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| 1. Triangle *JKL* is similar to triangle *MNP*.**a.** Identify and write the corresponding sides and angles of the two triangles. | 2. Triangles *ABC* and *ADE* share angle *A* and **a.** Show your work and determine if triangle *ABC* is similar to *ADE*.  |
| 3. Carla looks from a height of 6 meters at the top of her apartment building. If the flagpole is 36 meters from the apartment building, how tall is the flagpole? *[Hint: draw the two triangles separately and in the same orientation]* | 4. Victoria holds a 4-foot-long fishing pole. The fishing line extends 7 feet to the water’s surface and then another 11.2 feet to a hook. How far is the fish from the hook? |
| 5. Triangle  is a dilation of triangle *MNO* with the center of dilation at the origin.**a.** What is the scale factor? | 6. Given the two triangles shown.**a.** Determine the transformation used to create triangle *XYZ*. |
| 7. Write the theorems or postulates that show the pair of triangles are congruent. | 9. Use a two-column proof.Given: $\overbar{PS}≅\overbar{RQ}$ Prove: $∠P≅∠R$

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| Statements | Reasons |
| **1.** $∠PQR \& ∠RQS$ are right angles | **1.** Given |
| **2.** ? | **2.** Given |
| **3.** ? | **3.** Reflexive Prop. $≅$ |
| **4.** $△PQS≅△RSQ$ | **4.** ? |
| **5.** $∠P≅∠R$ | **5.** ? |

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| 8.In the figure shown, $\overbar{PS}≅\overbar{RS}$. Which theorem can be used to prove $△PQS≅△RQS$? |

Answers to Unit 6 Practice Test

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| 1. $∠J \& ∠M, ∠K \& ∠N, ∠L \& ∠P$,$$\overbar{JK}≅\overbar{MN}, \overbar{KL}≅\overbar{NP}, \overbar{JL}≅\overbar{MP}$$ | 2. $\frac{15}{21}=\frac{5}{7} \& \frac{20}{36}=\frac{5}{9}$ not equal fractions, so not similar |
| 3. 2 meters | 4. 6.4 ft |
| 5. 3 | 6. Rotation |
| 7. HL | 9-2. $\overbar{PS}≅\overbar{RQ}$9-3. $\overbar{QS}≅\overbar{SQ}$ or $\overbar{QS}≅\overbar{QS}$9-4. HL9-5. CPCTC |
| 8. SAS |

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