

34. **BOTANY** The guayule plant, which grows in the southwestern United States and in Mexico, is one of several plants that can be used as a source of rubber. In a large group of guayule plants, the heights of the plants are normally distributed with a mean of 12 inches and a standard deviation of 2 inches.
- What percent of the plants are taller than 16 inches?
 - What percent of the plants are at most 13 inches?
 - What percent of the plants are between 7 inches and 14 inches?
 - What percent of the plants are at least 3 inches taller than or shorter than the mean height?



Guayule plants

35. **TAKS REASONING** Lisa and Ann took different college entrance tests. The scores on the test that Lisa took are normally distributed with a mean of 20 points and a standard deviation of 4.2 points. The scores on the test that Ann took are normally distributed with a mean of 500 points and a standard deviation of 90 points. Lisa scored 30 on her test, and Ann scored 610 on her test.
- Calculate** Find the z -score for Lisa's test score.
 - Calculate** Find the z -score for Ann's test score.
 - Interpret** Which student scored better on her college entrance test? *Explain* your reasoning.
36. **CHALLENGE** According to a survey by the National Center for Health Statistics, the heights of adult men in the United States are normally distributed with a mean of 69 inches and a standard deviation of 2.75 inches.
- If you randomly choose 3 adult men, what is the probability that all of them are more than 6 feet tall?
 - What is the probability that 5 randomly selected men all have heights between 65 inches and 75 inches?



MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW

Lesson 1.2;
TAKS Workbook

REVIEW

Lesson 10.4;
TAKS Workbook

37. **TAKS PRACTICE** What is the value of $5x^2 - 2x + 3$ when $x = -3$? **TAKS Obj. 2**

(A) -48 (B) -36 (C) 41 (D) 54

38. **TAKS PRACTICE** The table shows the regions of the United States in which the Presidents in office from 1853 through 2005 were born. What is the probability that a President chosen at random was born in the South or was a Republican? **TAKS Obj. 9**

	Midwest	Northeast	South	West
Democrat	2	6	4	0
Republican	9	5	3	1

(F) $\frac{1}{10}$ (G) $\frac{11}{15}$ (H) $\frac{4}{5}$ (J) $\frac{5}{6}$