# 2.8 Graphing Linear and Absolute Value Inequalities Honors Algebra 2 

1. Graph the following functions
a. $x+4 y>2$
b. $y-2 x>8$
c. $\quad 12 x-8 y \leq 24$



2. A recreation center offers various 30 -minute and 60 -minute art classes. The recreation director has allotted up to 20 hours per week for art classes.
a. Write an inequality to represent the number of classes that can be offered per week. Graph the inequality.

b. Can the recreation director schedule 25 of the 30 -minute classes and 15 of the 60-minute classes during a given week?
3. Manuel has $\$ 15$ to spend at the county fair. The fair costs $\$ 5$ for admission, $\$ 0.75$ for each ride ticket, and $\$ 0.25$ for each game ticket. Write an inequality, and draw a graph that represents the number of $r$ ride and $g$ game tickets that Manuel can buy.

4. Graph the following:
a. $y \geq|x|-4$
b. $y<|x-3|$


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c. $y \leq 2|x|+3$

d. $y \geq 3|x+1|$


