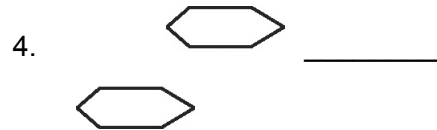
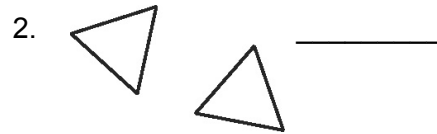
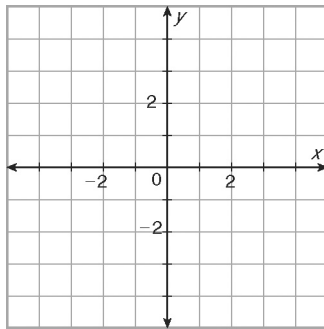


Tell whether each transformation appears to be a translation.

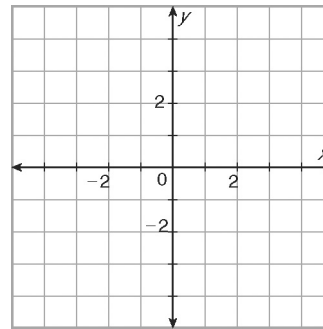


Translate the figure with the given vertices along the given vector.

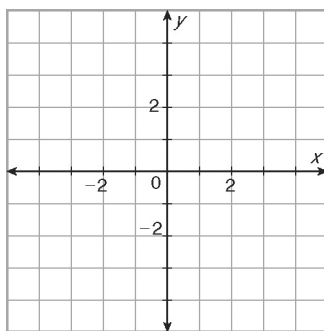
7. $A(-1, 3), B(1, 1), C(4, 4); \langle 0, -5 \rangle$



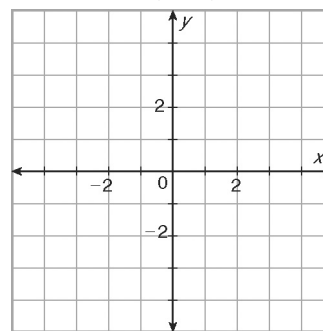
8. $P(-1, 2), Q(0, 3), R(1, 2), S(0, 1); \langle 1, 0 \rangle$



9. $L(3, 2), M(1, -3), N(-2, -2); \langle -2, 3 \rangle$



10. $D(2, -2), E(2, -4), F(1, -4), G(-2, -2); \langle 2, 5 \rangle$



11. A builder is trying to level out some ground with a front-end loader. He picks up some excess dirt at $(9, 16)$ and then maneuvers through the job site along the vectors $\langle -6, 0 \rangle$, $\langle 2, 5 \rangle$, and $\langle 8, 10 \rangle$ to get to the spot to unload the dirt. Find the coordinates of the unloading point. Find a single vector from the loading point to the unloading point.

