

Worksheet: Translations

1. What is the result of translating the point $(3,4)$ by 2 units right and 5 units down?
 - a. $(1,9)$
 - b. $(5,-1)$
 - c. $(3,9)$
 - d. $(5,1)$
2. If a point (x,y) is translated by (a,b) , what is the new position?
 - a. $(x+a,y+b)$
 - b. $(x-a,y-b)$
 - c. $(x+a,y-b)$
 - d. $(x-a,y+b)$
3. Translate the point $(0,-3)$ by 4 units left and 2 units up.
 - a. $(-4,5)$
 - b. $(-4,-1)$
 - c. $(4,-1)$
 - d. $(4,5)$
4. Which translation moves every point 3 units up?
 - a. Add 3 to the y -coordinate.
 - b. Add 3 to the x -coordinate.
 - c. Subtract 3 from the y -coordinate.
 - d. Subtract 3 from the x -coordinate.
5. What is the image of $(7,2)$ after a translation of $(-2,6)$?
 - a. $(9,8)$
 - b. $(5,-4)$
 - c. $(5,8)$
 - d. $(9,-4)$
6. A triangle has vertices at $(1,1), (4,1), (1,5)$. What are the vertices after translating by $(2,-3)$?
 - a. $(3,-2), (6,-2), (3,2)$
 - b. $(3,4), (6,4), (3,8)$
 - c. $(1,4), (4,4), (1,8)$
 - d. $(2,-2), (5,-2), (2,2)$
7. Which translation will move a point from $(2,8)$ to $(7,3)$?
 - a. $(+5,+5)$
 - b. $(+5,-5)$
 - c. $(-5,-5)$
 - d. $(-5,+5)$
8. Translate $(-6,2)$ by 6 units right and 4 units down.
 - a. $(0,6)$

- b. $(-12, -2)$
- c. $(0, -2)$
- d. $(12, 6)$

9. A rectangle is translated so that each vertex (x, y) becomes $(x+4, y-1)$. What is the translation vector?

- a. $(-4, 1)$
- b. $(4, 1)$
- c. $(4, -1)$
- d. $(-4, -1)$

10. If the point $(5, -7)$ is translated by $(-3, 9)$, where does it move to?

- a. $(8, 2)$
- b. $(2, -16)$
- c. $(2, 2)$
- d. $(8, -16)$

11. What is the translation that moves $(0, 0)$ to $(-4, 3)$?

- a. $(4, 3)$
- b. $(-4, -3)$
- c. $(-4, 3)$
- d. $(4, -3)$

12. Which point is the image of $(9, -1)$ after translating by $(-5, -2)$?

- a. $(14, -3)$
- b. $(4, -3)$
- c. $(4, 1)$
- d. $(14, 1)$

13. A translation moves every point 8 units to the left. What is the translation vector?

- a. $(0, 8)$
- b. $(-8, 0)$
- c. $(8, 0)$
- d. $(0, -8)$

14. Translate the point $(-2, -5)$ by $(3, 7)$.

- a. $(1, 2)$
- b. $(-5, -12)$
- c. $(5, 2)$
- d. $(1, -2)$

15. Which translation will move a point from $(4, 10)$ to $(4, 2)$?

- a. $(0, 8)$
- b. $(8, 0)$
- c. $(0, -8)$
- d. $(-8, 0)$