

Math 1303 - Math in the Liberal Arts

Homework #6 - 2008.02.11

Due Date - 2008.02.18

In the following exercises, let x represent the number. Use the given conditions to write an equation. Solve the equation and find the number.

1. The sum of five and three times a number is 29.
2. A number increased by 12 is four times the number.
3. The quotient of three times a number and five, decreased by four is 34.
4. Nine times a number is 30 more than three times that number.
5. Seven subtracted from five times a number is 123.

Solve the following word problems.

6. In 2001, the most populous countries were China and India. In that year, China's population exceeded India's by 260 million. Combined, the two countries had a population of 2310 million. Determine the 2001 population for China and India.
7. A repair bill on a yacht came to \$1603, including \$532 for parts and the remainder for labor. If the cost of labor is \$63 per hour, how many hours of labor did it take to repair the yacht?
8. The bus fair in a city is \$1.25. People who use the bus have the option of purchasing a monthly coupon book for \$21.00. With the coupon book, the fare is reduced to \$0.50. Determine the number of times in a month the bus must be used so that the total monthly cost without the coupon book is the same as the total monthly cost with the coupon book.
9. Suppose that you have agreed to be paid 8 cents for every problem solved correctly out of a set of 26 problems. However, to spice things up, suppose that you have also agreed to be fined 5 cents for every problem done incorrectly. If at the end of 26 problems you have broken even, how many problems did you solve correctly?