Name: _____

G.CO.A.5: Translations 1b

1 What is the image of the point $(-5,2)$ under the translation $T_{3,-4}$?

2 When the transformation $T_{2,-1}$ is performed on point A, its image is point $A'(-3,4)$. What are the coordinates of A?

3 A translation moves $P(3,5)$ to $P'(6,1)$. What are the coordinates of the image of point $(-3,-5)$ under the same translation?

4 The image of point $(-2,3)$ under translation T is $(3,-1)$. What is the image of point $(4,2)$ under the same translation?

5 The image of the origin under a certain translation is the point $(2,-6)$. The image of point $(-3,-2)$ under the same translation is the point

6 Triangle ABC has vertices $A(1,3)$, $B(0,1)$, and $C(4,0)$. Under a translation, A', the image point of A, is located at $(4,4)$. Under this same translation, point C' is located at

7 The image of $\triangle ABC$ under a translation is $\triangle A'B'C'$. Under this translation, $B(3,-2)$ maps onto $B'(1,-1)$. Using this translation, the coordinates of image A' are $(-2,2)$. Determine and state the coordinates of point A.

8 A design was constructed by using two rectangles $ABDC$ and $A'B'C'D'$. Rectangle $A'B'C'D'$ is the result of a translation of rectangle $ABDC$. The table of translations is shown below. Find the coordinates of points B and D'.

Rectangle *ABDC*	Rectangle *A'B'D'C'*
A (2,4)	A' (3,1)
B	B' (-5,1)
C (2,-1)	C' (3,-4)
D (-6,-1)	D'

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

1 ANS:
$(-2,-2)$
$-5+3=-2 \qquad 2+-4=-2$

REF: 011107ge

2 ANS:
$(-5,5)$

REF: 011617ge

3 ANS:
$(0,-9)$
$(x,y) \rightarrow (x+3, y\ -\ 4).$

REF: 060309a

4 ANS:
$(9,-2)$
$(x,y) \rightarrow (x\ +\ 5, y\ -\ 4).$

REF: 010614a

5 ANS:
$(-1,-8)$
$(x,y) \rightarrow (x\ +\ 2, y\ -\ 6).$

REF: 080508b

6 ANS:
$(7,1)$
$(x,y) \rightarrow (x+3, y+1)$

REF: fall0803ge

7 ANS:
$T_{-2,1}$ $A(0,1)$

REF: 081431ge

8 ANS:
$B(-6,4), D'(-5,-4).$ $(x, y) \rightarrow (x\ +1, y\ -\ 3).$

REF: spring9823a