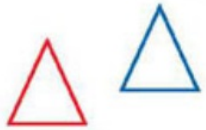
GUIDED PRACTICE

Tell whether each transformation appears to be a translation.

1. 

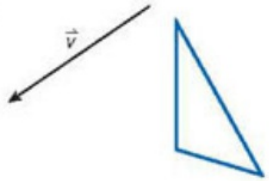
2. 

3. 

4. 

Multi-Step Copy each figure and the translation vector. Draw the translation of the figure along the given vector.

5. 

6. 

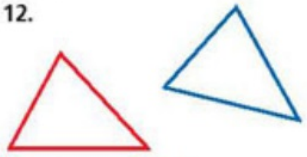
Translate the figure with the given vertices along the given vector.

7. $A(-4, -4)$, $B(-2, -3)$, $C(-1, 3)$; $\langle 5, 0 \rangle$
8. $R(-3, 1)$, $S(-2, 3)$, $T(2, 3)$, $U(3, 1)$; $\langle 0, -4 \rangle$
9. $J(-2, 2)$, $K(-1, 2)$, $L(-1, -2)$, $M(-3, -1)$; $\langle 3, 2 \rangle$

PRACTICE AND PROBLEM SOLVING

Tell whether each transformation appears to be a translation.

11. 

12. 

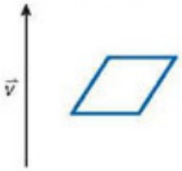
13. 

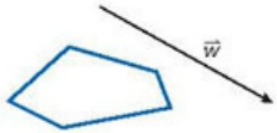
14. 

HW 9.2 Online

p614 #1-9, 11-20

Multi-Step Copy each figure and the translation vector. Draw the translation of the figure along the given vector.

15. 

16. 

Translate the figure with the given vertices along the given vector.

17. $P(-1, 2)$, $Q(1, -1)$, $R(3, 1)$, $S(2, 3)$; $\langle -3, 0 \rangle$
18. $A(1, 3)$, $B(-1, 2)$, $C(2, 1)$, $D(4, 2)$; $\langle -3, -3 \rangle$
19. $D(0, 15)$, $E(-10, 5)$, $F(10, -5)$; $\langle 5, -20 \rangle$

20. **Animation** An animator draws the ladybug shown and then translates it along the vector $\langle 1, 1 \rangle$, followed by a translation of the new image along the vector $\langle 2, 2 \rangle$, followed by a translation of the second image along the vector $\langle 3, 3 \rangle$.
    a. Sketch the ladybug's final position.
    b. What single vector moves the ladybug from its starting position to its final position?