***Stretching and Shrinking* Unit Test Review**

**Standards**

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| 7.G.1: Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing.  |
| 7.G.1: Reproduce a scale drawing at a different scale.  |
| 7.G.6: Solve real-world and mathematical problems involving area of two-dimensional objects composed of triangles, quadrilaterals, and other polygons.  |

1. **Below are several pairs of similar figures. In each, find the missing measurement(s). Show your thinking!!!**

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1. **Which rectangles below are similar? Explain why.**



**The coach took a digital photo of the new cycling team bike. She sent a 4 cm-by-6 cm photo to each team member. Suppose you want to make a 2 cm-by-3 cm copy of the original photo.**



1. How will the angles in the original photo compare to the corresponding angles in the smaller photo?
2. How will the perimeter of the original photo compare to that of the smaller photo? Provide a numerical justification as a part of your answer.
3. How will the area of the original photo compare to that of the smaller photo? Provide a numerical justification as a part of your answer.

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| 1. **Rectangle A is sketched at right. Rectangle B is similar to Rectangle A. The scale factor from A to B is 3.25. Draw and label rectangle B on the grid below.**
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1. **A figure has a perimeter of 40 ft and an area of 51 ft2. A similar figure is created using a scale factor of 1.5.**
	1. What is the perimeter of the new figure? Show your work.
	2. What is the area of the new figure? Show your work.
2. **A figure has a perimeter of 315 yd and an area of 235 yd2. A similar figure is created using a scale factor of 0.4.**
3. What is the perimeter of the new figure? Show your work.
4. What is the area of the new figure? Show your work.
5. **Find the area of the figures below by using the formulas for rectangles and triangles. Show ALL work.**

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