Lesson 3 Problem-Solving Practice

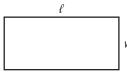
Algebra: Variables and Expressions

TRAVEL For Exercises 1 and 2, use the table that shows the distances between several cities.

Mileage Chart

	Greenville	Clinton	Franklin	Springfield
Clinton	124 miles		197 miles	533 miles
Franklin	279 miles	197 miles		395 miles
Springfield	527 miles	533 miles	395 miles	

- **1.** To find the speed of a car, use the expression $d \div t$, where d represents the distance and t represents time. Find the speed of a car that travels from Clinton to Greenville in 2 hours.
- **2.** To find the time it will take for a train to travel from Springfield to Franklin, use the expression $\frac{d}{s}$, where d represents distance and s represents speed. Find the time if the train travels at a speed of 79 miles per hour.
- **3. PERIMETER** The perimeter of a rectangle can be found using the expression $2\ell + 2w$, where ℓ represents the length and w represents the width. Find the perimeter if $\ell = 6$ units and w = 3 units.



- **4. PERIMETER** Another expression for perimeter is $2(\ell + w)$. Find the perimeter of the rectangle in Exercise 3 using this expression. How do the answers compare? Explain how you used order of operations using this expression.
- **5. SHOPPING** The expression 3j + 10 shows the total cost with shipping for 3 pairs of jeans. Find the total cost if each pair of jeans costs \$25.
- **6. SHOPPING** The expression 15p + 12r shows the total cost of buying p printed shirts and r plain shirts. Find the total cost if you buy two printed shirts and three plain shirts.