

Name _____

Date _____

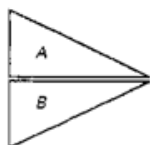
LESSON
9.1

Practice A

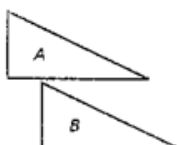
For use with pages 572-579

Decide whether Figure A is a translation of Figure B.

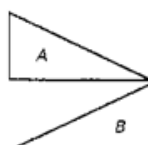
1.



2.

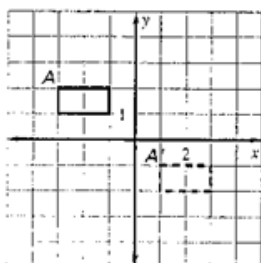


3.

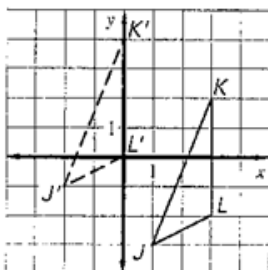


Write a translation rule for the image of each translation. $(x, y) \rightarrow (x + a, y + b)$

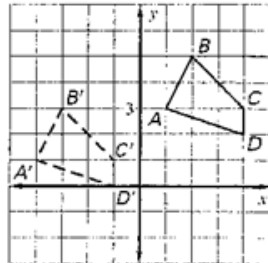
4.



5.

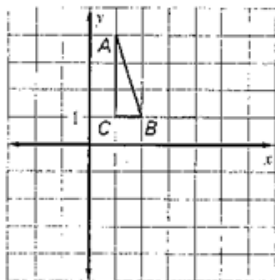


6.

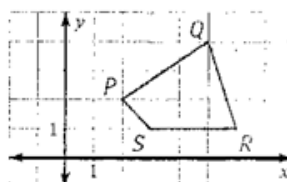


Draw the image of the figure after the given translation.

7. $(x, y) \rightarrow (x + 2, y - 2)$



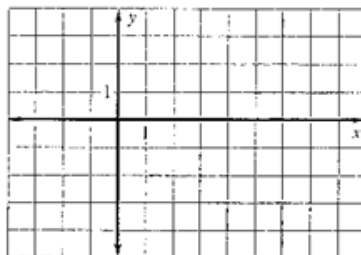
8. $(x, y) \rightarrow (x - 5, y + 3)$



Label the new figure with primes. (ie A' B' C')

The vertices of $\triangle ABC$ are $A(-1, 1)$, $B(4, -1)$, and $C(2, 4)$. Graph the image of the triangle using prime notation.

9. $(x, y) \rightarrow (x + 2, y - 3)$




Consider the translation that is defined by the coordinate notation $(x, y) \rightarrow (x - 5, y + 8)$.

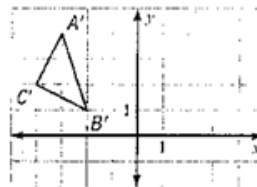
10. What is the image of $M(4, 2)$?

11. What is the image of $A(-1, 5)$?

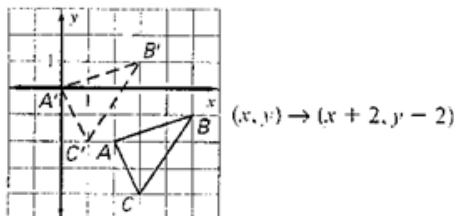
12. What is the preimage of $T'(-3, -4)$?

13. What is the preimage of $H'(7, -5)$?

14.  **You be the Judge** The figure on the grid shown at the right is the image after the translation $(x, y) \rightarrow (x - 6, y + 4)$. One of your classmates tells you that C on the original figure is $(2, -2)$. Do you agree? Explain your reasoning.



15. **Error Analysis** Describe and correct the error in graphing the translation of $\triangle ABC$.



Multiple choice.

16. Find the coordinates of T' using the translation $(x, y) \rightarrow (x - 5, y + 2)$.

- A (3, 7) B (10, 0)
 C (3, 5) D (-5, 7)

17. Find the coordinates of W' using the translation $(x, y) \rightarrow (x + 3, y - 3)$.

- B (5, 1) C (-1, 7)
 D (5, 7) E (-1, 1)

