

27. **TAKS REASONING** Consider a pairing of the digits 2 through 9 on a telephone keypad with the associated letters.
- Make a table showing the pairing with the digits as inputs and the letters as outputs. Is the pairing a function? *Explain.*
 - Make a table showing the pairing with the letters as inputs and the digits as outputs. Is the pairing a function? *Explain.*



28. **MULTI-STEP PROBLEM** The table shows the fuel efficiency of four compact cars from one manufacturer for model year 2004.

City fuel efficiency (mi/gal), c	24	26	27	28
Highway fuel efficiency (mi/gal), h	32	34	35	36

- Write a Rule** Use the table to write a rule for the cars' highway fuel efficiency as a function of their city fuel efficiency.
 - Predict** Another of the manufacturer's compact cars has a city fuel efficiency of 30 miles per gallon. Predict the highway fuel efficiency.
 - Calculate** A study found that if gas costs \$2 per gallon, you can use the expression $\frac{11,550}{c} + \frac{9450}{h}$ to estimate a car's annual fuel cost (in dollars) for a typical driver. Evaluate the expression for the car in part (b).
29. **CHALLENGE** Each week you spend a total of 5 hours exercising. You swim part of the time and bike the rest.



300 calories per hour



440 calories per hour

- Write a rule for the total number of calories you burn for the whole 5 hours as a function of the time you spend swimming.
- One week you spend half the time swimming. How many calories do you burn during the whole 5 hours?



MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW

Lesson 1.5;
TAKS Workbook

30. **TAKS PRACTICE** A train averages a speed of 75 miles per hour on a 300 mile trip. The train travels within a single time zone and leaves at 1 P.M. What time will the train arrive at its destination? **TAKS Obj. 10**

(A) 3:00 P.M. (B) 3:30 P.M. (C) 4 P.M. (D) 5 P.M.

REVIEW

Lesson 1.3;
TAKS Workbook

31. **TAKS PRACTICE** You pay a \$5 processing fee to order concert tickets no matter how many tickets you order. Each ticket costs \$18. Which equation best represents c , the total cost of ordering n tickets? **TAKS Obj. 4**

(F) $c = 18n + 5$ (G) $18 = cn + 5$ (H) $c = 18(n + 5)$ (J) $18 = c(n + 5)$