Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Dilations Graphic Organizer** Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Congruent vs. Similar**

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| **Congruent ()**  Having the same\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_. All corresponding parts are \_\_\_\_\_\_\_\_\_.  **Translation (slide), Reflection (flip), Rotation (turn)** | **Similar ( ~ )**  Having the same \_\_\_\_\_\_\_\_\_\_, but not necessarily the same \_\_\_\_\_\_\_\_\_. All corresponding \_\_\_\_\_\_\_ are equal and corresponding \_\_\_\_\_\_\_ are proportional.  **Dilation**  **(larger or smaller)** |
| **Dilation**  *(Images get\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)* | |
| **Transformation that changes the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a figure, but not the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**  **(x, y) → (kx, ky)**  **k is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**  **If K (scale factor) is less than 1, then your figure gets\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**  **If K (scale factor) is greater than 1, then your figure gets \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** | |

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| Example 1: Larger  Graph the dilated image of the shape NRXS using a scale factor of 1.5 and (0,0) as the center of dilation. K = 1.5 or   |  |  | | --- | --- | | N  (-2, 2) | N’ | | R  (-1, -2) | R’ | | X  (3, 1) | X’ | | S  (3, 0) | S’ | | Example 2: Smaller  Graph the dilated image of the diamond A, B, C, D using a scale factor of and (0,0) as the center of dilation. K =   |  |  | | --- | --- | | A | A’ | | B | B’ | | C | C’ | | D | D’ | |

Dilation Practice:

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| 1. Graph the dilated image of the triangle SZT using a scale factor of 2 and (0,0) as the center of dilation.   K= | 1. Graph the dilated image of the triangle DLW using a scale factor of and (0,0) as the center of dilation.   K= |
| 1. Graph the dilated image of the triangle SZT using a scale factor of 1.5 and (0,0) as the center of dilation.   K= | 1. Graph the dilated image of the triangle A(1,1), B (1,3), C (3,1) using a scale factor of 3 and (0,0) as the center of dilation.   K=    C  B  A |
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