

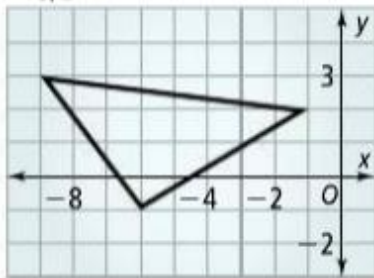
9.1 Translation Homework

P.550 #13-19, 22, 36

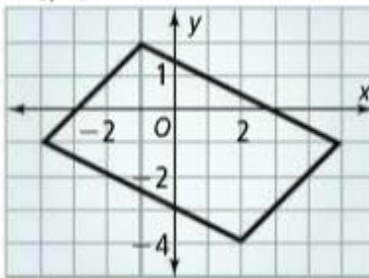
Copy each graph. Graph the image of each figure under the given translation.

➡ See Problem 3.

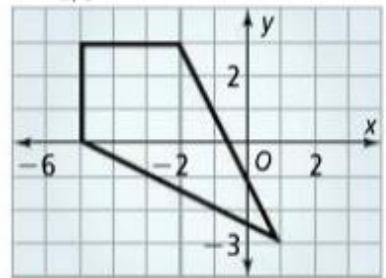
13. $T_{\langle 3, 2 \rangle}(x, y)$



14. $T_{\langle 5, -1 \rangle}(x, y)$



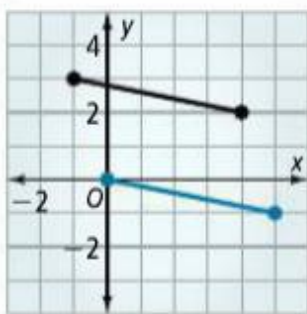
15. $T_{\langle -2, 5 \rangle}(x, y)$



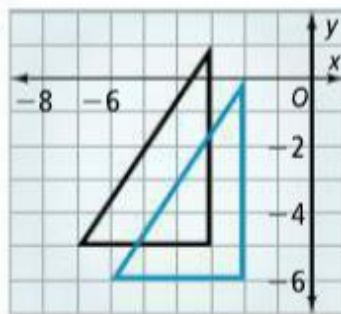
The blue figure is a translation image of the black figure. Write a rule to describe each translation.

➡ See Problem 4.

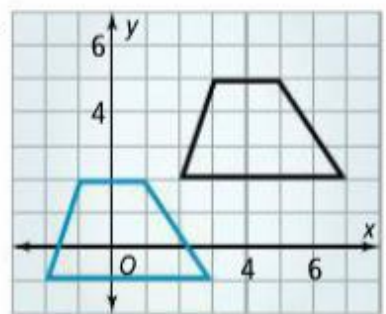
16.



17.



18.



19. **Travel** You are visiting San Francisco. From your hotel near Union Square, you walk 4 blocks east and 4 blocks north to the Wells Fargo History Museum. Then you walk 5 blocks west and 3 blocks north to the Cable Car Barn Museum. Where is the Cable Car Barn Museum in relation to your hotel?

➡ See Problem 5.

22. **Think About a Plan** $\triangle MUG$ has coordinates $M(2, -4)$, $U(6, 6)$, and $G(7, 2)$. A translation maps point M to $M'(-3, 6)$. What are the coordinates of U' and G' for this translation?

- How can you use a graph to help you visualize the problem?
- How can you find a rule that describes the translation?

36. $\triangle ABC$ has vertices $A(-5, 2)$, $B(0, -4)$, and $C(3, 3)$. What are the vertices of the image of $\triangle ABC$ after the translation $T_{\langle 7, -5 \rangle}(\triangle ABC)$?

- A $A'(2, -3)$, $B'(7, -9)$, $C'(10, -2)$

 C $A'(-12, 7)$, $B'(-7, 1)$, $C'(-4, 8)$
 B $A'(-12, -3)$, $B'(-7, -9)$, $C'(-4, -2)$

 D $A'(2, -3)$, $B'(10, -2)$, $C'(7, -9)$