

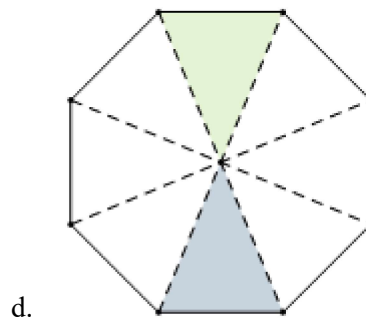
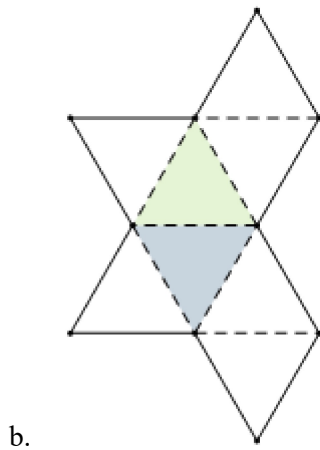
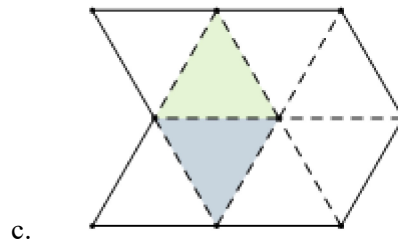
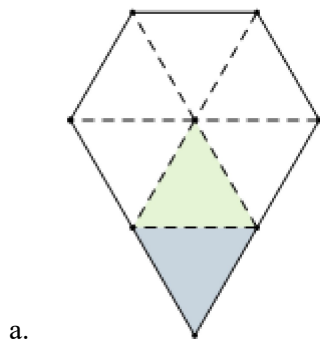
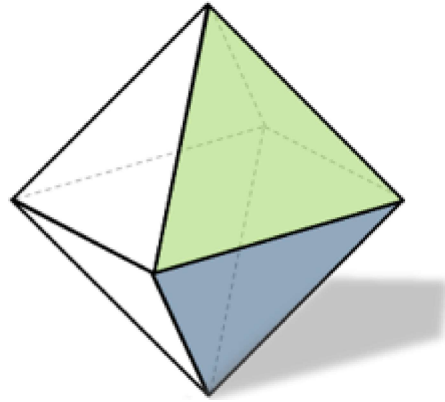
### 04-07-Sample Quiz-Surface Areas

#### Multiple Choice

Identify the choice that best completes the statement or answers the question.

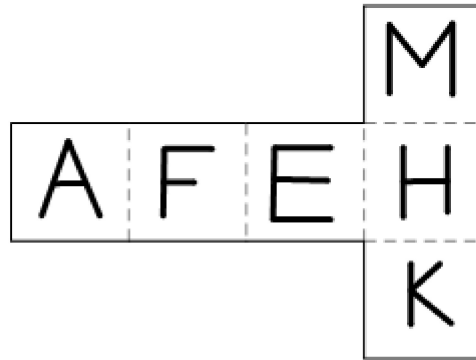
- \_\_\_\_ 1. Which of the below figures is a **net** of the **regular octahedron** shown at the right?

*(Figure may not be drawn to scale.)*

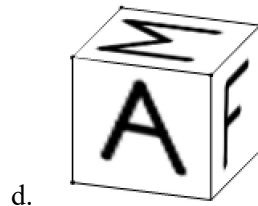
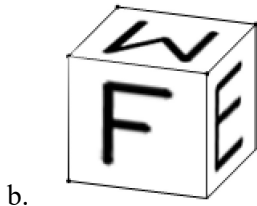
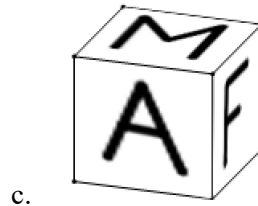
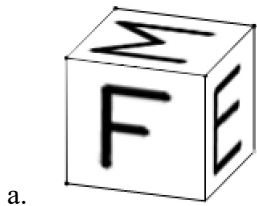


2.

The figure shown is a net of a cube with letters on each face. After the net is folded to create a cube, which of the below cubes is the only one with the correct orientation of the letters on each face shown?



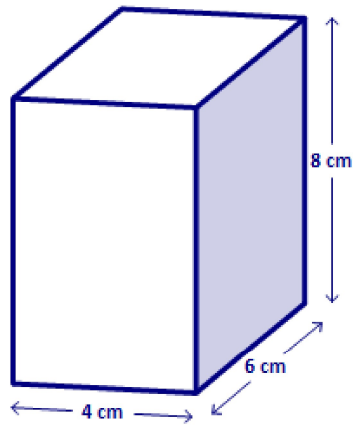
(Figure may not be drawn to scale.)



3.

Find the **total surface area** of a rectangular prism that has the dimensions  $4\text{ cm} \times 6\text{ cm} \times 8\text{ cm}$ .

(Figure may not be drawn to scale.)



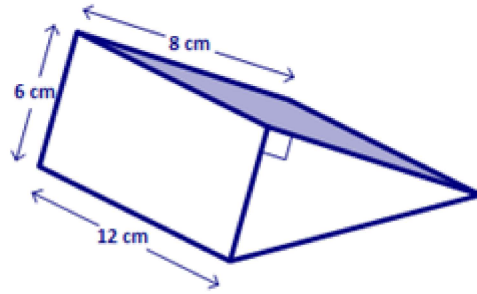
- a.  $160\text{ cm}^2$
- b.  $192\text{ cm}^2$

- c.  $208\text{ cm}^2$
- d.  $288\text{ cm}^2$

4.

Find the **total surface area** of a right triangle prism given the measures in the diagram.

(Figure may not be drawn to scale.)



a.  $216 \text{ cm}^2$

b.  $288 \text{ cm}^2$

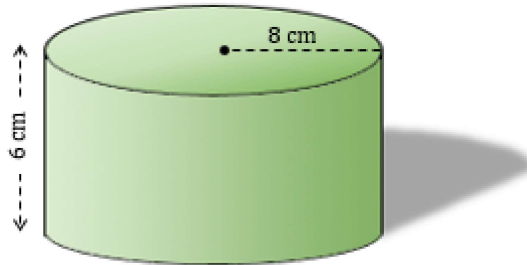
c.  $336 \text{ cm}^2$

d.  $396 \text{ cm}^2$

5.

Find the approximate **surface area** of a cylinder that has a height of 6 cm and a radius of 8 cm.

(Figure may not be drawn to scale.)



a.  $502.7 \text{ cm}^2$

b.  $703.7 \text{ cm}^2$

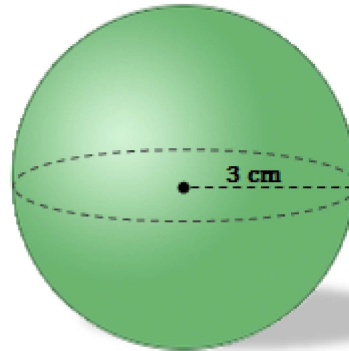
c.  $1206.4 \text{ cm}^2$

d.  $2412.7 \text{ cm}^2$

6.

Find the exact **surface area** of a sphere that has a radius of 3 cm.

(Figure may not be drawn to scale.)



a.  $81\pi \text{ cm}^2$

b.  $36\pi \text{ cm}^2$

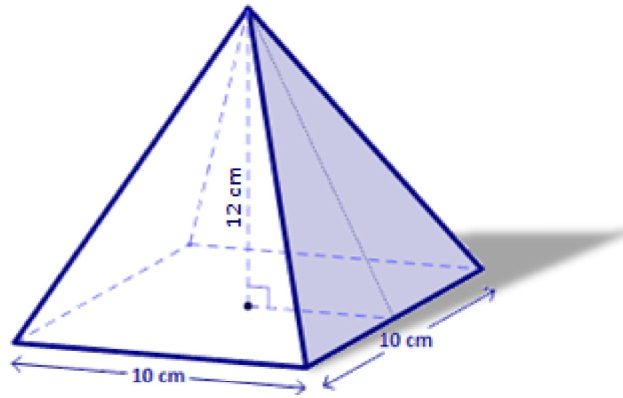
c.  $27\pi \text{ cm}^2$

d.  $9\pi \text{ cm}^2$

7.

A square based pyramid is shown. Determine the **total surface area** of the pyramid given each side of the square is 10 cm and the height of the pyramid is 12 cm.

(Figure may not be drawn to scale.)



a.  $260 \text{ cm}^2$

b.  $320 \text{ cm}^2$

c.  $360 \text{ cm}^2$

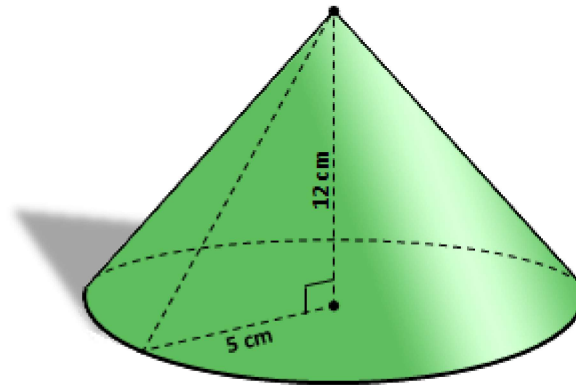
d.  $400 \text{ cm}^2$

8.

A cone is shown with the following measures:

- A radius of 5 cm.
- A height of 12 cm.

Determine the **surface area** of the cone.



(Figure may not be drawn to scale.)

a.  $85\pi \text{ cm}^2$

b.  $90\pi \text{ cm}^2$

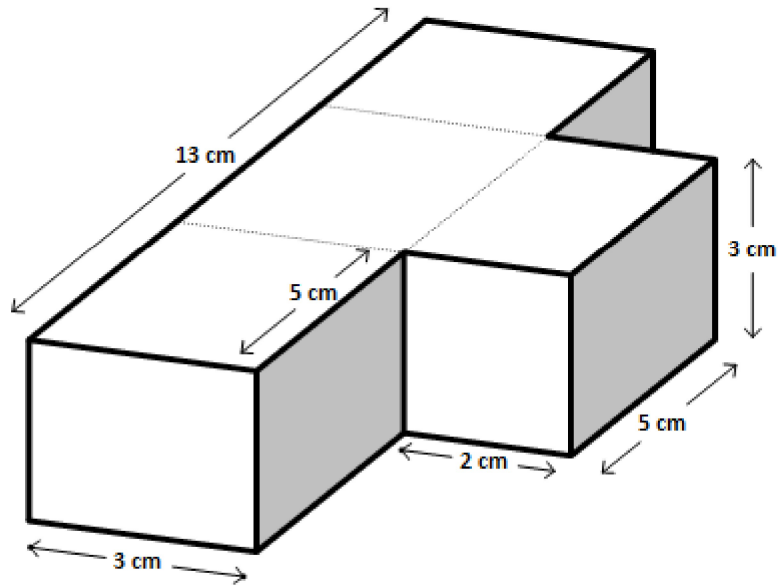
c.  $95\pi \text{ cm}^2$

d.  $100\pi \text{ cm}^2$

9.

A compound solid is shown. You may assume any consecutive sides or faces are perpendicular.

Using the provided measures, find the **total surface area of the solid.**



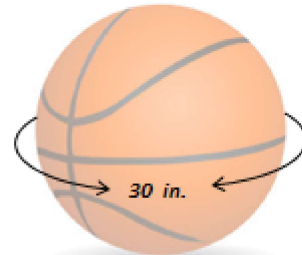
(Figure may not be drawn to scale.)

- |                       |                       |
|-----------------------|-----------------------|
| a. $98 \text{ cm}^2$  | c. $198 \text{ cm}^2$ |
| b. $147 \text{ cm}^2$ | d. $206 \text{ cm}^2$ |

10.

A basketball has a 30 inch circumference.

Approximately, what is the **surface area of the basketball?**



(Figure may not be drawn to scale.)

- |                         |                         |
|-------------------------|-------------------------|
| a. $188.5 \text{ in}^2$ | c. $312.4 \text{ in}^2$ |
| b. $286.5 \text{ in}^2$ | d. $377.0 \text{ in}^2$ |