

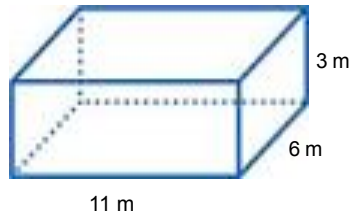
# Which is volume??? Which is surface area???

1. Building a box. The amount of wood needed?
2. Filling a swimming pool with water?
3. Painting the outside of an object?
4. Wrapping the gift box?
5. Rice Crispy treats in a pan?
6. Building a box. The amount of material to fill it?

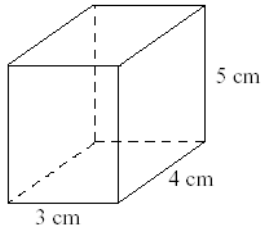
When you double the dimensions of a rectangular prism, what happens to the volume? Does it increase or decrease and by how many times?

When you double the dimensions of a rectangular prism, what happens to the surface area? Does it increase or decrease and by how many times?

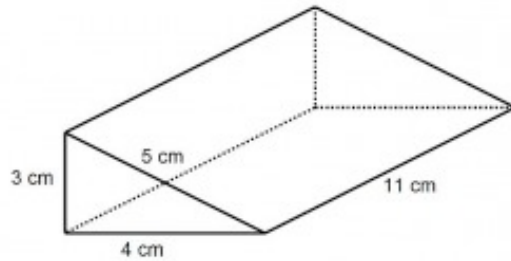
1. Find the surface area of this rectangular prism: a)  $117 \text{ m}^2$    b)  $20 \text{ m}^2$    c)  $234 \text{ m}^2$    d)  $198 \text{ m}^2$



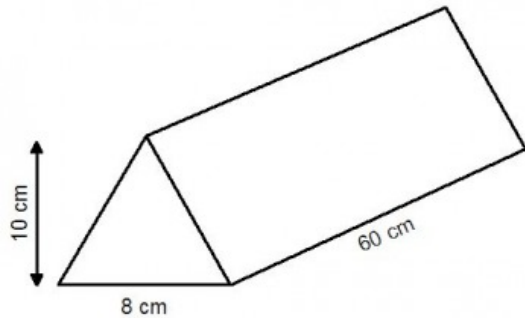
2. Find the volume of this rectangular prism: a)  $60 \text{ cm}^3$    b)  $94 \text{ cm}^3$    c)  $12 \text{ cm}^3$    d)  $30 \text{ cm}^3$



3. Find the surface area of this triangular prism: a)  $156 \text{ cm}^2$    b)  $144 \text{ cm}^2$    c)  $138 \text{ cm}^2$    d)  $111 \text{ cm}^2$



4. Find the volume of this triangular prism: a)  $1520 \text{ cm}^3$    b)  $78 \text{ cm}^3$    c)  $4800 \text{ cm}^3$    d)  $2400 \text{ cm}^3$



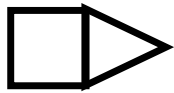
5. What shapes do you need for an octagonal pyramid?

- a) 1 octagon 8 triangles
- b) 2 octagons 8 rectangles
- c) 1 octagon 8 rectangles
- d) 2 octagons 8 rectangles

6. What shapes do you need for an octagonal prism?

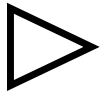
- a) 1 octagon 8 triangles
- b) 2 octagons 8 rectangles
- c) 1 octagon 8 rectangles
- d) 2 octagons 8 rectangles

7. Complete this net for a triangular prism. What shapes do you add?



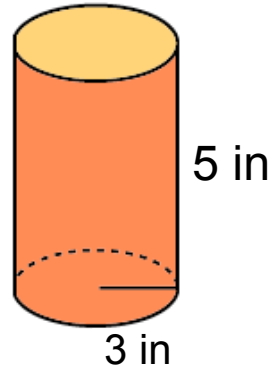
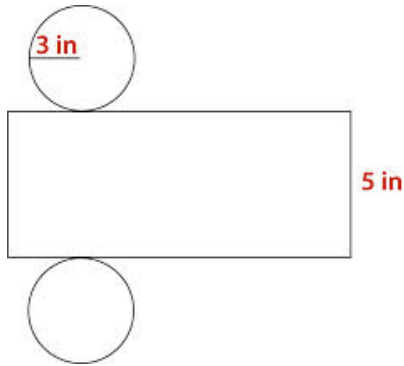
- a) 3 squares
- b) 1 triangle and 2 squares
- c) 1 triangle and 3 squares
- d) 3 triangles

8. Complete this net for a triangular pyramid. What shapes do you add?



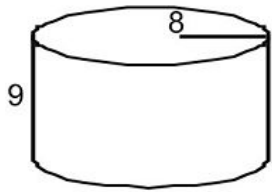
- a) 3 squares
- b) 1 triangle and 2 squares
- c) 1 triangle and 3 squares
- d) 3 triangles

9. Use this net to find the area of the cylinder. Give the answer to the nearest square inch.



- a)  $94 \text{ in}^2$    b)  $151 \text{ in}^2$    c)  $123 \text{ in}^2$    d)  $75 \text{ in}^2$

10. Find the volume of this cylinder. Round your answer to the nearest tenth.



- a)  $1809.6 \text{ in}^3$    b)  $50.3 \text{ in}^3$    c)  $72 \text{ in}^3$    d)  $3619.1 \text{ in}^3$

11. A cylinder shape tank has a diameter of 3 m and a length of 14.6 m. What is the volume? Round your answer to the nearest tenth.

