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| **Unit 2 – Dilations & Similarity Study Guide** | Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blk: \_\_\_\_\_ |
| 1) A dilation is a transformation that results in similar shapes. Therefore, the corresponding parts of both shapes share these properties except which one?  A) Congruent angles B) Parallel sides C) Co-linear points D) Proportional sides E) Congruent sides | |
| 2) Dilate the polygon by a scale factor of 1.5 about the origin **and list the post-image points as decimals**.    **W’ = \_\_\_\_\_\_**  **T’ = \_\_\_\_\_\_\_**  **F’ = \_\_\_\_\_\_\_**  **K’ = \_\_\_\_\_\_\_** | 3) Dilate the triangle by a scale factor of ½ about the origin **and list the post-image points as decimals**.    **J’ = \_\_\_\_\_\_**  **B’ = \_\_\_\_\_\_\_**  **G’ = \_\_\_\_\_\_\_** |
| In the figure at right, determine the following information:  4) Stretch or Shrink  5) Scale Factor: \_\_\_\_\_\_\_\_ |  |
| *Triangle Similarity Proofs* | |
| Write the triangle similarity statement and by theorem using  **SHOW YOUR PROPORTIONS!** | |
| 6) \_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_ | 7) \_\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_ |
| 8) \_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_ | 9) \_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_ |

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| *Triangle Proportionality & Midsegment Theorem* | | | | |
| 10) Find x. | 11) If , find the perimeter of each triangle listed below.    Perimeter of = \_\_\_\_\_\_, Perimeter of = \_\_\_\_\_\_ | | | |
| *Applications of Similarity - Solve each word problem to two decimals.* | | | | |
| 12) In the diagram at right, a man looks down at a mirror from an eye level of 6 ft. His toes are 3.5 feet from the mirror’s center which is 10.5 ft from a vertical line draw from the top of the signal to the ground. If he can see the top-front of the signal, how high is it? | |  | | |
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