29. ⬦ **TAKS REASONING** How would you classify the system?

$$-12x + 16y = 10$$
$$3x + 4y = -6$$

(**A**) Consistent and independent   (**B**) Consistent and dependent

(**C**) Inconsistent   (**D**) None of these

30. ⬦ **TAKS REASONING** Write a system of two linear equations that has the given number of solutions.

    a. One solution   **b.** No solution   **c.** Infinitely many solutions

GRAPH AND CHECK **Graph the system and estimate the solution(s). Then check the solution(s) algebraically.**

31. $y = |x + 2|$
$y = x$

32. $y = |x - 1|$
$y = -x + 4$

33. $y = |x| - 2$
$y = 2$

34. **CHALLENGE** State the conditions on the constants a, b, c, and d for which the system below is (**a**) consistent and independent, (**b**) consistent and dependent, and (**c**) inconsistent.

$$y = ax + b$$
$$y = cx + d$$

PROBLEM SOLVING

35. **WORK SCHEDULE** You worked 14 hours last week and earned a total of $96 before taxes. Your job as a lifeguard pays $8 per hour, and your job as a cashier pays $6 per hour. How many hours did you work at each job?

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36. **LAW ENFORCEMENT** During one calendar year, a state trooper issued a total of 375 citations for warnings and speeding tickets. Of these, there were 37 more warnings than speeding tickets. How many warnings and how many speeding tickets were issued?

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37. ⬦ **TAKS REASONING** A gym offers two options for membership plans. Option A includes an initiation fee of $121 and costs $1 per day. Option B has no initiation fee but costs $12 per day. After how many days will the total costs of the gym membership plans be equal? How does your answer change if the daily cost of Option B increases? *Explain*.

38. ◆◆ **MULTIPLE REPRESENTATIONS** The price of refrigerator A is $600, and the price of refrigerator B is $1200. The cost of electricity needed to operate the refrigerators is $50 per year for refrigerator A and $40 per year for refrigerator B.

    a. Writing Equations Write an equation for the cost of owning refrigerator A and an equation for the cost of owning refrigerator B.

    b. Graphing Equations Graph the equations from part (a). After how many years are the total costs of owning the refrigerators equal?

    c. Checking Reasonableness Is your solution from part (b) reasonable in this situation? *Explain*.