

Name: _____ Date: _____ Period: _____

Solve Multi-Step Inequalities
Worksheet 355

Solve each inequality. Then check your solution.

1. $11y + 13 \geq -1$

2. $8n - 10 < 6 - 2n$

3. $\frac{q}{7} + 1 > -5$

4. $6n + 12 < 8 + 8n$

5. $-12 - d > -12 + 4d$

6. $5r - 6 > 8r - 18$

7. $\frac{-3x+6}{2} \leq 12$

8. $7.3y - 14.4 > 4.9y$

9. $-8m - 3 < 18 - m$

10. $-4y - 10 > 19 - 2y$

11. $9n - 24n + 45 > 0$

12. $\frac{4x-2}{5} \geq -4$

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

13. Negative three times a number plus four is no more than the number minus eight.

14. One fourth of a number decreased by three is less than two.

15. The sum of twelve and a number is no greater than the sum of twice the number and -8 .

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**Solve Multi-Step Inequalities
Worksheet 356**

Solve each inequality. Then check your solution.

1. $2(t + 3) \geq 16$

2. $3(d - 2) - 2d > 16$

3. $4h - 8 < 2(h - 1)$

4. $6y + 10 > 8 - (y + 14)$

5. $4.6(x - 3.4) > 5.1x$

6. $-5x - (2x + 3) \geq 1$

7. $3(2y - 4) - 2(y + 1) > 10$

8. $8 - 2(b + 1) < 12 - 3b$

9. $-2(k - 1) > 8(1 + k)$

10. $0.3(y - 2) > 0.4(1 + y)$

11. $m + 17 \leq -(4m - 13)$

12. $3n + 8 \leq 2(n - 4) - 2(1 - n)$

13. $2(y - 2) > -4 + 2y$

14. $k - 17 \leq -(17 - k)$

15. $n - 4 \leq 0 - 3(2 + n)$

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

16. Twice the sum of a number and 4 less than 12.

17. Three times the sum of the number and six is greater than four times the number decreased by two

18. Twice the difference of a number and four is less than the sum of the number and five.