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

**2.4A Rotations\_Classwork (1)**

*OBJECTIVE: rotate the figures 90 degrees clockwise, 180 degrees, 270 degrees clockwise, 90 degrees counterclockwise about the origin. CCSS: 8.G.1, 2 and 3*

*Record the Pre-Image and Image coordinate pairs for each problem.*

**Rotate 90 degrees counterclockwise about the origin**

|  |  |  |
| --- | --- | --- |
| **1.**    F F’  G G’  H H’ | **2.**    J J’  K K’  L L’ | **3.**    D D’  E E’  F F’  G G’ |

**Do you notice a pattern? What happens to the coordinates of the Pre-Image when they are rotated about the origin?**

|  |
| --- |
| Your Finding: |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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

**2.4A Rotations\_Classwork (2)**

*OBJECTIVE: rotate the figures 90 degrees clockwise, 180 degrees, 270 degrees clockwise, 90 degrees counterclockwise about the origin. CCSS: 8.G.1, 2 and 3*

*Record the Pre-Image and Image coordinate pairs for each problem.*

**Rotate 90 degrees clockwise about the origin**

|  |  |  |
| --- | --- | --- |
| **1.**    S S’  U U’  T T’ | **2.**    U U’  W W’  V V’ | **3.**    L L’  M M’  N N’ |

**Do you notice a pattern? What happens to the coordinates of the Pre-Image when they are rotated about the origin?**

|  |
| --- |
| Your Finding: |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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

**2.4A Rotations\_Classwork (3)**

*OBJECTIVE: rotate the figures 90 degrees clockwise, 180 degrees, 270 degrees clockwise, 90 degrees counterclockwise about the origin. CCSS: 8.G.1, 2 and 3*

*Record the Pre-Image and Image coordinate pairs for each problem.*

**Rotate 270 degrees clockwise about the origin**

|  |  |  |
| --- | --- | --- |
| **1.**    B B’  S S’  L L’ | **2.**    J J’  K K’  L L’ | **3.**    D D’  E E’  F F’  G G’ |

**Do you notice a pattern? What happens to the coordinates of the Pre-Image when they are rotated about the origin?**

|  |
| --- |
| Your Finding: |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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

**2.4A Rotations\_Classwork (4)**

*OBJECTIVE: rotate the figures 90 degrees clockwise, 180 degrees, 270 degrees clockwise, 90 degrees counterclockwise about the origin. CCSS: 8.G.1, 2 and 3*

*Record the Pre-Image and Image coordinate pairs for each problem.*

**Rotate 180 degrees about the origin**

|  |  |  |
| --- | --- | --- |
| **1.**    U U’  V V’  W W’ | **2.**    T T’  R R’  S S’ | **3.**    K K’  L L’  M M’  N N’ |

**Do you notice a pattern? What happens to the coordinates of the Pre-Image when they are rotated about the origin?**

|  |
| --- |
| Your Finding: |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Finding: RULE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Find the ordered pair after the designated rotation about the origin.

|  |  |  |
| --- | --- | --- |
| 1.  Rotate A(3, -5) 90o clockwise about the origin  Image result for graph | 2.  Rotate A(3, -5) 180o about the origin.  Image result for graph | 3.  Rotate A(3, -5) 90o counterclockwise about the origin.  Image result for graph |
| 4.  Rotate B(2, 4) 90o clockwise about the origin  Image result for graph | 5.  Rotate B(2, 4) 180o about the origin.  Image result for graph | 6.  Rotate B(2, 4) 90o counterclockwise about the origin.  Image result for graph |

WARM UP

|  |  |
| --- | --- |
| 1. A figure lies entirely in Quadrant IV. If you  reflect in the y-axis, in which quadrant is the  image? | 2. A figure lies entirely in Quadrant III. If you  reflect in the x-axis, in which quadrant is the  image? |

HW: (2.4A) p. 65 #2 – 5, 7 – 12, 30 – 33 (solutions on p. A14)

