Name _____ Class _____ Date _____

Practice 5-7

Mixed Exercises

Graph each equation.

1. $x + y = 3$ **2.** $x + 3y = -9$ **3.** $-2x + 3y = 6$ **4.** $5x - 4y = -20$

5. $3x + 4y = 12$ **6.** $7x + 3y = 21$ **7.** $3x - 5y = 15$ **8.** $2x - 3y = 4$

9. $x + 4y = 4$ **10.** $3x - 2y = -6$ **11.** $5x + 2y = 5$ **12.** $-7x + 2y = 14$

13. $3x + y = 3$ **14.** $-3x + 5y = 15$ **15.** $2x + y = 3$ **16.** $8x - 3y = 24$

Graph each equation using a graphing calculator. Make a sketch of the graph. Include Xmin, Xmax, Ymin, Ymax, and the *x*- and *y*-intercepts.

17. $6x + 5y = 90$ **18.** $4x + 7y = 84$ **19.** $9x + 5y = 180$ **20.** $3x + 8y = -120$

21. $7x - 10y = 140$ **22.** $-6x + 11y = 132$ **23.** $5x - 4y = -140$ **24.** $-11x + 3y = 165$

Write an equation for a line through the given point with the given slope using the $Ax + By = C$ form.

25. $(3, 1); m = 4$ **26.** $(5, 4); m = 2$ **27.** $(-3, 3); m = -2$ **28.** $(6, -2); m = 5$

29. $(2, -7); m = \frac{2}{3}$ **30.** $(9, 7); m = -4$ **31.** $(-1, 2); m = -\frac{4}{5}$ **32.** $(-5, 1); m = -\frac{1}{5}$

33. $(6, -7); m = \frac{5}{2}$ **34.** $(-4, -1); m = \frac{7}{3}$ **35.** $(-4, 2); m = -\frac{1}{3}$ **36.** $(-8, 10); m = -6$

37. The drama club sells 200 lb of fruit to raise money. They sell the fruit in 5-lb bags and 10-lb bags.

- **a.** Write an equation to find the number of each type of bag that they should sell.
- **b.** Graph your equation.
- **c.** Use your graph to find two different combinations of types of bags.

38. The student council is sponsoring a carnival to raise money. Tickets cost \$5 for adults and \$3 for students. They want to raise \$450.

- **a.** Write an equation to find the number of each type of ticket they should sell.
- **b.** Graph your equation.
- **c.** Use your graph to find two different combinations of tickets sold.

39. Anna goes to a store to buy \$70 worth of flour and sugar for her bakery. A bag of flour costs \$5 and a bag of sugar costs \$7.

- **a.** Write an equation to find the number of bags of each type Anna can buy.
- **b.** Graph your equation.