Name: _____

G.CO.A.5: Rotations 1b

1 What are the coordinates of A', the image of $A(-3,4)$, after a rotation of 180º about the origin?

2 If point $(5,2)$ is rotated counterclockwise 90° about the origin, its image will be point

3 What are the coordinates of M', the image of $M(2,4)$, after a counterclockwise rotation of 90º about the origin?

4 What is the image of point $(8,-4)$ under the rotation $R_{90°}$ about the origin?

5 The transformation $R_{90°}$ maps point $(5,3)$ onto the point whose coordinates are

6 What is the image of $A(5,2)$ under $R_{90°}$?

7 The coordinates of point P are $(7,1)$. What are the coordinates of the image of P after $R_{90°}$ about the origin?

8 What are the coordinates of the image of $P(-2,5)$ after a clockwise rotation of 90º about the origin?

9 What are the coordinates of the image of $(2,-5)$ after a counterclockwise rotation of 90º about the origin?

10 What is the image of the point $(-3,-6)$ on rotation of 90° about the origin?

11 What is the image of the point $(2,-3)$ under a clockwise rotation of 90° ($R_{-90°}$) about the origin?

12 The point $(-2,1)$ is rotated 180º about the origin in a clockwise direction. What are the coordinates of its image?

13 What is the image of $R_{90°}(1,2)$?

14 Write the coordinates of P', the image of $P(5,-1)$ after a clockwise rotation of 180° about the origin.

15 What is the image of $(5,1)$ under a counterclockwise rotation of 90°?

16 The point $(-3,4)$ is rotated 180º about the origin in a counterclockwise direction. What are the coordinates of its image?

17 What is the image of $(6,5)$ under a counterclockwise rotation of 180°?

18 Point A is rotated 180º in a counterclockwise direction about the origin. If the coordinates of A are $(-1,3)$, what are the coordinates of A', its image?

19 If point $P(3,-2)$ is rotated 90° about the origin, what is the image of P?

20 The coordinates of the endpoints of $\overline{BC}$ are $B(5,1)$ and $C(-3,-2)$. Under the transformation R_{90}, the image of $\overline{BC}$ is $\overline{B'C'}$. State the coordinates of points B' and C'.

G.CO.A.5: Rotations 1b
Answer Section

1 ANS:
$(3,-4)$
$(x,y) \rightarrow (-x,-y)$

REF: 061304ge

2 ANS:
$(-2,5)$

REF: 060809b

3 ANS:
$(-4,2)$

REF: 088534siii

4 ANS:
$(4,8)$

REF: 010435siii

5 ANS:
$(-3,5)$

REF: 089421siii

6 ANS:
$(-2,5)$

REF: 019727siii

7 ANS:
$(-1,7)$

REF: 011421ge

8 ANS:
$(5,2)$

REF: 019934siii

9 ANS:
$(5,2)$

REF: 080328siii

10 ANS:
$(6,-3)$

REF: 068016siii

11 ANS:
$(-3,-2)$

REF: 068109siii

12 ANS:
$(2,-1)$

REF: 068703siii

13 ANS:
$(-2,1)$

REF: 089308siii

14 ANS:
$(-5,1)$

REF: 018905siii

15 ANS:
$(-1,5)$

REF: 068910siii

16 ANS:
$(3,-4)$

REF: 069605siii

17 ANS:
$(-6,-5)$

REF: 089812siii

18 ANS:
$(1,-3)$

REF: 089908siii

19 ANS:
$(2,3)$

REF: 080109siii

20 ANS:
$(x,y) \rightarrow (-y,x)$

$B(5,1) \rightarrow B'(-1,5)$

$C(-3,-2) \rightarrow C'(2,-3)$

REF: 061429ge