

2.22.16

er uses a forklift to move boxes that weigh either 40 pounds or 65 pounds each. Let x be the number of 40 pound boxes and y be the number of 65 pound boxes. The forklift can carry up to either 45 boxes or 2400 pounds. Which of the following systems of inequalities represents this relationship?

Total

$$\begin{cases} x + 65y \leq 2400 \\ x + y \leq 45 \end{cases}$$

~~A) $\begin{cases} \frac{x}{40} + \frac{y}{65} \leq 2400 \\ x + y \leq 45 \end{cases}$~~

$$\begin{cases} x + 65y \leq 45 \\ x + y \leq 2400 \end{cases}$$

~~B) $\begin{cases} 40x + 65y \leq 2400 \\ x + y \leq 2400 \end{cases}$~~

in the xy -plane, if $(0, 0)$ is a solution to the system of inequalities below, which of the following relations between a and b must be true?

$$y < -x + a$$

$$y > x + b$$

$0 < 0 + a \quad 0 < a$ or $0 > 0 + b \quad 0 > b$ neither

B) $b > a$

C) $|a| > |b|$

D) $a = -b$