

Worksheet 4: Generalization

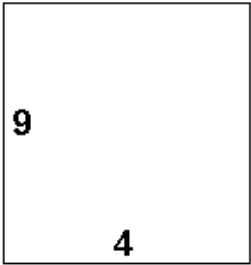
Malia bought a new carpet for her bedroom. The carpet was 4 feet by 6 feet. She got it home and realized it was way too small for her room. She took it back to the store and exchanged it for a larger size. The new carpet is 8 feet by 10 feet. Calculate the change in the area.

$\frac{\text{Length}}{\text{Length}} \times \frac{\text{Width}}{\text{Width}} = \frac{\text{Area 1}}{\text{Area 1}}$	<p>Old Carpet 4</p> <p>6</p> <p>8</p> <p>New Carpet 10</p>
$\frac{\text{Length}}{\text{Length}} \times \frac{\text{Width}}{\text{Width}} = \frac{\text{Area 2}}{\text{Area 2}}$	
$\frac{\text{Larger Area}}{\text{Larger Area}} - \frac{\text{Smaller Area}}{\text{Smaller Area}} = \frac{\text{Difference in Area}}{\text{Difference in Area}}$	

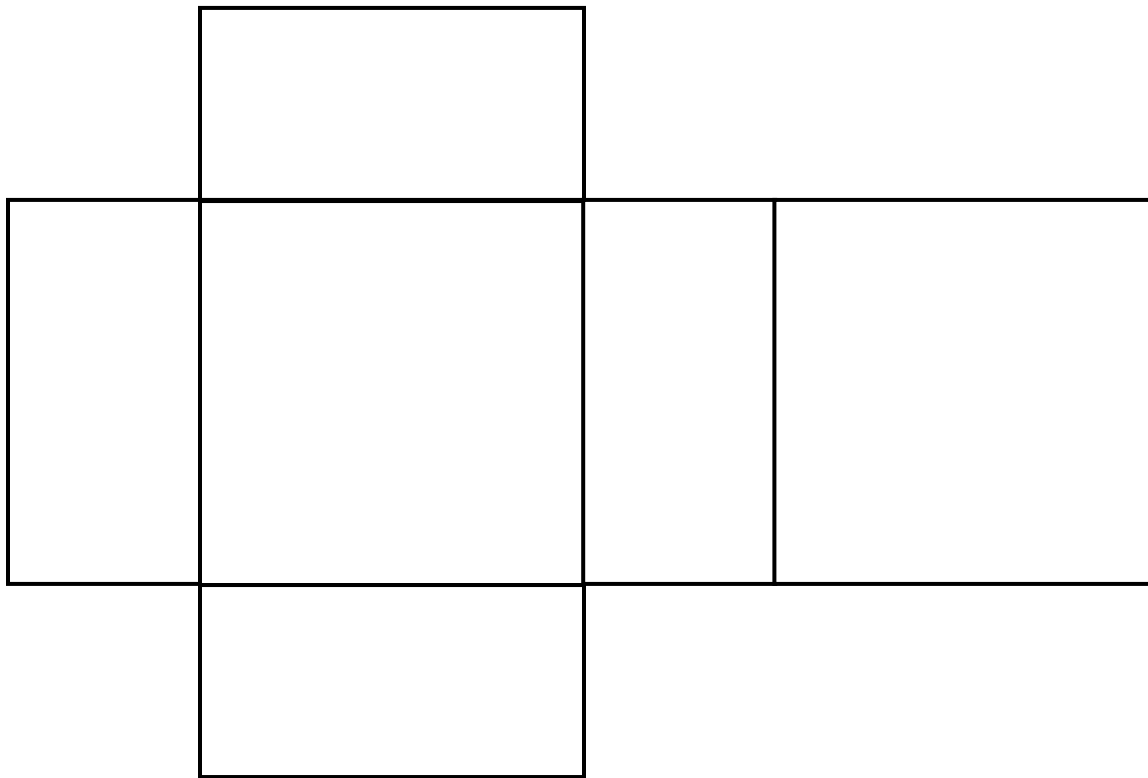
Materials:

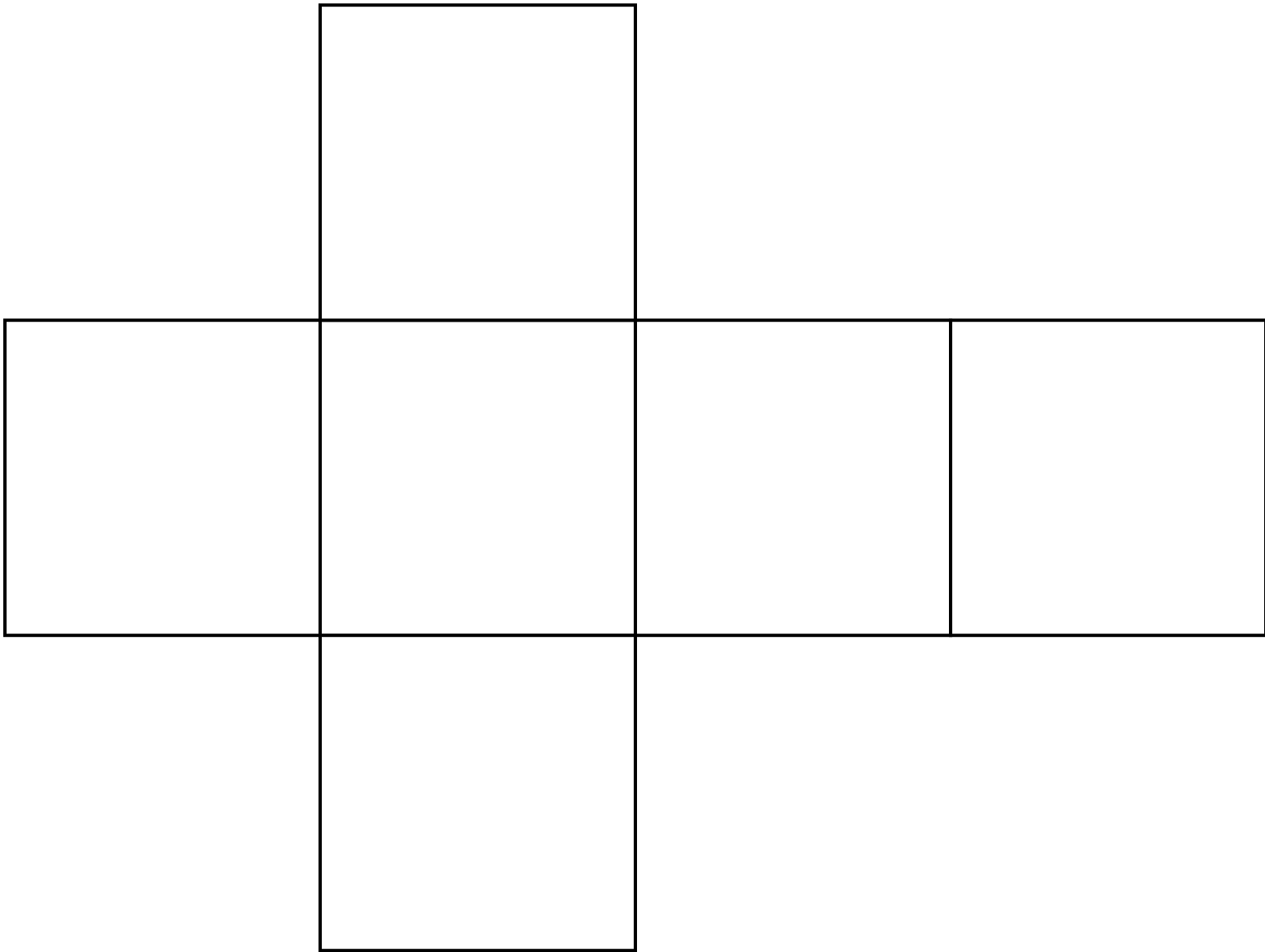
area = length x width

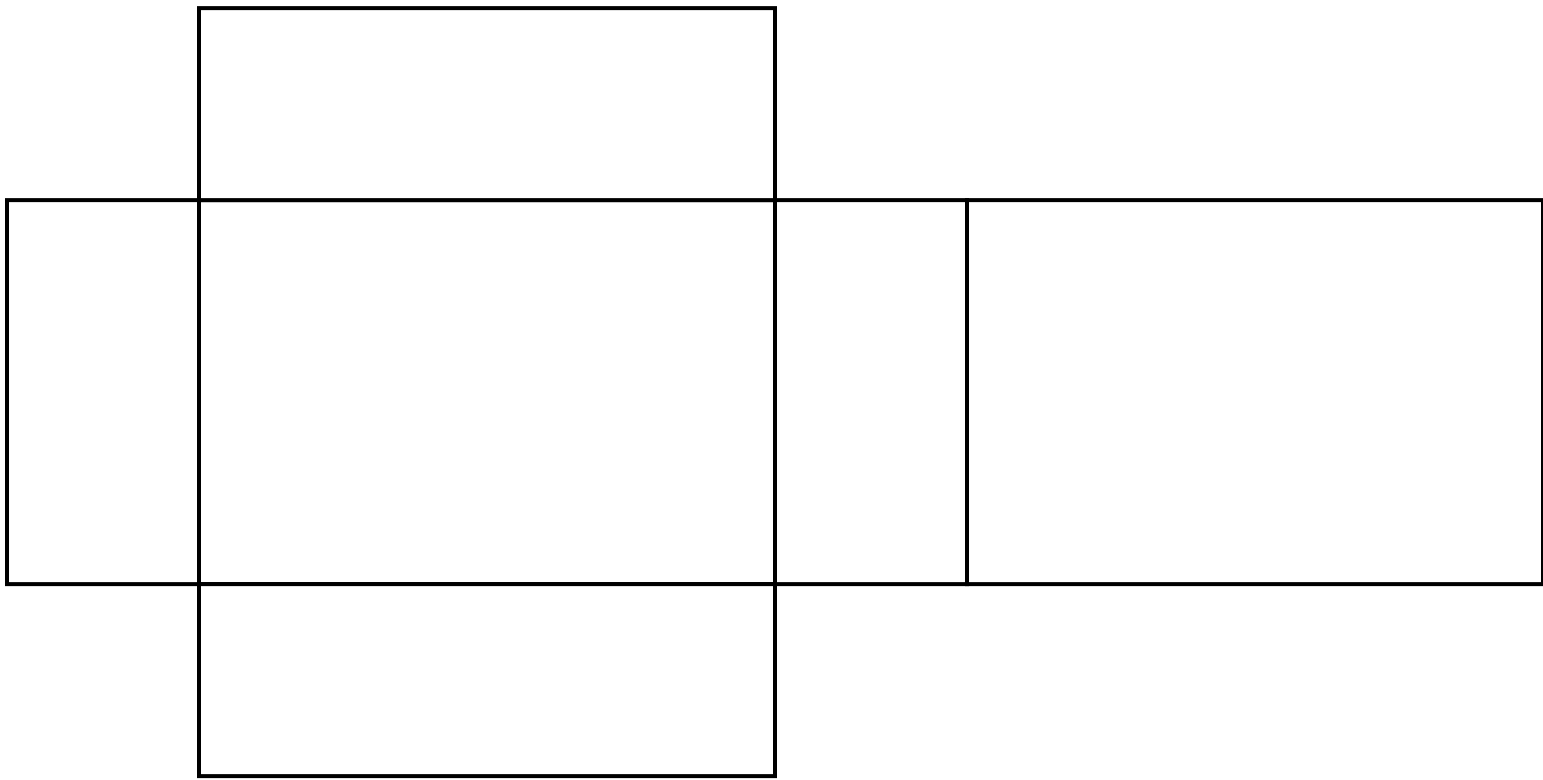
Example of poster board labeled with length and width:



$$\text{surface area} = 2(\text{length} \times \text{height}) + 2(\text{height} \times \text{width}) + 2(\text{width} \times \text{length})$$







Student Vocabulary Card:



Perimeter = The edge along the outside of the shape.



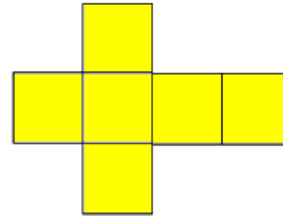
Area = The space inside the perimeter.



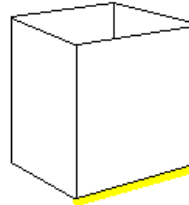
Length = The longest side of the rectangle.



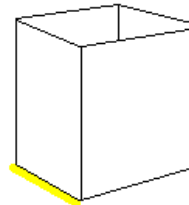
Width = The shortest side of the rectangle.



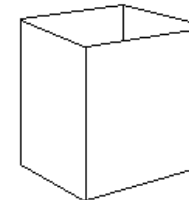
Surface Area = The space inside the perimeter of the net.



Length = The longest side.



Width = The shortest side.



Height = The part that goes up and down.