Extension Activity: The Percentage Allocation Equation Answer Key

Name: _____ **Date:** _____

Part One Directions: Solve the equation $\boldsymbol{I\left(\frac{p}{100}\right) = A_B}$ for the variable where $\boldsymbol{I}$ is monthly income, $\boldsymbol{p}$ is percentage of income allocated to an expense, and $\boldsymbol{A_B}$ is the total amount budgeted to the expense.

1. $\$1{,}257.00\left(\frac{p}{100}\right) = \$377.10$
   A_B

   $p = 30\%$

2. $I\left(\frac{15}{100}\right) = \$390.00$

   $I = \$2{,}600.00$

3. $\$5{,}250.00\left(\frac{16}{100}\right) =$

   $A_B = \$840.00$

4. $I\left(\frac{25}{100}\right) = \$853.00$

   $I = \$3{,}412.00$

PART TWO DIRECTIONS: Read the passage and use the equation $\boldsymbol{I\left(\frac{p}{100}\right) = A_B}$ to solve for the missing information.

1. Jessica is moving across the country to become a robotics engineer in San Francisco, California. Her monthly income will be $7,250.00, and her apartment rent will be $2,900.00. What percentage of her monthly budget will Jessica allocate to housing?

   p = 40%

2. Emanuel would like to spend no more than 7% of his monthly income on groceries each month. If Emanuel earns $2,484.00 per month, how much is the most he should budget monthly for groceries?

$A_B = \$173.88$