

Writing and Solving Inequalities

Match each inequality with its corresponding statement.

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| 1. $3n < 9$ | a. Three times a number is at most nine. |
| 2. $\frac{n}{3} \geq 9$ | b. The quotient of a number and 3 is no more than nine. |
| 3. $3n \leq 9$ | c. The difference of a number and three is greater than nine. |
| 4. $3+n < 9$ | d. Negative three times a number is more than nine. |
| 5. $-3n > 9$ | e. Three plus a number is less than nine. |
| 6. $\frac{n}{3} \leq 9$ | f. Three times a number is less than nine. |
| 7. $n-3 > 9$ | g. The product of -3 and a number is at least nine. |
| 8. $-3n \geq 9$ | h. A number divided by 3 is greater than or equal to nine. |

Define the variable, write an inequality, and solve each problem. Then check your solution.

9. Four times a number is greater than negative twelve.

10. The quotient of a number and -6 is at most two.

11. The sum of twice a number and four is less than 12.

12. Four more than the quotient of a number and three is at least nine.

13. The sum of a number and fourteen is less than or equal to three times the number.

14. Three times a number decreased by eight is at most negative seventeen.

15. Four times the sum of a number and two increased by three is at least twenty-seven.