

Identifying solutions to a linear inequality in two variables

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For each ordered pair (x, y) , determine whether it is a solution to the inequality $3x - 7y \geq 10$.

(x, y)	Is it a solution?	
	Yes	No
$(8, 0)$	☒	☐
$(8, 5)$	☐	☐
$(-6, -4)$	☒	☐
$(-5, 2)$	☐	☐



Handwritten work for the inequality $3x - 7y \geq 10$:

For $(8, 0)$:
 $x = 8, y = 0$
 $3(8) - 7(0) \geq 10$
 $24 \geq 10$ true
 Yes

For $(-6, -4)$:
 $x = -6, y = -4$
 $3(-6) - 7(-4) \geq 10$
 $-18 + 28 \geq 10$
 $10 \geq 10$ true
 Yes