Name: _____ Date: _____

Rigid Transformations Overview - Medium

Find the image of the point under the transformation.

1. (-3, -4); rotation 90° clockwise about the origin
2. (-2, -9); translation 6 left, 3 down
3. (4, -1); (x, y) -> (x - 5, y - 8)
4. (6, -7); (x, y) -> (y, -x)
5. (8, -7); (x, y) -> (x + 7, y + 1)
6. (6, -2); rotation 90° clockwise about the origin
7. (8, -9); (x, y) -> (x, -y)
8. (-2, -5); (x, y) -> (y, -x)
9. (-1, -9); reflection over the x-axis
10. (-8, 3); (x, y) -> (x + 4, y - 6)

Name: _____ Date: _____

Rigid Transformations Overview - Medium

Find the image of the point under the transformation.

11. (-9, 5); (x, y) -> (x - 1, y + 3)

12. (6, -9); rotation 180° about the origin

13. (-5, 7); translation 5 right, 4 up

14. (9, -3); (x, y) -> (-x, -y)

15. (4, 6); (x, y) -> (-y, x)

16. (-4, 3); rotation 90° counterclockwise about the origin

17. (6, 5); (x, y) -> (x + 5, y + 1)

18. (-3, 3); (x, y) -> (x + 8, y + 1)

19. (2, -8); translation 5 right, 8 down

20. (4, -6); reflection over the x-axis

Rigid Transformations Overview – Medium – Answer Key

1. (-3, -4); rotation 90° clockwise about the origin
   (-4, 3)
2. (-2, -9); translation 6 left, 3 down
   (-8, -12)
3. (4, -1); (x, y) -> (x - 5, y - 8)
   (-1, -9)
4. (6, -7); (x, y) -> (y, -x)
   (-7, -6)
5. (8, -7); (x, y) -> (x + 7, y + 1)
   (15, -6)
6. (6, -2); rotation 90° clockwise about the origin
   (-2, -6)
7. (8, -9); (x, y) -> (x, -y)
   (8, 9)
8. (-2, -5); (x, y) -> (y, -x)
   (-5, 2)
9. (-1, -9); reflection over the x-axis
   (-1, 9)
10. (-8, 3); (x, y) -> (x + 4, y - 6)
    (-4, -3)

Rigid Transformations Overview - Medium - Answer Key

11. (-9, 5); (x, y) -> (x - 1, y + 3)
    (-10, 8)

12. (6, -9); rotation 180° about the origin
    (-6, 9)

13. (-5, 7); translation 5 right, 4 up
    (0, 11)

14. (9, -3); (x, y) -> (-x, -y)
    (-9, 3)

15. (4, 6); (x, y) -> (-y, x)
    (-6, 4)

16. (-4, 3); rotation 90° counterclockwise about the origin
    (-3, -4)

17. (6, 5); (x, y) -> (x + 5, y + 1)
    (11, 6)

18. (-3, 3); (x, y) -> (x + 8, y + 1)
    (5, 4)

19. (2, -8); translation 5 right, 8 down
    (7, -16)

20. (4, -6); reflection over the x-axis
    (4, 6)