

Preface: Problems should be completed *like a boss* for maximum effectiveness. If unsure of whether you are completing problems *like a boss*, ask yourself, "**What would Goggins do?**"

A pyramid has a height of 5 inches and a volume of 60 cubic inches. Select all figures that could be the base for this pyramid.

- A. a square with a side length 6 inches
- B. a 3 inch by 4 inch rectangle
- C. a 4 inch by 9 inch rectangle
- D. a circle with a radius of 4 inches
- E. a right triangle with one side 5 inches and the hypotenuse 13 inches
- F. a hexagon with an area of 36 square inches

The volume of a pyramid is 50 cubic units. The base is a square with sides of length 5. What is the height?

- A. 2 units
- B. 4 unites
- C. 6 units
- D. 10 units

Select all the solids with volume 40 cubic units.

- A. A rectangular prism with sides $l = 4$, $w = 5$, and $h = 2$ units
- B. A right rectangular pyramid with a base of 4×2 units and a height of 5 units
- C. A right cone with a base area of 15 units squared and a height of 8 units
- D. A triangle pyramid with a right triangle as the base with legs of 4 and 5 units and an overall height of 12 units.
- E. A right cylinder with a radius of 2 units and a height of $\frac{10}{\pi}$ units
- F. A right hexagonal prism with a base area of 30 units and a height of 4 units

Draw a two-dimensional figure that could be rotated using a vertical axis of rotation to give the barrel shown.



Match the two-dimensional figure and axis of rotation with the solid of rotation that can be formed by rotating the figure using the axis.

- A. A right triangle
- B. A rectangle
- C. A semi-circle

- 1. a cylinder
- 2. a sphere
- 3. a cone