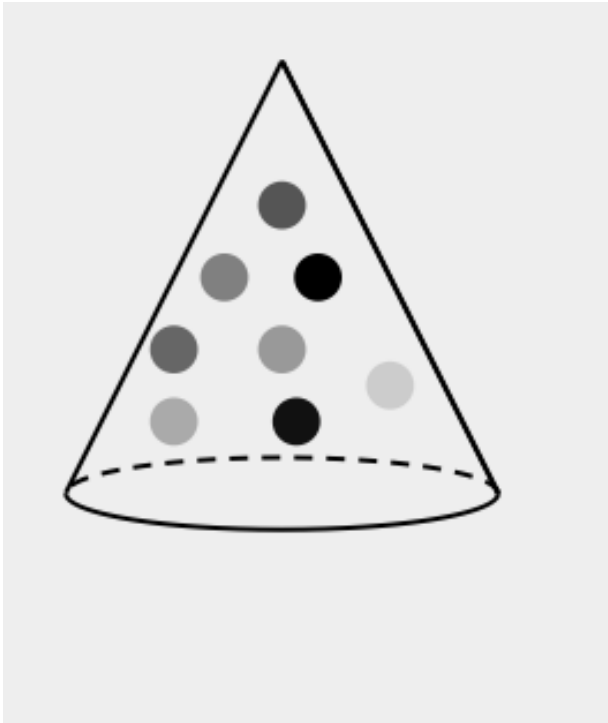


Volume word problems



Cam is making a party hat, shown at left, in the shape of a cone for his birthday. The circumference of the part of his head where the hat will rest is **56 centimeters (cm)**. If the height of the hat is **25 cm**, which of the following is closest to the volume of Cam's hat, measured in cubic centimeters (cm^3)?

A 233 cm^3

B $2,080 \text{ cm}^3$

C $16,362 \text{ cm}^3$

D $20,525 \text{ cm}^3$

Volume word problems

A die is created by smoothing the corners of a plastic cube and carving indented pips. The original cube had an edge length of **2 centimeters (cm)**. The volume of the final die is **7.5 cm^3** . What is the volume of the waste generated by creating the die from the cube in **cm^3** ?

A set of **3** cylindrical canisters all have diameter **8 centimeters (cm)**. The heights of the canisters are **16 cm**, **12 cm**, and **9 cm**, respectively. Which of the following is closest to the total volume of the **3** canisters in cubic centimeters (**cm^3**)?

(A) 804 cm^3

(B) $1,056 \text{ cm}^3$

(C) $1,860 \text{ cm}^3$

(D) $7,439 \text{ cm}^3$

A cake pan is in the shape of a right rectangular prism **20 centimeters (cm)** long by **20 cm** wide by **5 cm** high. The pan contains **1,000** cubic centimeters (**cm^3**) of batter. Approximately how far is the cake batter from the top of the pan?

(A) **1 cm**

(B) **2.5 cm**

(C) **5 cm**

(D) **7 cm**

A household aquarium tank in the shape of a rectangular prism has a base length of **24 inches (in)** and a base width of **15 in**. The height of the water is **12 in** above the base. During cleaning, **900** cubic inches of water is removed. What is the absolute value of the change in the height of the water in inches?