Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #:\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_

**2.7B Dilations\_Classwork**

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| **REVIEW**  Use Point A(2,3)   1. (x, y) 🡪 (2x, 2y) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Image coordinate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. (x, y) 🡪 (x, y) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Image coordinate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. (x, y) 🡪 (2.5x, 2.5y) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Image coordinate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. (x, y) 🡪 (0.5x, 0.5Y) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Image coordinate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Watch the video if you need help: <https://www.youtube.com/watch?v=EYKsegMY8M8>

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| 1.    Graph the dilated image of triangle JKL using a scale factor of 2 and (0, 0) as the center of dilation.  Notation Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  J: K: L:  J’: K’: L’: | 2.    Graph the dilated image of quadrilateral MNOP using scale factor of 3 and the origin as the center of dilation.  Notation Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  M: N: O: P:  M’: N’: O’: P’: |
| 3.    Graph the dilated image of triangle XYZ using a scale factor of 1.5 and (0, 0) as the center of dilation  Notation Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  X: Y: Z:  X’: Y’: Z’: | 4.    Graph the dilated image of quadrilateral MNOP using a scale factor of 1/3 and (0, 0) as the center of dilation  Notation Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  M: N: O: P:  M’: N’: O’: P’: |

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| 1. Triangle ABC is dilated by a scale factor of 3 2. Draw and its image after a dilation with scale factor of 3.   **A (1, 3) B (2, 3) C (2, 1)**   1. Identify the coordinate notation.   **(x,y) 🡪 ( )**   1. Identify the type of dilation. 2. Identify the coordinates of the image.   A’ ( ) B’ ( ) C’ ( ) |  |
| 1. Rectangle WXYZ is dilated by a scale factor of ¼. 2. Draw WXYZ and its image after a dilation with scale factor of ¼. (HINT: ¼ = 0.25)   **W (-4, -6) X (-4, 8) Y (4, 8) Z (4, -6)**   1. Identify the coordinate notation.   **(x,y) 🡪 ( )**   1. Identify the type of dilation. 2. Identify the coordinates of the image.   W’ ( ) X’ ( )  Y’ ( ) Z’ ( ) |  |
| 1. Figure JKLM is dilated by a factor of . If point K of figure JKLM is (6, 9), what are the coordinates of K’   after the scale factor of is applied? | |

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| **WARM-UP**  The ratio of the corresponding linear measures of two similar cans of vegetables is 2 to 3.  The smaller can has a surface area of 300 square centimeters. What is the surface area of the bigger can? |

*Objective: Dilate figures in the coordinate plane; write notation rule for dilation. CC.SS.8.G.3 and G.4*

*worksheet 2.7B HW*