**Secondary Math 2 3.3 Homework Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_**

**Proofs with Similar Triangles**

1. **Decide whether the following triangles are similar; if they are, state 1) the similarity postulate that justifies your answer and 2) the similarity statement.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| a) |  | b) |  | c) |  |

1. **Find all the angle measures and side lengths for each triangle of the given similar pairs.**

|  |  |  |  |
| --- | --- | --- | --- |
| a) | $$⊿ABC \~ ⊿DEF$$ | b) | $$⊿JKL\~⊿MNP$$ |

**Review Problems:**

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| --- | --- | --- | --- |
|  | Solve for x: |  | Solve for x: |
|  | Find $m∠A$, $m∠B$, and $m∠C$. |  | Find the length of $\overbar{FG}$ given that $\overbar{IJ}$ is a midsegment of the triangle.  |

**Extended Understanding:**

1. To measure$ \overbar{BC}$, the distance across a lake, a surveyor stands at point *A* and locates points *B*, *C*, *D*, and *E*. If $⊿ABC\~⊿ADE$ what is the distance across the lake?

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1. Sheila is standing near the Eiffel Tower in Paris, France. The shadow of the monument is 580 feet long, and Sheila’s shadow is 3 feet long. If Sheila is 5 feet 6 inches tall, how tall is the monument?

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| --- | --- |
|  |  |