Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_

**2.5B NOTES – Similar Figures**

*Objective: name corresponding angles, and corresponding sides of similar figures; identify similar figures; find unknown measures of similar figures. CC.SS.8.G.4 HW: 2.5B worksheet*

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| **EXAMLE 1:** Are the figures Similar? Use proportional strategy to prove your answer.   |
| **EXAMPLE 2:** An artist draws a replica of a painting this is on the Berlin Wall. The painting includes a red trapezoid. The shorter base of the similar trapezoid in the replica is 3.75 inches. What is the height *h* of the trapezoid in the replica?    |
| **EXAMPLE 3:** The artist draws a larger replica of the paining in Example 3. The shorter base of the similar trapezoid is 10 inches. What is the height h of this trapezoid? |

**EXAMPLES.** Round to the nearest hundredth if necessary.

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| --- | --- |
| 1. What is the height *x* of the flagpole?

 Assume the triangles are similar.  | 1. **Similar Test Questions #18:** A person standing 56 feet from a street light casts a shadow as shown. What is the height *h* of the street light? The street light is how many times taller than the person? Assume the triangles are similar.

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| 1. What is the height *x* of the flagpole? Assume the triangles are similar.

  | 1. A person standing 21 feet from a street light casts a shadow as shown. The street light is how many times taller than the person? Assume the triangles are similar.

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| **Similar Test Question to #15:** Consider a figure in a coordinate plane. For each of the transformations below, first transform the figure as stated. Then reverse the order of the sentences and transform the original figure a second time. Did the sequences result in the same image or different image? HINT: Pick one point to test. 1. Translate 2 units down, and then reflect in the y –axis.

Image result for graph paper Image result for graph paperThe sequences result in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ image. 1. Reflect over the y-axis, and then translate 3 right and 3 down.

Image result for graph paper Image result for graph paperThe sequences result in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ image.  |
| **Similar Test Question to #6:** The red figure is congruent to the blue figure: Which would best describe a sequence of transformations in which the blue figure is the image of the red figure? (textbook pg 64. Ex. 5) **B****R** |

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_\_\_\_\_\_\_\_ Per:\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_

**2.5B Similar Figures – Exit Slip**

In a coordinate plane, draw the figures with the given vertices. Which figures are similar? Explain your reasoning.

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| 1. Rectangle A: (0,0), (4,0), (4,2), (0,2)

Rectangle B: (0,0), (-6,0), (-6,3), (0,3)Rectangle C: (-8,8), (2,8), (2,4), (-8,4) | EXPLAIN |
| 1. Figure A: (-4,2), (-2,2), (-2,0), (-4,0)

Figure B: (1,4), (4,4), (4,1), (1,1)Figure C: (2,-1), (5,-1), (5,-3), (2,-3) | EXPLAIN |