* Ch. 5.6

Algebra 1 6.6

Solve systems of linear inequalities by graphing

Apply systems of linear inequalities

linear inequality*

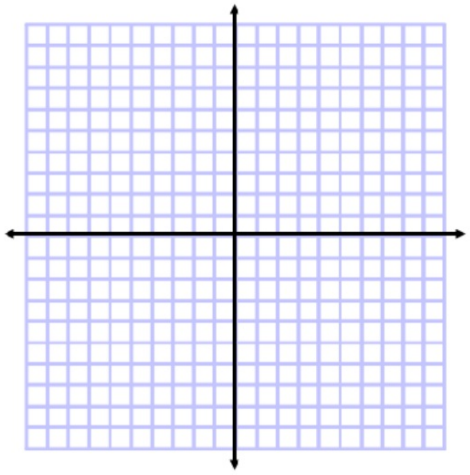
system

boundary

open $<$ $>$ - - -

closed $\leq$ $\geq$ ——————

Whiteboards



26. CCSS **MODELING** Josefina works between 10 and 30 hours per week at a pizzeria. She earns $6.50 an hour, but can earn tips when she delivers pizzas.

a. Write a system of inequalities to represent the dollars d she could earn for working h hours in a week.

b. Graph this system.

c. If Josefina received $17.50 in tips and earned a total of $180 for the week, how many hours did she work?

$h = 25$

$h \geq 10$

$h \leq 30$

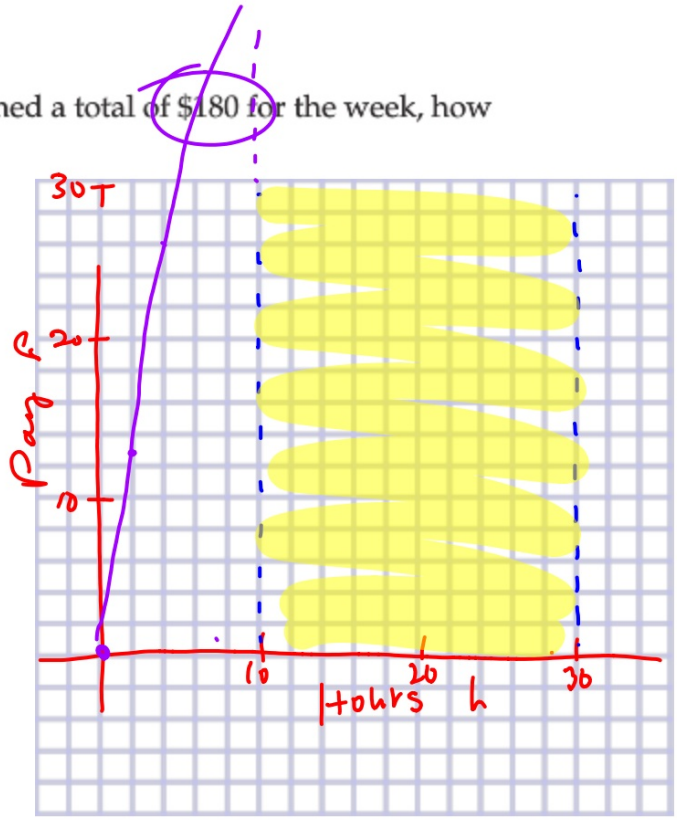
$p = 6.50h + 0$

$\frac{6.50}{1} \quad \frac{13}{2}$

$180 = tips + pay$

$= 17.50$

$162.50 = 6.50h$



25. ICE RINKS Ice resurfacers are used for rinks of at least 1000 square feet and up to 17,000 square feet. The price ranges from as little as $10,000 to as much as $150,000.

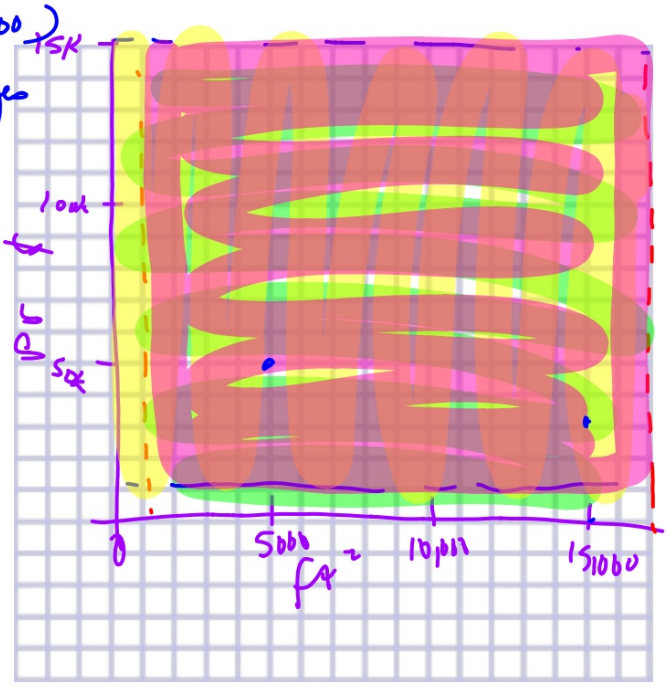
a. Define the variables, and write a system of inequalities to represent this situation. Then graph the system.

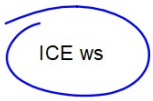
b. Name one possible solution. (5000, 50,000)

c. Is (15,000, 30,000) a solution? Explain. yes

f: 1000 — 17000

P: 10,000 — 150,000




ICE ws