

Solve each equation if  $x \in \{0, 1, 2, 3, 4, 5\}$ .

1.  $x + 3 = 7$

2.  $5 + x = 9$

3.  $x - 3 = 2$

4.  $x - 1 = 3$

5.  $6 - x = 1$

6.  $5 - x = 2$

7.  $x + 3 = 3$

8.  $x + 2 = 5$

9.  $2x = 8$

10.  $3x = 12$

11.  $4x = 0$

12.  $x \div 2 = 1$

13.  $\frac{1}{2}x = 1$

14.  $x \cdot x = 16$

15.  $x(5 - x) = 6$

Translate each phrase into a variable expression. Use  $n$  for the variable.

16. Five more than a number

17. The product of 7 and a number

18. A number divided by 4

19. Seven less than a number

20. The sum of 3 and a number

21. A number decreased by 8

22. A quotient of a number and 3.

23. The difference between a number and 6.

24. Nine times a number

25. The difference between 9 and a number.

26. Four more than half a number.

27. Two less than 4 times a number.

28. Four more than three times a number

29. Nine increased by twice a number.

30. Eight times the sum of a number and 2.

31. Seven times the difference of a number and 5

**Complete each statement with a variable expression.**

32. Lisa is 2 cm taller than Fred. If Fred's height is  $f$  cm, then Lisa's height is   ? cm.
33. Annie is 7 inches shorter than Rick. If Rick's height is  $r$  in., then Annie's height is   ? in.
34. Shawn has \$6 more than Maria. If Maria has  $m$  dollars, then Shawn has   ? dollars.
35. Barb has twice as much money as Carlos. If Carlos has  $c$  dollars, then Barb has   ? dollars.

**Complete each statement with a variable expression.**

36. The sum of two numbers is 9. If one number is  $n$ , then the other number is     .
37. The sum of two numbers is 12. If one number is  $x$ , then the other number is     .
38. The product of two numbers is 15. If one number is  $y$ , then the other number is     .
39. The product of two numbers is 20. If one number is  $w$ , then the other number is     .