

Verbal Problems Involving Inequalities

Solve each problem algebraically.

1. Betty and Alice were collecting money in a fund-raising campaign. At present they have collected less than \$15. Alice said she had collected twice as much as Betty. How much had Betty collected?
2. A trip will be arranged for a minimum of 10 pupils in a group and a maximum of 30 pupils in a group. How many groups might have to be scheduled when 65 pupils apply?
3. There are 461 students and 20 teachers taking buses on a trip to a museum. Each bus can seat a maximum of 52. What is the *least* number of buses needed for the trip?
4. Roger is planning a pizza party with 43 guests. Each pie has 8 slices and he plans to serve each guest 2 slices. If p represents the number of pies, how many pies will Roger need to buy?
5. Thelma and Laura start a lawn-mowing business and buy a lawnmower for \$225. They plan to charge \$15 to mow one lawn. What is the *minimum* number of lawns they need to mow if they wish to earn a profit of *at least* \$750?
6. A doughnut shop charges \$0.70 for each doughnut and \$0.30 for a carryout box. Shirley has \$5.00 to spend. At most, how many doughnuts can she buy if she also wants them in one carryout box?
7. Fred bought 3 shirts, each at the same price, and received less than \$2.00 change from a \$20.00 bill. What is the minimum cost of one shirt?
8. Joan needed \$14 to buy some records. Her father agreed to pay her \$3 an hour for gardening in addition to her \$2 weekly allowance for helping around the house. What is the minimum number of hours Joan must work at gardening to earn \$14 this week?
9. Fred bought 3 shirts, each at the same price, and received less than \$2.00 change from a \$20.00 bill. What is the minimum cost of one shirt?
10. Two consecutive even numbers are such that their sum is greater than 98 decreased by twice the larger. Find the smallest possible values for the integers.