**Exercises - Parallel and Perpendicular Lines**

**1**

Which of the following equations represents a line that is parallel to the line with equation $y = -\frac{1}{2}x + 5$ and contains the point $(-2, \frac{1}{2})$?

A) $x - 2y = -3$

B) $x + 2y = -1$

C) $2x - y = -5$

D) $2x + y = -3$

**2**

Which of the following equations represents a line that passes through $(7, 6)$ and is parallel to the $x$- axis?

A) $x = 6$

B) $y = 7$

C) $y = 7$

D) $y = 6$

**3**

Which of the following equations represents a line that passes through $(-5, 1)$ and is parallel to the $y$- axis?

A) $y = -5$

B) $y = 1$

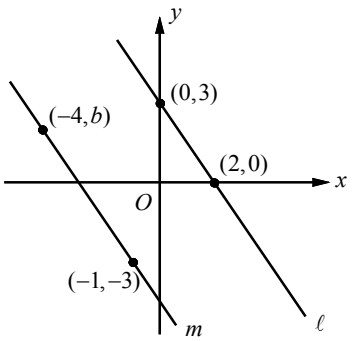
C) $x = -5$

D) $x = 1$

**4**

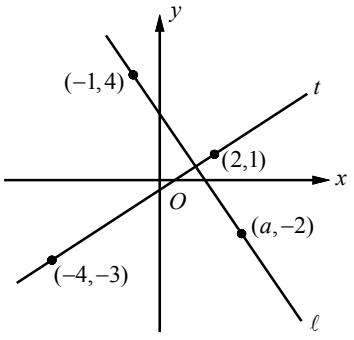
A line passes through the points $(-1, 2)$ and $(5, b)$, and is parallel to the graph of the equation $4x - 2y = 13$. What is the value of $b$?

**5**




In the $xy$- plane above, line $\ell$ is parallel to line $m$. What is the value of $b$?

**6**




In the $xy$- plane above, if line $\ell$ is perpendicular to line $t$, what is the value of $a$?