Write each number in scientific notation:

1. 567,000

2. 0.0596

3. 453.5

4. 0.000228

Write each number in standard form:

5. 9.5×10^{-6}

6. 6.43×10^3

7. 3.07×10^0

8. 4.875×10^{-1}

Evaluate and write answer in scientific notation:

9. $\dfrac{4.75 \times 10^{-3}}{2.5 \times 10^5}$

10. $(5.6 \times 10^7)(9.8 \times 10^3)$

11. $(6.6 \times 10^{-5})(9.4 \times 10^{-3})$

12. $\dfrac{5.46 \times 10^2}{6 \times 10^4}$

Solve each equation for the variable indicated:

13. $v = s + at \ \ for \ t$

14. $T = kPV \ \ for \ P$

15. $w = 3m - 4k \ \ for \ k$

16. $y = mx + b \ \ for \ m$

Write the sentence as an equation using x as the number:

17. Eight more than a number is 15.

18. Four less than a number is 24.

19. A number decreased by 5 equals 25.

20. The product of 7 and a number equals 22.

21. The sum of three times a number and 7 is 22.

22. Twice a number increased by 7 equals 22.

23. The sum of 100 and a number is equal to three times the number.

24. If 3 times a number is decreased by 12, the result is the same as twice the number increased by 24.

25. When 9 is subtracted from 5 times a number, the result is 31.

Represent the sentence as an algebraic inequality:

26. x is less than or equal to 15.

27. The maximum value of $4x - 6$ is 54.

28. Six less than a number is less than 4.

29. A number increased by 10 is greater than 50.

30. The greatest possible value of $3y$ is 30.

31. The minimum value of $2x + 1$ is 13.

32. The sum of $5x$ and $2x$ is at least 70.

33. Five times a number, decreased by 24 is greater than 3 times the number.

34. Twice a number increased by 6 is less than 48.