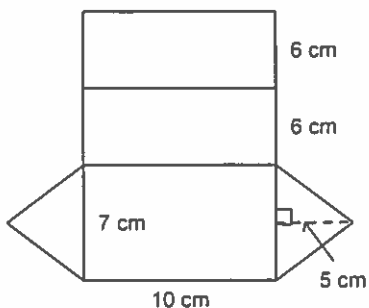


### Surface Area of a Triangular Prism

#### Multiple Choice

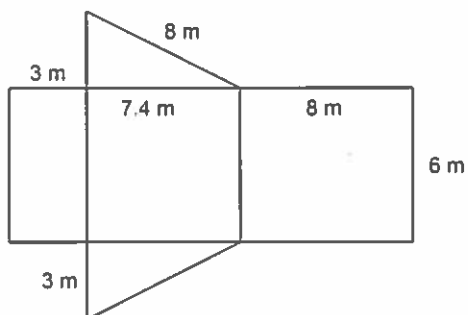
Identify the choice that best completes the statement or answers the question.

- \_\_\_ 1. Calculate the area of this net of a right triangular prism.



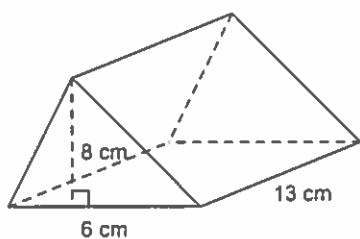
- a.  $225 \text{ cm}^2$       b.  $207.5 \text{ cm}^2$       c.  $165 \text{ cm}^2$       d.  $147.5 \text{ cm}^2$

- \_\_\_ 2. Calculate the area of this net of a right triangular prism.



- a.  $88.2 \text{ m}^2$       b.  $132.6 \text{ m}^2$       c.  $56 \text{ m}^2$       d.  $66.6 \text{ m}^2$

- \_\_\_ 3. Calculate the area of the 2 triangular faces of this right triangular prism.

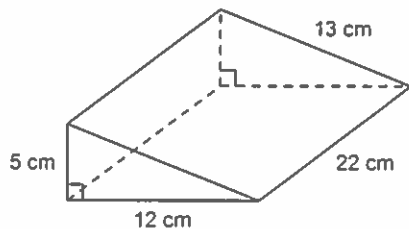


- a.  $24 \text{ cm}^2$       b.  $48 \text{ cm}^2$       c.  $39 \text{ cm}^2$       d.  $96 \text{ cm}^2$

Name: \_\_\_\_\_

ID: A

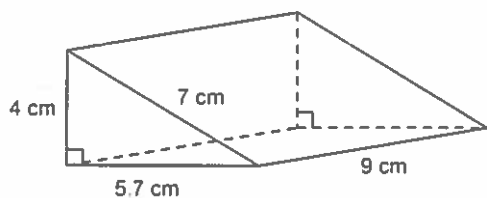
- \_\_\_ 4. Calculate the surface area of this right triangular prism.



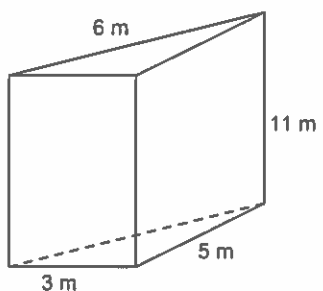
- a.  $720 \text{ cm}^2$       b.  $868 \text{ cm}^2$       c.  $660 \text{ cm}^2$       d.  $780 \text{ cm}^2$
- \_\_\_ 5. The total area of the 3 rectangular faces of a right triangular prism is  $56 \text{ cm}^2$ . The total surface area of the prism is  $68 \text{ cm}^2$ . Find the area of each triangular face.
- a.  $6 \text{ cm}^2$       b.  $12 \text{ cm}^2$       c.  $1.2 \text{ cm}^2$       d.  $49.3 \text{ cm}^2$

### Short Answer

6. Find the surface area of this right triangular prism.



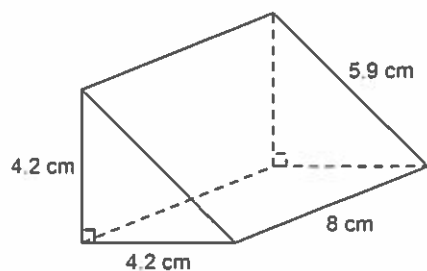
7. The area of the triangular top of this right triangular prism is  $7.5 \text{ cm}^2$ . Find the surface area of the prism.



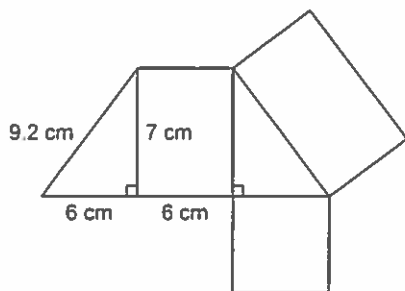
Name: \_\_\_\_\_

ID: A

8. Find the surface area of this right rectangular prism.

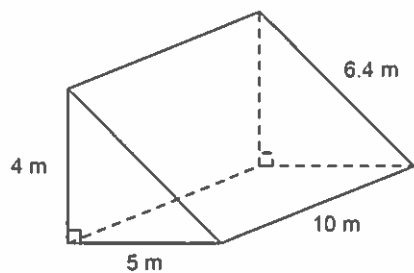


9. Calculate the surface area of this net of a right triangular prism.



10. Here is a right triangular prism.

- Find the surface area of the prism.
- If all the dimensions of the prism are doubled, what is the new surface area?
- How does this new surface area compare to the original surface area?



## Surface Area of a Triangular Prism

### Answer Section

#### MULTIPLE CHOICE

1. ANS: A                   PTS: 1                   DIF: Easy  
REF: 4.4 Surface Area of a Right Triangular Prism                   LOC: 8.SS3  
TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding
2. ANS: B                   PTS: 1                   DIF: Easy  
REF: 4.4 Surface Area of a Right Triangular Prism                   LOC: 8.SS3  
TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding
3. ANS: B                   PTS: 1                   DIF: Easy  
REF: 4.4 Surface Area of a Right Triangular Prism                   LOC: 8.SS3  
TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding
4. ANS: A                   PTS: 1                   DIF: Moderate  
REF: 4.4 Surface Area of a Right Triangular Prism                   LOC: 8.SS3  
TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding
5. ANS: A                   PTS: 1                   DIF: Difficult  
REF: 4.4 Surface Area of a Right Triangular Prism                   LOC: 8.SS3  
TOP: Shape and Space (Measurement)                   KEY: Problem-solving Skills

#### SHORT ANSWER

6. ANS:  
The surface area of the prism is 173.1 cm<sup>2</sup>.  
  
PTS: 1                   DIF: Moderate                   REF: 4.4 Surface Area of a Right Triangular Prism  
LOC: 8.SS3                   TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding
7. ANS:  
The surface area of the prism is 169 cm<sup>2</sup>.  
  
PTS: 1                   DIF: Moderate                   REF: 4.4 Surface Area of a Right Triangular Prism  
LOC: 8.SS3                   TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding
8. ANS:  
The surface area of the prism is 246.4 cm<sup>2</sup>.  
  
PTS: 1                   DIF: Moderate                   REF: 4.4 Surface Area of a Right Triangular Prism  
LOC: 8.SS3                   TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding
9. ANS:  
The surface area of the net is 162 cm<sup>2</sup>.  
  
PTS: 1                   DIF: Moderate                   REF: 4.4 Surface Area of a Right Triangular Prism  
LOC: 8.SS3                   TOP: Shape and Space (Measurement)                   KEY: Conceptual Understanding

10. ANS:

- a) The surface area of the prism is  $174 \text{ m}^2$ .
- b) If all dimensions are doubled, the new surface area will be  $696 \text{ m}^2$ .
- c) The new surface area is 4 times the original surface area.

PTS: 1                      DIF: Difficult                      REF: 4.4 Surface Area of a Right Triangular Prism

LOC: 8.SS3                      TOP: Shape and Space (Measurement)

KEY: Communication | Problem-solving Skills

