ACTIVITY #1

Name: _____

Fearless Felix's Fast Fall

For use with pages 12–13 in the September 6, 2010, issue of Scholastic *MATH* Magazine.

1 In this article, we learned that a rate compares two measurements. And for speed, those two measures are distance and time. You've probably heard of speed measured in "miles per hour." In miles per hour, which of those words represents…

a. distance?

b. time?

2 Simple enough so far, right? So next we learn the formula for speed:

RATE = DISTANCE ÷ TIME

Let's say we're in a car, and drive 180 miles in 3 hours. We want to find our rate in miles per hour.

a. First, let's use the formula, and the numbers we already know, to write an equation.

RATE = ☐ ÷ ☐

(distance, in miles) (time, in hours)

b. Now solve the division problem. What is the rate in miles per hour?

3 For a skydiver like "Fearless" Felix Baumgartner, instead of measuring his speed in miles per hour, scientists use "feet per second." They think that before he opens his parachute, he will fall about 95,100 feet in 300 seconds.

a. Again, let's use the formula, and the numbers we already know, to write an equation.

RATE = ☐ ÷ ☐

(distance, in feet) (time, in seconds)

b. Now solve the division problem. What is the rate in feet per second?

4 After the parachute opens, it will take about 900 seconds to fall the final 5,400 feet to the ground. Follow the steps from the previous problems to find the rate in feet per second.

5 At his fastest, about 35 seconds into his fall, Fearless Felix will be going 1,012 feet per second! (A new freefall world record!) About what does that equal in miles per hour? Well, if he was traveling at that rate for 5 hours, he'd go about 3,450 miles. What is the rate in miles per hour?