Name_____ Class_____ Date_____

3-3 Systems of Inequalities

Solve each system of inequalities by graphing.

8. $\begin{cases} y > x + 2 \\ y \leq -x + 1 \end{cases}$

9. $\begin{cases} y \leq x + 3 \\ y \geq x + 2 \end{cases}$

10. $\begin{cases} x + y < 5 \\ y < 3x - 2 \end{cases}$

14. $\begin{cases} 2x \geq y + 3 \\ x < 3 - 2y \end{cases}$

15. $\begin{cases} 3 < 2x - y \\ x - 3y \leq 4 \end{cases}$

16. $\begin{cases} 2x + y > 2 \\ x - y \geq 3 \end{cases}$

Name_____ Class _____ Date_____

3-3 Practice (continued)

Form K

Systems of Inequalities

17. Suppose you are buying two kinds of notebooks for school. A spiral notebook costs $2, and a three-ring notebook costs $5. You must have at least 6 notebooks. The cost of the notebooks can be no more than $20.

a. Write a system of inequalities to model the situation.

b. Graph and solve the system.

18. A camp counselor needs no more than 30 campers to sign up for two mountain hikes. The counselor needs at least 10 campers on the low trail and at least 5 campers on the high trail.

a. Write a system of inequalities to model the situation.

b. Graph and solve the system.

Solve each system of inequalities by graphing.

22. $\begin{cases} y \geq -2 \\ y \leq -|x+3| \end{cases}$

23. $\begin{cases} y < x+3 \\ y > |x-1| \end{cases}$

24. $\begin{cases} y > x \\ y < |x+2| \end{cases}$