50. **TAKS REASONING** The Harris Dam in Maine releases water into the Kennebec River. From 10:00 A.M. to 1:00 P.M. during each day of whitewater rafting season, water is released at a greater rate than usual.

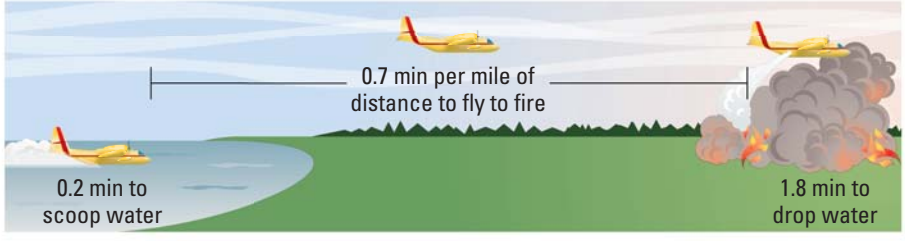
Time interval	Release rate (gallons per hour)
12:00 A.M. to 10:00 A.M.	8.1 million
10:00 A.M. to 1:00 P.M.	130 million

a. On a day during rafting season, how much water is released by 10:00 A.M.?

b. Write an equation that gives, for a day during rafting season, the total amount of water (in gallons) released as a function of the number of hours since 10:00 A.M.

c. What is the domain of the function from part (b)? *Explain.*

51. **FIREFIGHTING** The diagram shows the time a firefighting aircraft takes to scoop water from a lake, fly to a fire, and drop the water on the fire.



a. **Model** Write an equation that gives the total time (in minutes) that the aircraft takes to scoop, fly, and drop as a function of the distance (in miles) flown from the lake to the fire.

b. **Predict** Find the time the aircraft takes to scoop, fly, and drop if it travels 20 miles from the lake to the fire.

52. **CHALLENGE** The elevation at which a baseball game is played affects the distance a ball travels when hit. For every increase of 1000 feet in elevation, the ball travels about 7 feet farther. Suppose a baseball travels 400 feet when hit in a ball park at sea level.

a. **Model** Write an equation that gives the distance (in feet) the baseball travels as a function of the elevation of the ball park in which it is hit.

b. **Justify** *Justify* the equation from part (a) using unit analysis.

c. **Predict** If the ball were hit in exactly the same way at a park with an elevation of 3500 feet, how far would it travel?

MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW Lesson 1.6; TAKS Workbook

53. **TAKS PRACTICE** Which function includes the data set $\{(-4, 6), (-2, 2) (0, -2)\}$? *TAKS Obj. 3*

Ⓐ $y = -2x$ Ⓑ $y = -2x - 2$ Ⓒ $y = -\frac{x}{2}$ Ⓓ $y = 2x - 2$

REVIEW TAKS Preparation p. 480; TAKS Workbook

54. **TAKS PRACTICE** If the length of a rectangle doubles and its width triples, by what factor does the rectangle's area increase? *TAKS Obj. 8*

Ⓕ 2.5 Ⓖ 5 Ⓗ 6 Ⓙ 8