SAT calc allowed
Wednesday 10/03

In the system of equations below, k is a constant. What is the y-value of the solution to the system in terms of k?

$$5x - y = k \quad \text{Line}$$
$$2x + 3y = -1 \quad \text{Line}$$

$$ax + by = c$$

a) $\dfrac{k+1}{5}$

b) $\dfrac{1-3k}{17}$

c) $\dfrac{3k-1}{17}$

d) $\dfrac{-2k-5}{17}$

No Sol

(x,y)

intersection = solution

infinitely many sol.

$$-2(5x - y = k)$$
$$5(2x + 3y = -1)$$
$$-10x + 2y = -2k$$
$$10x + 15x = -5$$
$$\frac{17y}{17} = \frac{-2k - 5}{17}$$

$$y = \frac{-2k - 5}{17}$$