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: LargerGraph 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 $\frac{3}{2}$

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| N(-2, 2) | N’ |
| R(-1, -2) | R’ |
| X(3, 1) | X’ |
| S(3, 0) | S’ |

 | Example 2: SmallerGraph the dilated image of the diamond A, B, C, D using a scale factor of $ \frac{1}{3}$ and (0,0) as the center of dilation. K = $\frac{1}{3}$

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| A | A’ |
| B | B’ |
| C | C’ |
| D | D’ |

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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 $\frac{1}{2}$ 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=CBA |
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