14. CAR ENGINES The table shows the relationship between a car's engine speed (in revolutions per minute) and the power (in horsepower) that the engine produces. Use a graphing calculator to find a model for the data. What engine speed maximizes this car's engine power?

Engine speed (rpm)	1000	2000	3000	4000	5000	6000
Engine power (hp)	16	35	55	72	77	68

15. CHALLENGE As a chair manufacturer produces more chairs, the production cost per chair decreases. The table shows the number x of chairs produced and the production cost y (in dollars) per chair. Model the data with a function whose graph has a horizontal asympote. What does the asymptote represent in this situation?

x	50	300	800	2000	3000	4000
y	260	180	95	45	35	30

MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW
Lesson 2.4;
TAKS Workbook

16. TAKS PRACTICE A sporting goods store has a 20%-off sale on all golf equipment. Which equation describes the relationship between the original price, x, of a piece of golf equipment and the sale price, y? *TAKS Obj. 1*

Ⓐ $x = 0.2y$ Ⓑ $x = 0.8y$ Ⓒ $y = 0.2x$ Ⓓ $y = 0.8x$

REVIEW
TAKS Preparation p. 608;
TAKS Workbook

17. TAKS PRACTICE What is the approximate volume of the volleyball? *TAKS Obj. 8*

Ⓕ 77 in.^{3} Ⓖ 232 in.^{3}

Ⓗ 250 in.^{3} Ⓙ 333 in.^{3}

QUIZ *for Lessons 11.3–11.5*

A normal distribution has a mean of 47 and a standard deviation of 6. Find the probability that a randomly selected x-value is in the given interval. *(p. 757)*

1. Between 35 and 65 **2.** At least 41 **3.** At most 29

Find the sample size required to achieve the given margin of error. Round your answer to the nearest whole number. *(p. 766)*

4. ±3% **5.** ±7% **6.** ±4.5% **7.** ±0.8%

8. SPORTS The table shows the winning times y (in seconds) for various men's races of length x (in meters) at the 2004 Summer Olympics. Use a graphing calculator to find a model for the data. *(p. 775)*

x	100	200	400	800	1500	5000	10,000
y	9.85	19.79	44.00	104.45	214.18	794.39	1625.10

EXTRA PRACTICE for Lesson 11.5, p. 1020 ONLINE QUIZ at classzone.com