

Practice Worksheet

Content Standard: Solve Equations & Inequalities

Student Learning Expectations: Solve equations involving: integers & fractions, ratios & proportions, simple absolute value, real-world applications and open-ended questions.

1. Peter reset his car's trip odometer to zero just before he drove from Hot Springs to Little Rock. The trip took 1 hour and 15 minutes. When he arrived, his trip odometer read 55 miles. What was his average speed?

2. There are 500 students in Kevin's school. 24% of the students like hamburgers. Of these, 75% like French fries. How many students like hamburgers and French fries?

3. If $x = 3$ in the expression $5x + 2y = 7$, what is the value of y ?

4. Michelle is taking a trip to Japan. She wants to use Japanese yen to pay for souvenirs. The currency rate is $\$1.00 = 120$ yen. The bank charges \$20 as a service fee to exchange currency. Michelle spent \$250 to convert her dollars to yen. How many yen did she receive?

5. Nestor works at a car dealership after school. His job is to wash cars for which he gets \$25 a day. He can make extra money if he polishes the cars. He gets \$2.50 for every car he polishes. Let M be the total amount he can earn in one day and C be the number of cars he polishes.
 - a. Write an equation to show how much Nestor makes each day.

 - b. Using your equation from part (a), how many cars does Nestor polish if he earns \$85 in one day? Show the details of all your work even if you use a calculator or mental math.

 - c. Nestor's manager wants to change his compensation plan to \$20/day plus \$3.00 per car he polishes. Write an equation to show how much Nestor will make under the new plan.

 - d. How many cars would Nestor have to polish to make at least the same amount as the original plan? Show the details of all your work even if you use a calculator or mental math.
