

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. $(-8,0)$