

Name:

Date:

Hour:

Algebra 1
Application Problems WS #2

Write and solve an algebraic equation for each of these problems.

1. Alex belongs to a music club. He pays \$19.95 for a student discount card which allows him to buy CDs for \$3.95 each. After one year, Alex has spent \$63.40. How many CDs did Alex buy?

2. A certain painting company charges \$250 base plus \$16 per hour. Another painting company charges \$210 base plus \$18 per hour. How long is a job for which the two companies will charge the same amount?

3. One long-distance phone company charges 36 cents plus 3 cents per minute for a call. Another long-distance company charges 6 cents per minute for a call. How long is a call that costs the same amount, no matter which company is used? What is the cost of that call?

4. Alice and Ben's ages are consecutive whole numbers. The sum of their ages is 53. What is the age of each person?

5. Carol, Dan and Edna's ages are consecutive whole numbers. The sum of their ages is 27. What is the age of each person?

6. The sum of the measures of two angles is 180° . One angle measures $3x$ and the other angle measures $2x - 25$. Find the value of x .
7. Aaron needs to take out a loan to purchase a motorcycle. At one bank, he would pay \$2500 initially and then \$150 each month for the loan. At another bank, he would pay \$3000 initially and \$125 each month. After how many months will the two loan payments be the same?
8. A taxicab company charges \$2.10 plus \$0.80 per mile. Carmen paid a fare of \$11.70. Write and solve an equation to find the number of miles she traveled.
9. Three consecutive integers add to 183. Write and solve an equation to find the three numbers.
10. Tina and Bob's ages are consecutive numbers. The sum of their ages is 97. What are Tina and Bob's ages?