

HW12: One-Variable Inequalities

Complete on a separate sheet of paper.

Draw a graph for each inequality.

1) $x \geq -2$

2) $-4 > x$

3) $n \leq 0.6$

4) $n \leq -2.9$

Write each as an algebraic expression.

5) n increased by 5 is less than or equal to 22

6) t cubed is greater than 46

Write each as a verbal expression.

7) $n - 4 \geq 21$

8) $x + 7 \leq 10$

Solve each inequality and graph its solution. Recall that you *must* provide the solution (e.g. $x < 7$) for full credit.

9) $33 > 11a$

10) $\frac{v}{9} < 10$

11) $-60 \leq -12a$

12) $-5 \leq k + (-19)$

13) $-35 \geq -2x - 3$

14) $-14 > -6m + 4$

15) $153 \leq -9(b + 1)$

16) $9 \leq -3n - 3$

17) $-6 \geq -10 + \frac{x}{3}$

18) $3 + \frac{x}{3} \leq 8$

19) $\frac{-6 + p}{-10} \geq -1$

20) $22 < -8 + 3k$

21) $4 \leq 6 - 4m + 6$

22) $15 \leq 8 + 7p - 7$

23) $x - 7x \leq 18$

24) $-15 > -7x + 4x$

25) $133 \leq 8n - 3(-2n - 7)$

26) $8k - 5(7 - 4k) < -91$

27) $-96 > 8(x - 4)$

28) $-180 \leq 5(8p - 1) - 5p$