

Palomar College Math Placement Test Study Guide

Beginning Algebra

Topic 10: More Word Problems

1. Let n be the smallest of three consecutive integers. Translate into an equation: The sum of the three consecutive integers is 51.
2. The length of a rectangle is 8 more than twice the width. The perimeter is 106 cm. Find the length and width of the rectangle.
3. The third angle of a triangle measures twice the sum of the first and second angles. The first angle measures 23° . Find the measure of the second and third angles.
4. On a math test, Jordan answered 24 questions correctly. This number is exactly $66\frac{2}{3}\%$ of the total number of questions on the test. How many questions were on the math test?
5. A computer is on sale for \$559, which is a 14% discount off the regular price. Find the regular price.
6. Max invested \$14,000 into two accounts. One account pays 7% annual simple interest and the other pays 9%. The total interest for the year was \$1170. How much did Max invest in each account?
7. Cashews that cost \$6.59 per pound were mixed with x pounds of almonds that cost \$4.79 per pound to make 10 pounds of a mixture that cost \$5.39 per pound. Write an equation that could be used to find x , the number of pounds of almonds in the mixture.
8. How much 40% antifreeze solution must be added to 5 L of 90% antifreeze solution to make a solution that is 60% antifreeze?
9. An airplane flew for 5 hours at a speed of 455 miles per hour and then for 4 more hours at a speed of x miles per hour. The average speed of the airplane was 495 miles per hour. Write an equation that could be used to find x .

Answers:

1. $n + n + 1 + n + 2 = 51$
2. The width is 15 cm. The length is 38 cm.
3. The second angle is 37° and the third angle is 120° .
4. There were 36 questions on the test.
5. The regular price is \$650.
6. Max invested \$4500 in the account paying 7% interest and \$9500 in the account paying 9% interest.
7. $4.79x + 6.59(10 - x) = 5.39(10)$
8. 7.5 liters of 40% antifreeze solution must be added.
9. $5(455) + 4x = 9(495)$