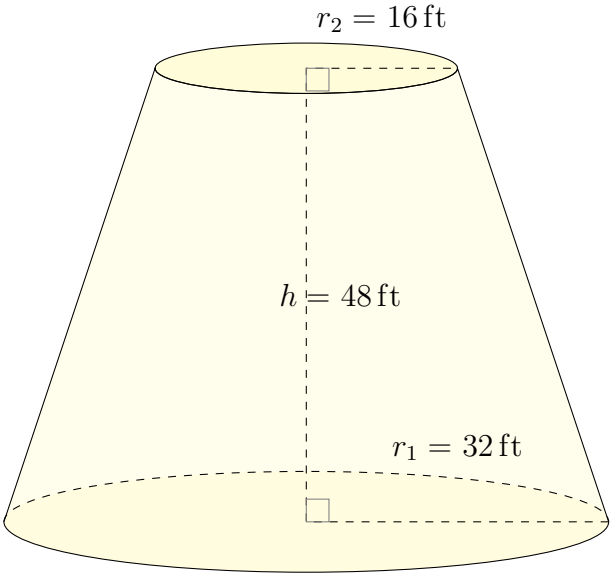
1.



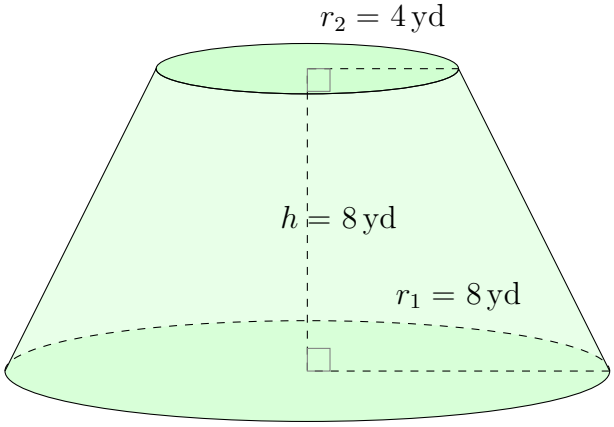
2.



3.



4.

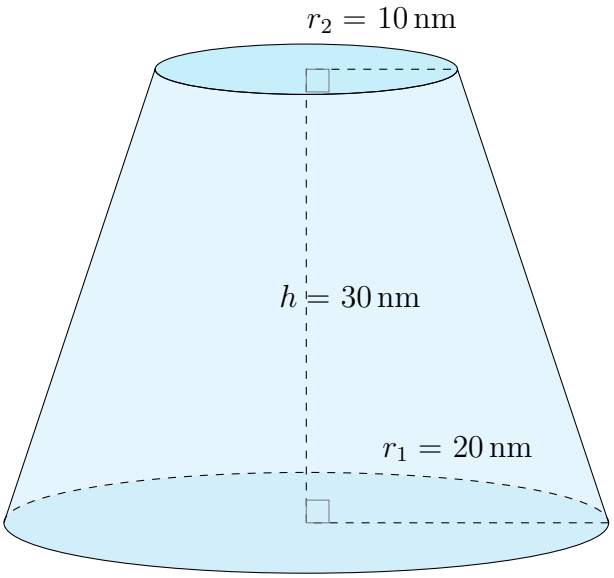


Surface Area and Volume of Conical Frustums (G) Answers

Calculate the surface area and volume for each conical frustum.

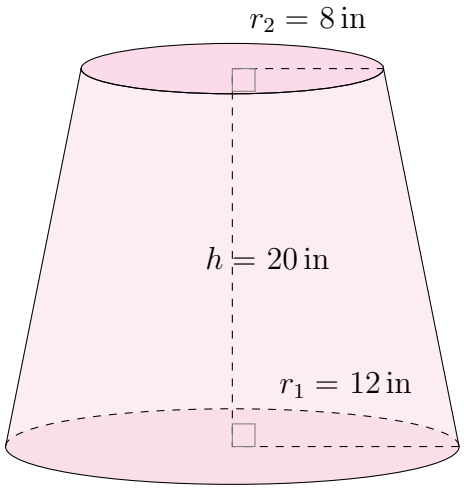
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



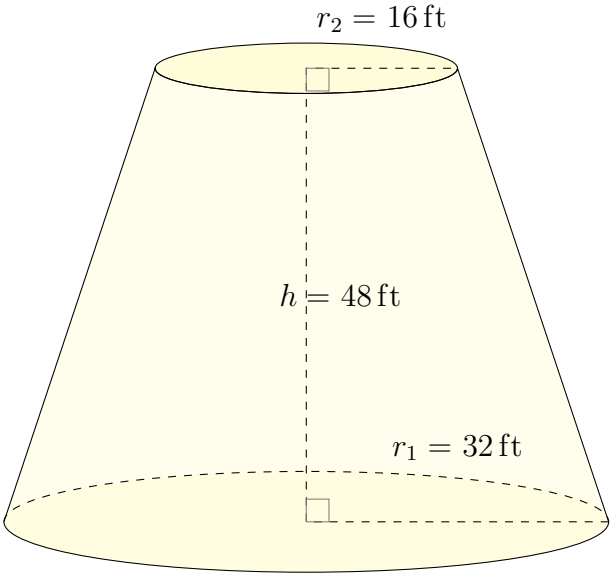
Surface Area: $4551\,\text{nm}^2$
Volume: $21{,}991\,\text{nm}^3$

2.



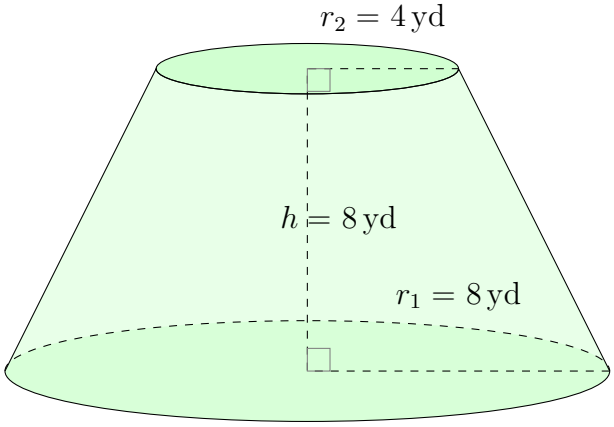
Surface Area: $1935\,\text{in}^2$
Volume: $6367\,\text{in}^3$

3.



Surface Area: $11{,}651\,\text{ft}^2$
Volume: $90{,}076\,\text{ft}^3$

4.



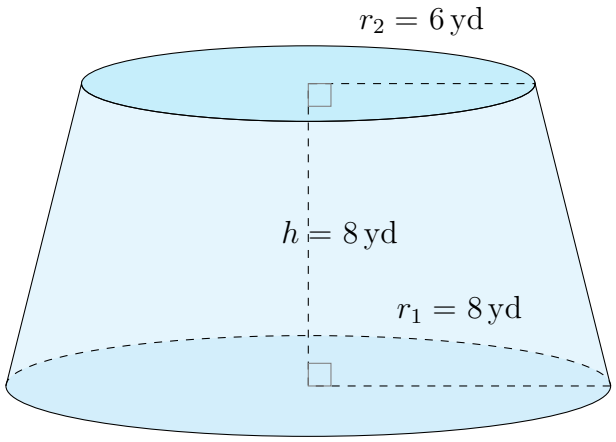
Surface Area: $589\,\text{yd}^2$
Volume: $938\,\text{yd}^3$

Surface Area and Volume of Conical Frustums (H)

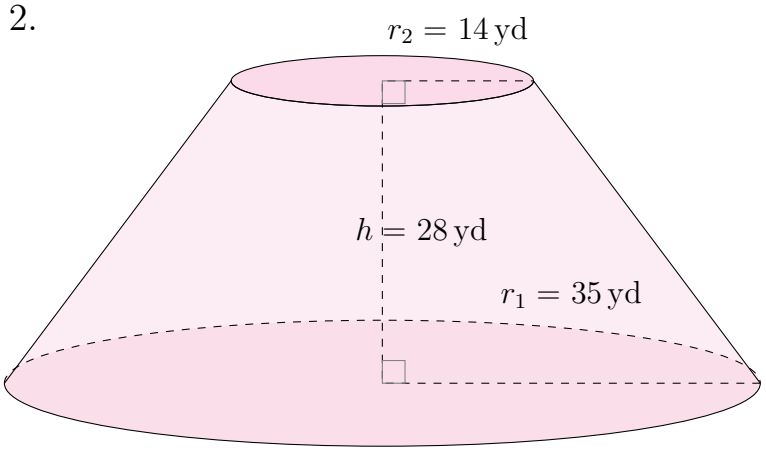
Calculate the surface area and volume for each conical frustum.

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

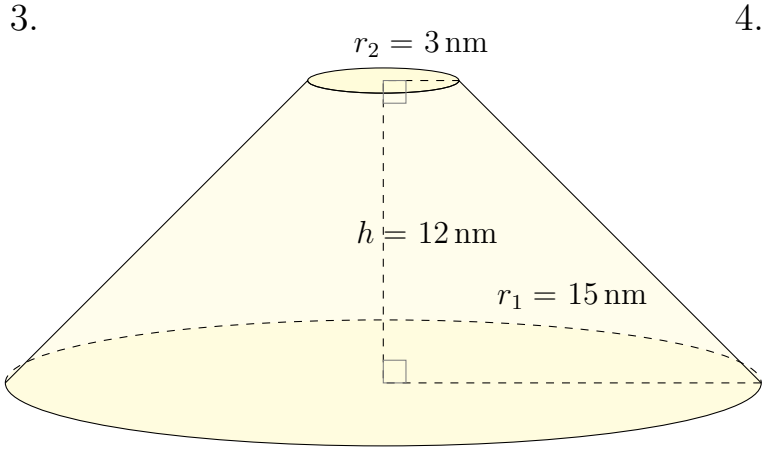
1.



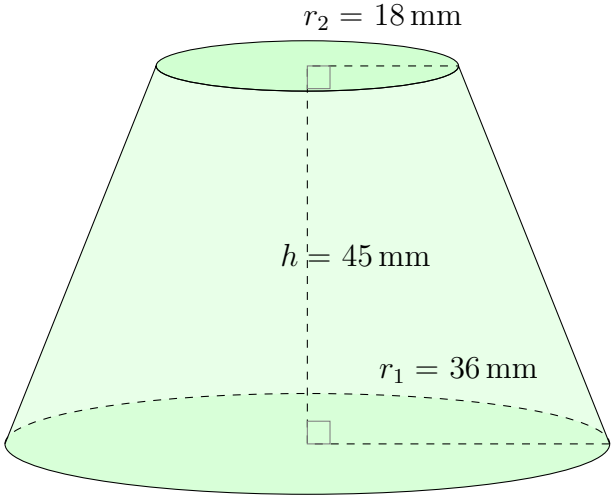
2.



3.



4.

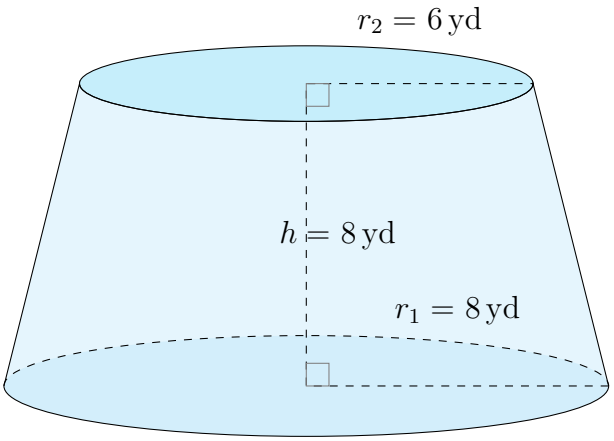


Surface Area and Volume of Conical Frustums (H) Answers

Calculate the surface area and volume for each conical frustum.

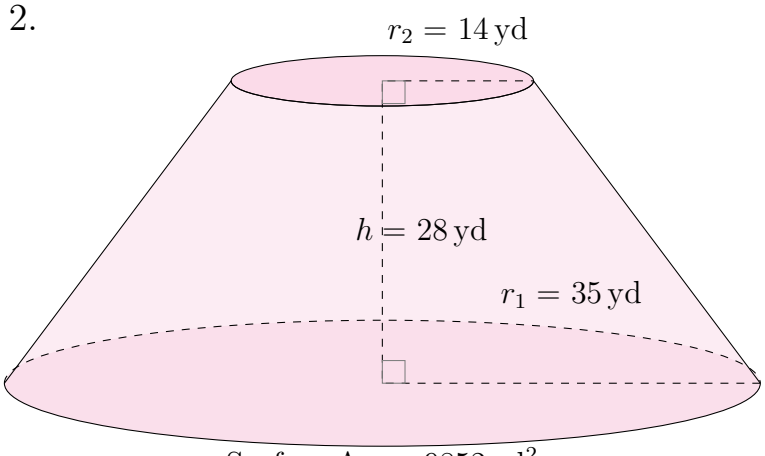
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



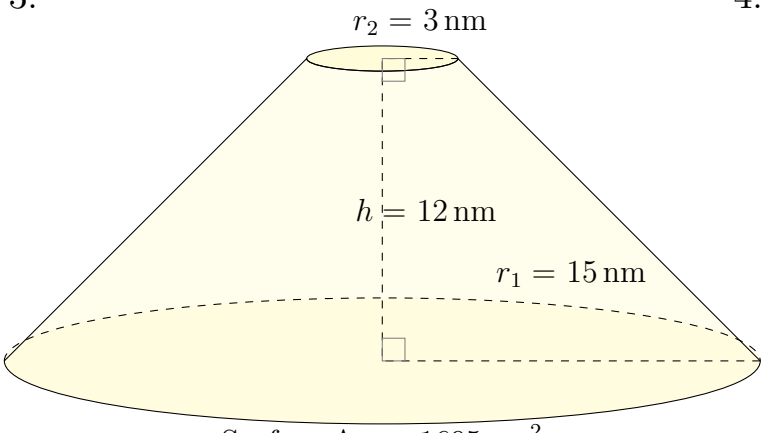
Surface Area: $677\,\text{yd}^2$
Volume: $1240\,\text{yd}^3$

2.



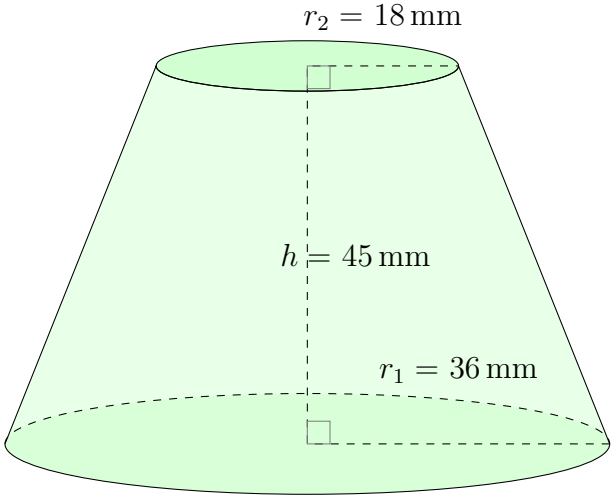
Surface Area: $9852\,\text{yd}^2$
Volume: $56{,}033\,\text{yd}^3$

3.



Surface Area: $1695\,\text{nm}^2$
Volume: $3506\,\text{nm}^3$

4.



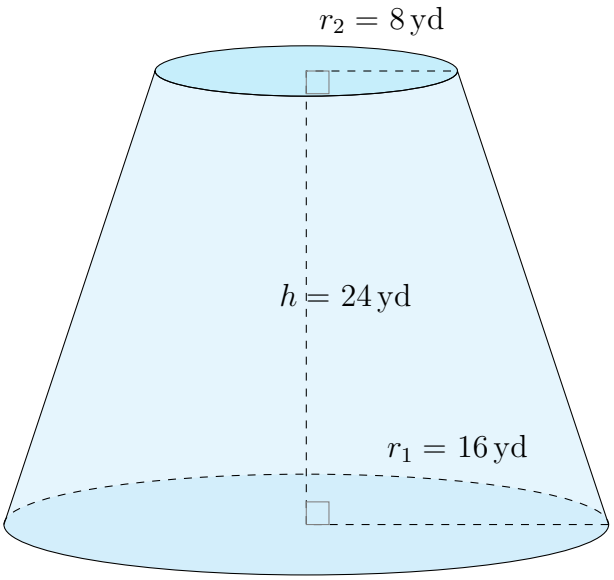
Surface Area: $13{,}312\,\text{mm}^2$
Volume: $106{,}877\,\text{mm}^3$

Surface Area and Volume of Conical Frustums (I)

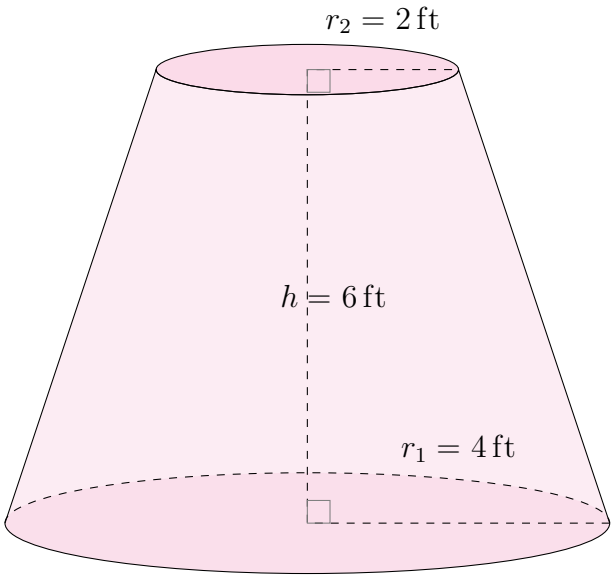
Calculate the surface area and volume for each conical frustum.

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

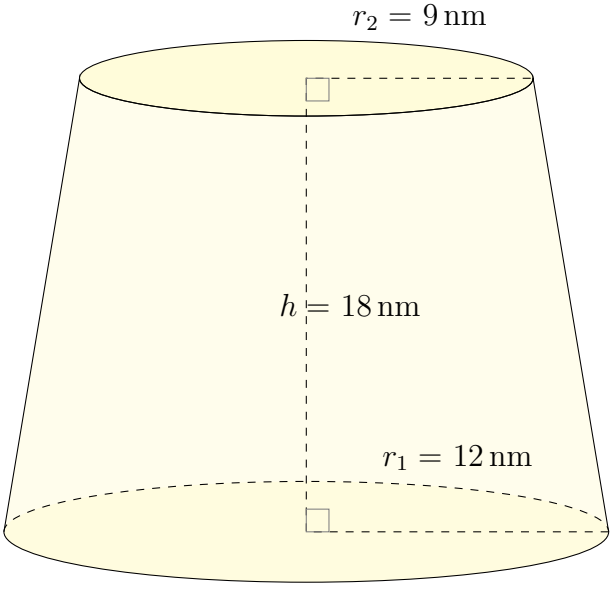
1.



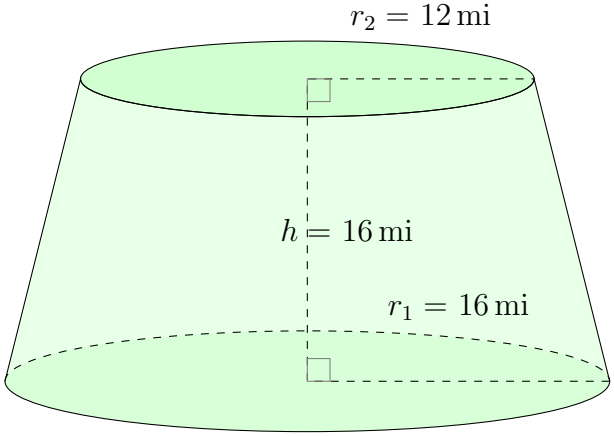
2.



3.



4.

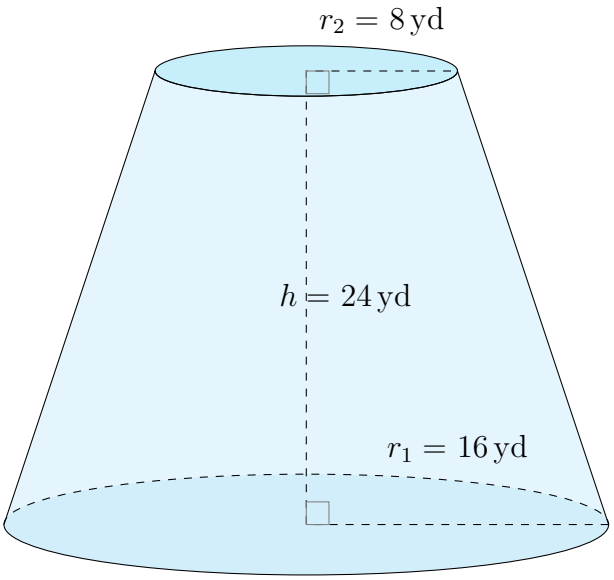


Surface Area and Volume of Conical Frustums (I) Answers

Calculate the surface area and volume for each conical frustum.

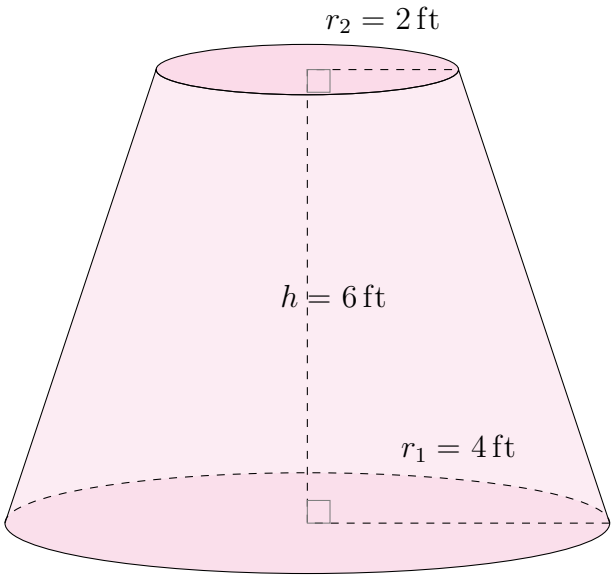
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



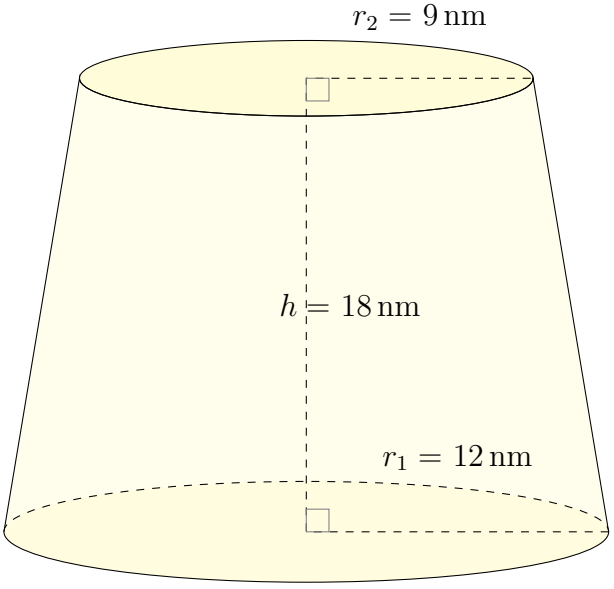
Surface Area: $2913\,\text{yd}^2$
Volume: $11{,}259\,\text{yd}^3$

2.



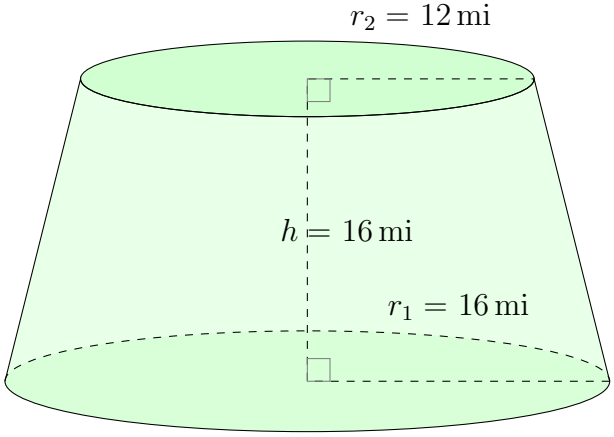
Surface Area: $182\,\text{ft}^2$
Volume: $176\,\text{ft}^3$

3.



Surface Area: $1911\,\text{nm}^2$
Volume: $6277\,\text{nm}^3$

4.



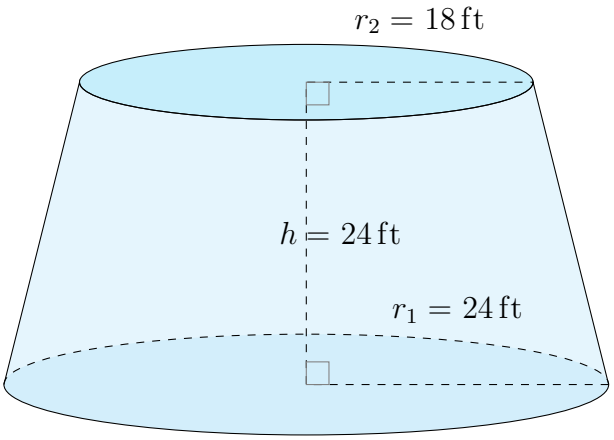
Surface Area: $2707\,\text{mi}^2$
Volume: $9919\,\text{mi}^3$

Surface Area and Volume of Conical Frustums (J)

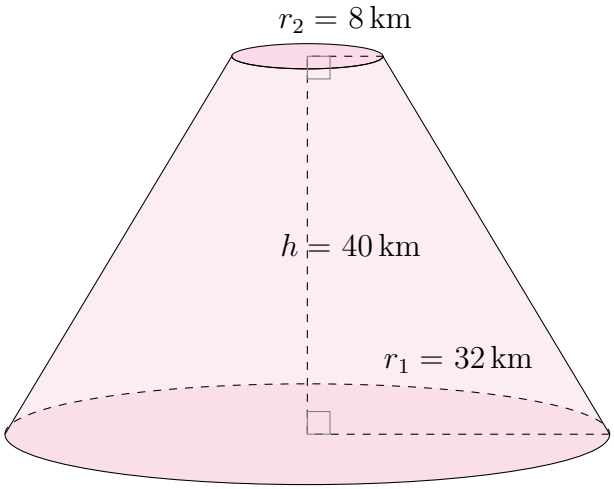
Calculate the surface area and volume for each conical frustum.

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

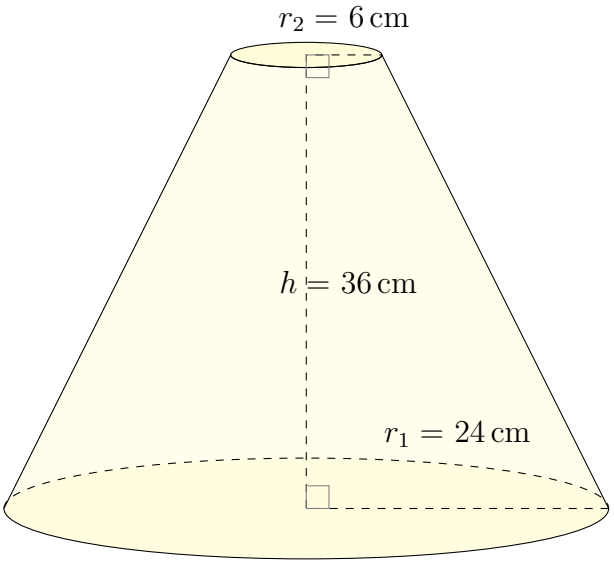
1.



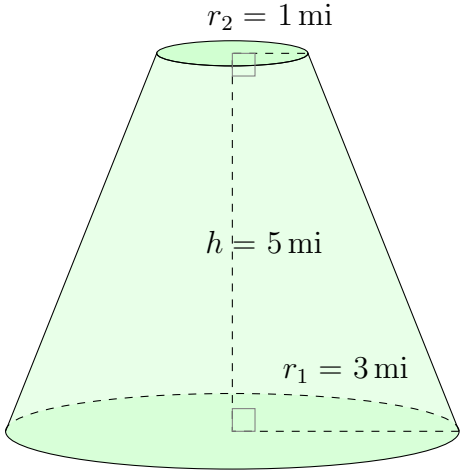
2.



3.



4.

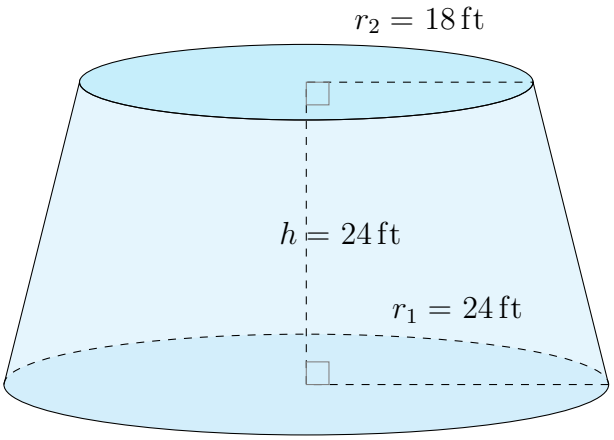


Surface Area and Volume of Conical Frustums (J) Answers

Calculate the surface area and volume for each conical frustum.

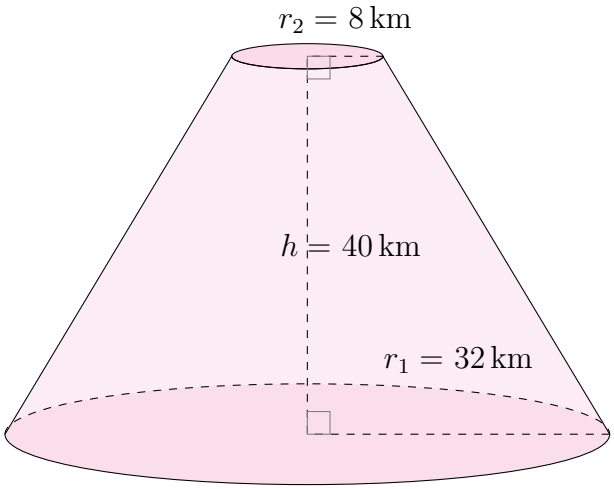
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



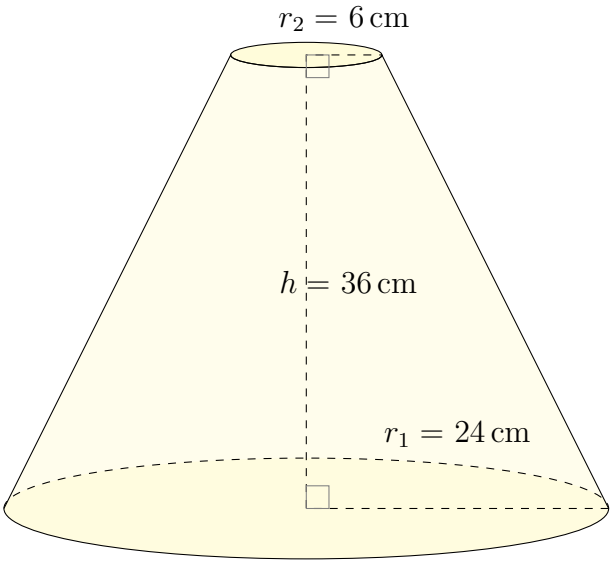
Surface Area: $6092\,\text{ft}^2$
Volume: $33{,}477\,\text{ft}^3$

2.



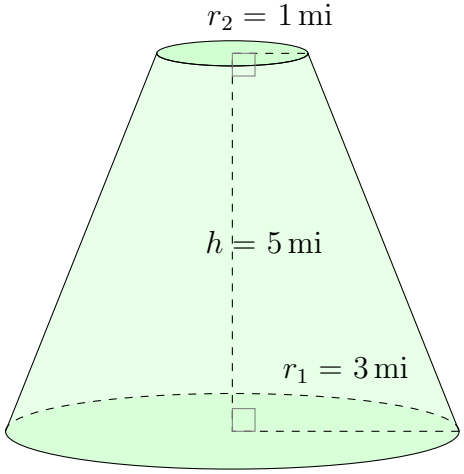
Surface Area: $9280\,\text{km}^2$
Volume: $56{,}297\,\text{km}^3$

3.



Surface Area: $5716\,\text{cm}^2$
Volume: $28{,}501\,\text{cm}^3$

4.



Surface Area: $99\,\text{mi}^2$
Volume: $68\,\text{mi}^3$