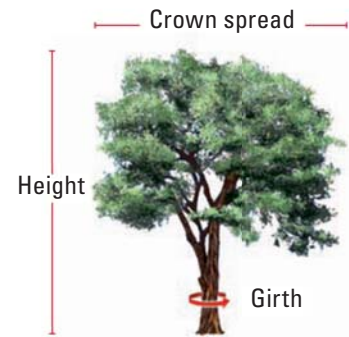


37. **TAKS REASONING** A national survey determines the champion tree in a species. The champion is the tree with the greatest score, based on the tree's girth, its height, and its crown spread as shown.

A tree's score is the sum of the girth in inches, the height in feet, and $\frac{1}{4}$ the crown spread in feet. The data for three champion trees are given. Note that the girth is given in feet.



Species	Girth (ft)	Height (ft)	Crown spread (ft)
Narrowleaf cottonwood	12	97	24
Green ash	21.5	95	95
Green buttonwood	14.5	51	68

- a. **Write** Write an expression for a tree's score.
 b. **Evaluate** Find the score for each tree in the table.
 c. **CHALLENGE** Let n be any number greater than 0. Which change would have the greatest effect on a tree's score, an increase of n feet in the girth, in the height, or in the crown spread? *Explain* your reasoning.



MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW

Lesson 1.1;
TAKS Workbook

38. **TAKS PRACTICE** The cost in dollars of renting a truck is given by $40d + 0.4m$ where d is the number of days for which the truck is rented and m is the number of miles driven. How much does it cost to rent the truck for 2 days and drive it 100 miles? **TAKS Obj. 4**

(A) \$80 (B) \$120 (C) \$440 (D) \$480

REVIEW

Skills Review
Handbook p. 916;
TAKS Workbook

39. **TAKS PRACTICE** In a recent election, 2 out of every 5 voters voted for candidate A, 15% voted for candidate B, and the rest voted for candidate C. What percent voted for candidate C? **TAKS Obj. 9**

(F) 25% (G) 40% (H) 45% (J) 55%

QUIZ for Lessons 1.1–1.3

Evaluate the expression.

1. $y + 10$ when $y = 43$ (p. 2) 2. $15 - b$ when $b = 9$ (p. 2) 3. t^2 when $t = 20$ (p. 2)
 4. $3n - 5$ when $n = 8$ (p. 8) 5. $2y^2 - 1$ when $y = 5$ (p. 8) 6. $\frac{3x - 6}{8}$ when $x = 8$ (p. 8)

Translate the verbal phrase into an expression. (p. 15)

7. 7 less than a number y 8. 5 more than a number t 9. Twice a number k
 10. **CAMPING** The rental cost for a campsite is \$25 plus \$2 per person. Write an expression for the total cost. Then find the total cost for 5 people. (p. 15)

