Unit 2 Test Review: Rational Number and Percent Operations

1. The length of a rectangular park is mile. If the area of the park is square mile, what is the width of the park? (Hint: *A = bh*)
2. a. Given the expression below, **including the final factor (*A*),** what will the sign of the product be? Justify your answer.

b. Give a value for *A* that would result in a positive value for the expression.

c. Give a value for *A* that would result in a negative value for the expression.

1. Evaluate the expression below using the properties of operations.
2. a.Tom’s truck used 15 gallons of gas to travel 300 miles. How many miles did his truck travel per gallon of gas?

b. It cost Tom $44.88 to purchase the gas. How much did he pay for each gallon?

1. Which expression is modeled by the diagram shown below? **Show work to support your answer**.

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| --- |
| A |
| B |
| C |
| D |

1. Of the 40 students on the Milwee Middle School soccer team, 10% also play on a travel team. How many of the students on the middle school team also play on a travel team?
2. a. If an item is discounted 20%, the sale price is what percent of the original price?

b. If the original price of the item is $400, what is the dollar amount of the discount?

. c. How much is the sale price?

1. A sweater is regularly $32. It is 25%off the original price this week. Use a percent proportion to solve the following.
   1. Would the amount the shopper saved be considered the part, whole, or percent?
   2. How much would a shopper save by buying the sweater this week? Show two methods for finding your answer.
2. The cost of an Orlando Magic t-shirt is $24.00. The local sporting goods store sells it for $30.00. Find the percent increase.
3. A $300 savings bond earns simple interest at the rate of 2% each year. The interest is paid at the end of every month. How much interest will the bond have earned after three months?