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

**2.5B Similar Figures\_Classwork**

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

**EXAMPLE 3 (p. 73)**

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| 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?    |

**For You To Do**

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| **EXTRA 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**

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

 Assume the triangles are similar.  | 1. A person standing 56 feet from a street light casts a shadow as shown. What is the height *h* of the street light? Assume the triangles are similar.

 |
| 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. What is the height h of the street light? Assume the triangles are similar.

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

2.5B Classwork – Similar Figures

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| --- |
| 1. A flagpole casts a 20-foot shadow. At the same time, Shane, who is 6 feet tall, casts a 5-foot shadow. What is the height of the flagpole? Assume the triangles are similar.

  |
| 1. Ruth is at the park standing next to a slide. Ruth is 5 feet tall, and her shadow is 4 feet long.

 If the shadow of the slide is 4.8 feet long, what is the height of the slide? Assume the triangles are similar.  |
| 1. The figures are similar. Find x.

  |
| 1. The figures are similar. Find x.

 |
| 1. A person standing 45 feet from a street light casts a shadow as shown. What is the height *h* of the street light? Assume the triangles are similar.

  |

Solutions: 1) 24 ft. 2) 6 ft. 3) 7.2 in. 4) 40.5m 5) 36 ft.