

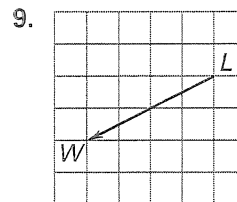
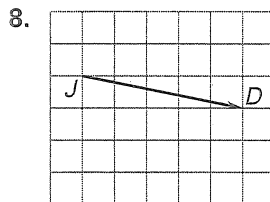
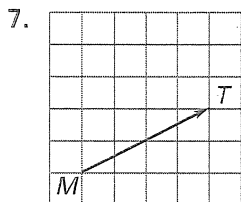
Practice C

For use with pages 421–428

Use coordinate notation to describe the translation.

- | | |
|---|----------------------------------|
| 1. 4 units to the right and 3 units up | 2. 5 units left and 2 units down |
| 3. 1 unit to the left and 1 unit up | 4. 3 units down |
| 5. 7 units to the left and 4 units down | 6. 10 units right and 8 units up |

Name the vector and write its component form.

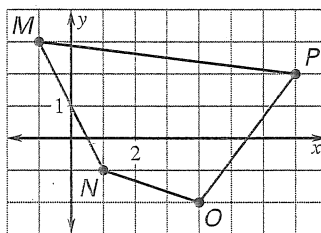


Given $\triangle ABC$ with vertices $A(-2, 4)$, $B(6, 2)$, and $C(3, -2)$ is translated to $\triangle A'B'C'$. Determine the translation using a vector in component form, and determine the coordinates of the remaining vertices.

- | | | |
|-----------------|------------------|-----------------|
| 10. $A'(3, -2)$ | 11. $C'(3, 4)$ | 12. $A'(-5, 5)$ |
| 13. $B'(2, -5)$ | 14. $C'(-4, -5)$ | 15. $B'(8, 6)$ |

Copy quadrilateral $MNOP$ and draw its image after the translation.

16. $(x, y) \rightarrow (x - 2, y + 4)$
 17. $(x, y) \rightarrow (x + 5, y + 1)$
 18. $(x, y) \rightarrow (x - 3, y - 7)$
 19. $(x, y) \rightarrow (x + 4, y - 5)$



20. Write a paragraph proof for a portion of Theorem 7.5.

Given: $k \parallel m$

P' is the reflection of P in line k .

P'' is the reflection of P' in line m .

Prove: $PP'' = 2d$, where d is the distance between k and m .

