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) 🡪 ($\frac{1}{4}$x, $\frac{1}{4}$y) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Image coordinate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. (x, y) 🡪 (2.5x, 2.5y) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Image coordinate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. (x, y) 🡪 (0.5x, 0.5Y) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Image coordinate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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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 dilationNotation 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 dilationNotation 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 $∆ABC$ 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 $\frac{1}{3}$. If point K of figure JKLM is (6, 9), what are the coordinates of K’

 after the scale factor of $\frac{1}{3}$ 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*