

## Writing and Solving Equations from Word Problems Guided Notes

A. A new one-year membership at RecPlex costs \$160. A registration fee of \$28 is paid up front, and the rest is paid monthly. How much do new members pay each month?

1. Define the variable (What do we not know?):
2. Determine the constant (if there is one):
3. What is the rate (look for “each”, “per”, something that will repeat):
4. Write the equation and solve:

B. Juan’s cell phone company charges \$35 a month for phone service plus \$0.50 for each text message. How many text messages does Juan send in a month if his bill was \$52?

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|-------------------------|----------------------------------|
| 1. Define the variable: | 2. Determine the constant:       |
| 3. What is the rate:    | 4. Write the equation and solve: |

C. Friendship’s soccer team purchased uniforms and equipment for a total cost of \$912. The equipment cost \$612, and the uniforms cost \$25 each. How many uniforms did the school purchase?

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|-------------------------|----------------------------------|
| 1. Define the variable: | 2. Determine the constant:       |
| 3. What is the rate:    | 4. Write the equation and solve: |

D. Long's Coffee Shop sells a refill mug for \$8.95. Each refill costs \$1.50. Last month, Jalissa spent \$26.95 on a mug and refills. How many refills did she buy?

Write the equation and solve:

E. The bill for the repair of a computer was \$179. The cost for parts was \$44, and the labor charge was \$45 per hour. How many hours did it take to repair the computer?

Write the equation and solve:

F. The Elk Grove Bowling Alley offers a special. Each game costs \$2.50, and shoe rental \$2. You spend \$14.50 total. How many games did you bowl?

Write the equation and solve:

G. The sum of the measures of the angles of all triangles is  $180^\circ$ . If one angle of the triangle measures  $45^\circ$ , and the other two angles are equal, what is the measure of each of the other two angles?

Write the equation and solve:

H. Sandra scores 4 baskets in his first basketball game. She then scored the same number of baskets in each of her next 3 games. If Sandra made 19 baskets total, how many baskets did she score in each of the three games?

Write the equation and solve:

I. You and three friends go to the town carnival. You have a coupon for \$20 off that will save your group money! If the total bill to get into the carnival was \$100, how much does one regular price ticket cost?

Write the equation and solve: