Algebra: Write and Solve Equations

Solve using inverse operations.

1. \( z + 24 = 32 \)  
2. \( 6m = 48 \)  
3. \( d - 37 = 23 \)

4. \( k \div 5 = 22 \)  
5. \( g - 72 = 15 \)  
6. \( f + 267 = 645 \)

7. \( a \cdot 38 = 570 \)  
8. \( m + 623 = 814 \)  
9. \( b - 184 = 597 \)

10. \( 936 \div 72 = u \)  
11. \( 180 = q - 34 \)  
12. \( 81 + n = 278 \)

13. \( 64 \cdot z = 1,600 \)  
14. \( s \div 56 = 48 \)  
15. \( t - 18 = 43 \)

Use words to describe each equation.

16. \( 42 + a = 65 \)  
17. \( f - 25 = 52 \)

18. \( 12 \cdot h = 72 \)  
19. \( k \div 56 = 14 \)

In Problems 20–21, write and solve an equation for each problem.

20. Dan sold 156 tickets in the morning. By the end of the day he had sold 432 tickets. How many tickets did he sell in the afternoon?

21. Alicia gave her friend 6 stamps. She then had 28 left. How many stamps did she have to begin with?

Test Prep

22. Larry had 48 stamps. He divided them evenly onto pages. They covered 6 pages in all. How many stamps did he place on each page? Show the equation you used to solve the problem.

23. Cassie bought 3 tickets to a play. She paid $36 in all. How much did each ticket cost? Choose the equation that describes the situation.

A \( 3 \cdot 36 = n \)  
B \( n \div 36 = 3 \)  
C \( 36 n = 3 \)  
D \( 3 n = 36 \)