Practice B

For use with the lesson "Write Equations and Inequalities"

Write an equation or an inequality.

1. The difference of a number c and 17 is more than 33.

2. The product of 3 and a number x is at most 21.

3. The sum of 14 and twice a number y is equal to 78.

4. The difference of 22 and the quotient of a number m and 4 is 54.

5. The sum of 7 and three times a number b is at least 12.

Check whether the given number is a solution of the equation or inequality.

6. $6x + 7 = 25$; 3

7. $22 - 5c = 8$; 3

8. $\frac{b}{4} - 7 = 1$; 36

9. $7a + 4 \geq 20$; 2.7

10. $4y - 3 > 12$; 4

11. $\frac{m}{3} + 14 < 33$; 9

Solve the equation using mental math.

12. $x + 9 = 17$

13. $y - 5 = 12$

14. $8w = 48$

15. $\frac{m}{4} = 16$

16. $2x - 1 = 15$

17. $3x + 2 = 20$

18. **Computers** You are buying a new printer and a new scanner for your computer, and you cannot spend over $150. The printer you want costs $80. Write an inequality that describes the most that you can spend on the scanner and still stay within your budget. If you buy a scanner that costs $75, will you remain within your budget?

19. **Go-Carts** You and three of your friends are going to race go-carts. The last time you went, you had a coupon for $3 off each admission and paid $48 for the 4 admissions. What was the total price without the coupon? You pay the regular price this time and share it equally. How much does each person pay?

20. **Bracelets** You are making beaded bracelets for your friends. You want to use 30 beads for each bracelet and want to use no more than 145 beads. Write an inequality that models this situation. Can you make 4 bracelets?

21. **Staircase** When building a staircase, you need to be concerned with the height of the riser and the depth of the tread so that people can go up and down the stairs comfortably. One rule of thumb used to determine proper riser height and tread depth is that the sum of the tread depth (in inches) and twice the riser height (in inches) should equal 26 inches. Write an equation that models this situation. The riser height of a set of steps is 5 inches. What should the depth be?