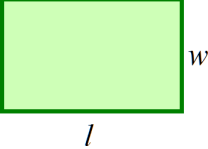
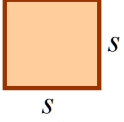
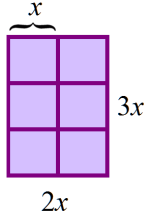
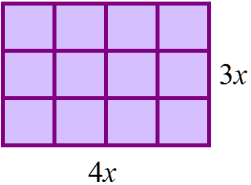
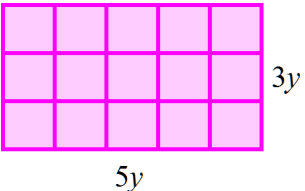
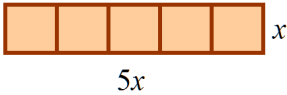
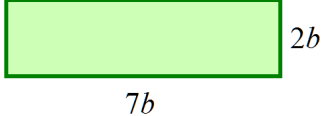


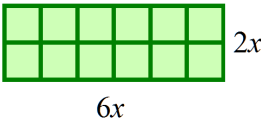
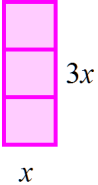
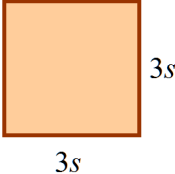

## Writing and Simplifying Expressions 2: Area

	<p>The two sides of this rectangle are <math>l</math> and <math>w</math>. Its area is <math>lw</math>, because, as you know, we multiply the length and the width to find the area of a rectangle.</p> <p>(What is its perimeter?)</p>
	<p>In the case of a square, the expression for the area is <math>s \cdot s</math>. We can simplify it using an exponent: <math>s^2</math>.</p>
	<p>Here, each little square has a side of length <math>x</math>. The lengths of the sides of the whole rectangle are <math>2x</math> and <math>3x</math>. We multiply them to get the area: <math>A = 3x \cdot 2x = 6 \cdot x \cdot x = 6x^2</math>.</p> <p>Notice that each LITTLE square has an area of <math>xx = x^2</math>. There are six of these little squares, giving us a total area of <math>6x^2</math>.</p>

1. Write an expression for the **area** of the rectangle, and simplify it.

<p><b>a.</b></p> <div style="text-align: center;">  </div>	<p><b>b.</b></p> <div style="text-align: center;">  </div>
<p><b>c.</b></p> <div style="text-align: center;">  </div>	<p><b>d.</b></p> <div style="text-align: center;">  </div>

2. Write an expression for both the **area and perimeter** of each rectangle. Give them in simplified form.

<p><b>a.</b> A =</p> <p>P =</p> <div style="text-align: center;">  </div>	<p><b>b.</b> A =</p> <p>P =</p> <div style="text-align: center;">  </div>
<p><b>c.</b> A =</p> <p>P =</p> <div style="text-align: center;">  </div>	<p><b>d.</b> A =</p> <p>P =</p> <div style="text-align: center;">  </div>