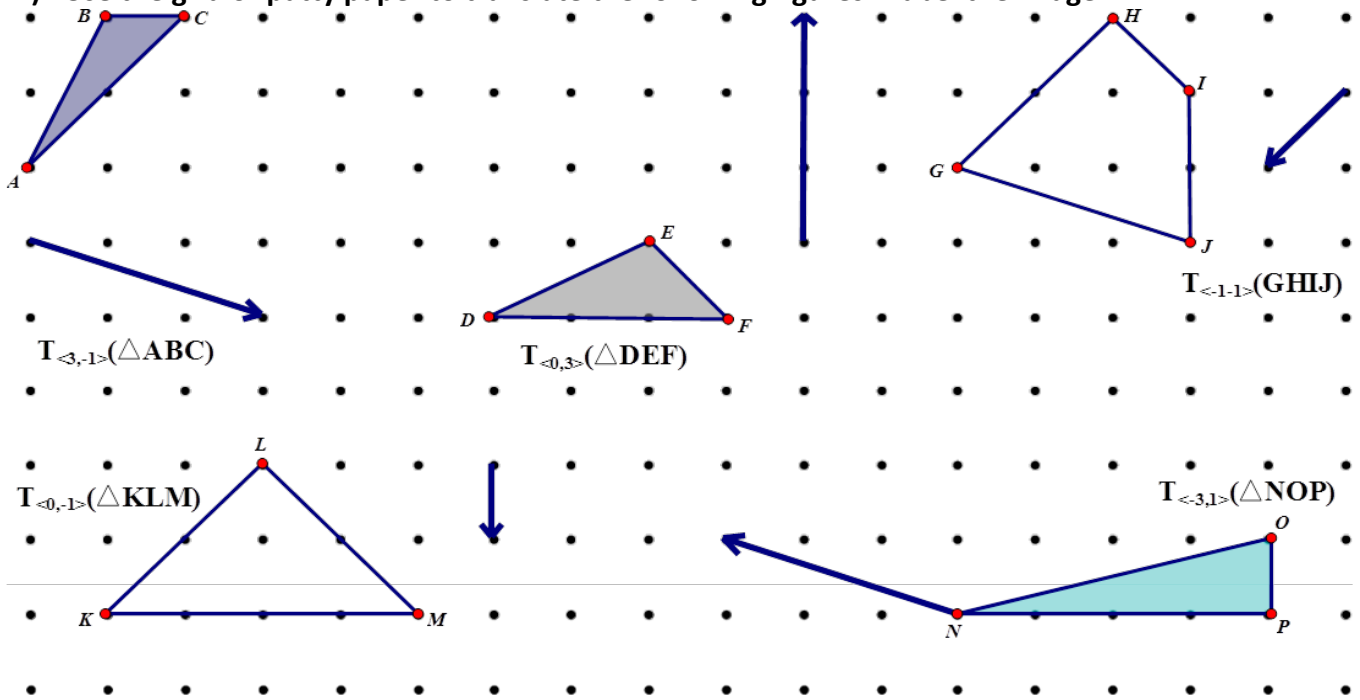
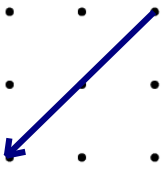

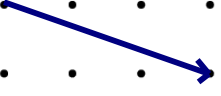


1) Use the grid or patty paper to translate the following figures. Label the image.



2) Determine the translation coordinate rule from the vector.

<p>a) $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$</p> 	<p>b) $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$</p> 	<p>c) $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$</p> 
---	---	---

3) Determine the translation rule from the pre-image and image.

- a) $A(3,5)$ $A'(-1,3)$ $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$
- b) $A(-4,11)$ $A'(3,0)$ $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$
- c) $A(0,-8)$ $A'(-1,-3)$ $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$
- d) $A(8,3)$ $A'(11,3)$ $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$

4) Given a translation rule, determine the missing point.

- a) $T(x, y) \rightarrow (x+3, y-5)$ $A(-4, 7)$ $A'(\underline{\quad}, \underline{\quad})$
- b) $T(x, y) \rightarrow (x-7, y-1)$ $A(9, 1)$ $A'(\underline{\quad}, \underline{\quad})$
- c) $T(x, y) \rightarrow (x+1, y+6)$ $A(\underline{\quad}, \underline{\quad})$ $A'(4, -1)$
- d) $T(x, y) \rightarrow (x, y+4)$ $A(8, -4)$ $A'(\underline{\quad}, \underline{\quad})$
- e) $T(x, y) \rightarrow (x+3, y+1)$ $A(\underline{\quad}, \underline{\quad})$ $A'(-4, 1)$



f) $T(x, y) \rightarrow (x-8, y-5)$ $A(\underline{\quad}, \underline{\quad})$ $A'(-3, -3)$

5) Convert between vector component form and coordinate form.

a) $T_{\langle -5, 2 \rangle}(A) =$ $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$

b) $T_{\langle 0, -12 \rangle}(A) =$ $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$

c) $T_{\langle -1.5, -7 \rangle}(A) =$ $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$

6) Write the coordinate rule that matches the description.

a) 4 down and 3 right $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$

b) Left 7 and down 2 $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$

c) Right 1 $T(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$

7) What is the resultant translation of Point A after mapping $T(x, y)$ followed by $R(x, y)$.

a) $A(-4, 8)$ $T(x, y) \rightarrow (x+3, y-7)$ $A'(\underline{\quad}, \underline{\quad})$ $R(x, y) \rightarrow (x-8, y-2)$ $A''(\underline{\quad}, \underline{\quad})$

b) $A(2, 0)$ $T(x, y) \rightarrow (x-1, y)$ $A'(\underline{\quad}, \underline{\quad})$ $R(x, y) \rightarrow (x-3, y+3)$ $A''(\underline{\quad}, \underline{\quad})$

c) $A(5, -11)$ $T(x, y) \rightarrow (x+7, y-11)$ $A'(\underline{\quad}, \underline{\quad})$ $R(x, y) \rightarrow (x-9, y+9)$ $A''(\underline{\quad}, \underline{\quad})$

8) Can you find a shortcut to doing two translations?

9) What is the pre-image of $A'(-5, 4)$ mapped by translation $T(x, y) \rightarrow (x-5, y+11)$?