45. TAKS REASONING You have two part-time jobs. You earn $\$ 6$ per hour running errands and $\$ 5$ per hour walking dogs. You can work a total of 10 hours this weekend and hope to earn at least $\$ 55$. Let $r$ be the number of hours you spend running errands.
a. Write an inequality that describes the situation. Your inequality should involve only one variable, $r$.
b. If you spend the same amount of time at each job, will you meet your goal? Explain.
c. Can you meet your goal by working all 10 hours at only one job? Explain.
46. TAKS REASONING Your school's service club is sponsoring a dance in the school gym to raise money for a local charity. The expenses will be $\$ 600$. The club members will sell tickets for $\$ 10$. They hope to raise enough money to cover the expenses and have enough left to donate $\$ 1000$ to the charity.
a. How many tickets must they sell to cover their expenses?
b. How many tickets must they sell to cover their expenses and meet their goal?
c. The school allows no more than 200 students in the gymnasium for a dance. Can the club members sell enough tickets to exceed their goal? What is the greatest possible amount by which they can exceed their goal? Explain your reasoning.
47. CHALLENGE You and your friend are reading the same series of science fiction books. You tell your friend, "I've read 3 times as many books as you have." Your friend replies, "You've read only 4 more books than I have." How many books have each of you read?
48. CHALLENGE Each of the long sides of a rectangle has a length of $x$ inches. Each of the other sides is 1 inch shorter than the long sides. The perimeter of the rectangle is 22 inches. Find the length and the width of the rectangle. Justify your answer.

## MIXED REVIEW for TAKS

## Review

 Lesson 1.3;TAKS Workbook

## Review

TAKS Preparation p. 622;

TAKS Workbook
49. TAKS PRACTICE You are buying several birds and a birdcage. The birdcage costs $\$ 25$ and the birds cost $\$ 8$ each. If you have $\$ 50$ altogether to spend on the birds and the birdcage, how many birds can you buy? TAKS Obj. 1
(A) 2
(B) 3
(C) 4
(D) 6
50. TAKS PRACTICE A rectangle has a perimeter of 40 inches and an area of 36 square inches. A similar rectangle has a perimeter of 20 inches. What is the area of the smaller rectangle? TAKS Obj. 8
(F) 9 in . ${ }^{2}$
(G) $18 \mathrm{in} .^{2}$
(H) $20 \mathrm{in} .{ }^{2}$
(J) 72 in. ${ }^{2}$

