

Solving One & Two-Step Equations

Solve each equation.

Example 1: $-6.1r + (-4) = 19.18$	Example 2: $4(w + 0.3) = 66.48$
Example 3: $\frac{3.6+p}{4} = -2.61$	Example 4: $\frac{6}{7}m - 3 = -5\frac{2}{5}$
Example 5: $-2\frac{2}{9}k - 4\frac{1}{3} = \frac{1}{9}$	Example 6: $\frac{2}{5}(p - \frac{5}{6}) = -\frac{2}{7}$

Solving One and Two-Step Inequalities

Solve and graph each inequality.

Example 1: $2.3n + (-6) \geq -8.53$	Example 2: $-2.6 > -2y + 1.4$
Example 3: $\frac{1}{2}t + (-4) > -3\frac{7}{12}$	Example 4: $-\frac{3}{5}p + (-2) \leq -2\frac{2}{15}$

Writing Equations and Inequalities from Word Problems

For each word problem, clearly define your variable and set-up an equation/inequality. Solve.

1. Jordan plans to purchase one movie ticket for \$8.50, and wants to purchase several boxes of candy for \$3.25 each. Using an inequality, determine the greatest number of boxes of candy he can buy with \$21.50.

Variable: _____

Equ./Inequal: _____

Final Answers: _____

2. Wanda earns an hourly wage plus commission at her retail job. Last week, she worked 32 hours and earned a \$65.85 bonus. If her total paycheck, including the bonus, was \$352.25 how much does Wanda make each hour?

Variable: _____

Equ./Inequal: _____

Final Answers: _____

3. The price of a DVD player today is \$56.60. This is eight dollars less than $\frac{2}{3}$ the price of the same DVD player in 2005. What was the cost of the DVD player in 2005?

Variable: _____

Equ./Inequal: _____

Final Answer: _____

4. As a sales person, Harvey earns \$60 per day plus $\frac{1}{4}$ of his customer sales. If Harvey wants to earn a total of at least \$147.50 in order to buy a new gaming system, how much must his customer sales be?

Variable: _____

Equ./Inequal: _____

Final Answer: _____

5. Which equation below could be used to solve the following problem?

Karlie has a collection of quarters, dimes, and nickels that equal \$2.70. If she has 7 quarters and 7 nickels, how many dimes does she have?

A. $.10d + 7(.25) + 7(.5) = 2.70$

B. $.10d + 7(.25 + .05) = 2.70$

C. $10d + 7(25 + 5) = 2.70$

D. $.10d + 7(.25) + .05 = 2.70$

6. Which equation below could be used to solve the following problem?

The length of a rectangle is $3\frac{2}{5}$ inches longer than the rectangle's width. If the perimeter of a rectangle is $9\frac{3}{10}$ inches, what is the width of the rectangle?

A. $(3\frac{2}{5} + w) = 9\frac{3}{10}$

B. $2(3\frac{2}{5} + w) = 9\frac{3}{10}$

C. $(3\frac{2}{5} + w) + w = 9\frac{3}{10}$

D. $2(3\frac{2}{5} + w) + 2w = 9\frac{3}{10}$