

Bell Ringer

Section 1.7

- What are the solutions of $5 + 6t > 17$?
 $\frac{5}{6} + \frac{6t}{6} > \frac{17}{6}$
 $t > 2$
- You want to fence off a rectangular garden that is adjacent to a building, using a wall as one side. The length of the building is 12 ft. You have 32 ft of fencing. What are the possible widths of the garden?
 $W \leq 10 \text{ ft}$
 $W = 4 \text{ ft}$
 $12 \quad \boxed{W} \quad 28 \text{ ft}$
- Which is a solution of $2(x + 5) - x \leq 3$?
A. -7
B. -1
C. 1
D. 7
- What is the solution of $\frac{3x}{7} - \frac{x}{3} > 20$?
 $\frac{14}{7}(x)$
 $6x - 7x = 280$
 $\frac{-x}{7} = 280$
 $x = -280$

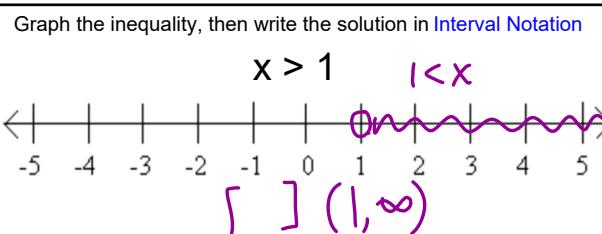
correct hw 1.6 9-13, 17-21 (skip 19), 23-33 odds

5 18 20, 21 6 /
Correct x 10 3 round up /14

due tomorrow:
hw 1.7: 11-18 all, 19-27 odds, 37, 38

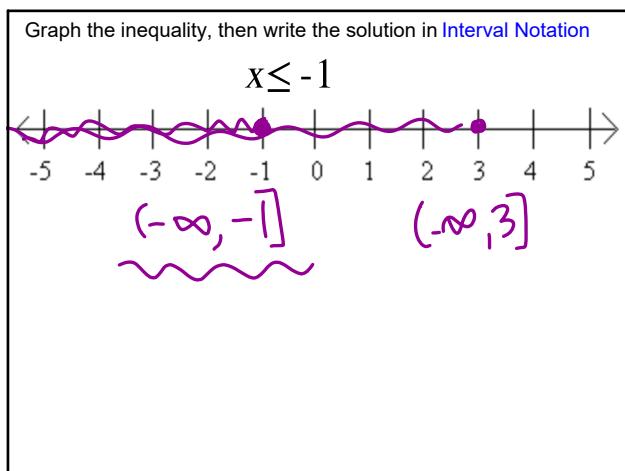
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Interval Notation.... not in book

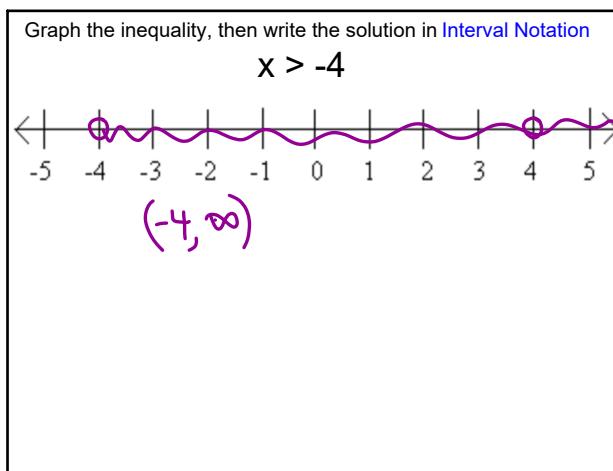


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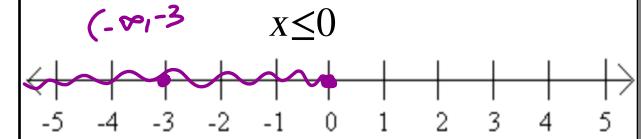
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$[\quad] \quad \leftarrow \text{closed} \quad 1 \leq x \leq 4$
 $(\quad) \quad \leftarrow \text{open} \quad -4 < x < 5$
 $(-8, \infty)$

Graph the inequality, then write the solution in Interval Notation



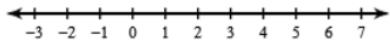
$[0, \infty) (-\infty, 0]$

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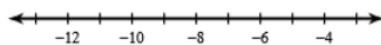
1 - Solve the inequality 2 - Graph the Solution
3 - Write solution in Interval Notation

1) $-4 < -8x + 7x$



1 - Solve the inequality 2 - Graph the Solution
3 - Write solution in Interval Notation

7) $-102 < 6(1 + 3m)$



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SMI Name _____ ID: 1

Solve and Graph inequalities Date _____ Period ____

Solve each inequality and graph its solution. Then write the solution in interval notation.

1) $-4 < -8x + 7x$ 2) $5a - 1 + 8a \leq -1$

3) $1 - r + 7r < -17$ 4) $-20 < -8p + 3p$

5) $x + 3 + 4 < 13$ 6) $6(1 + 3r) \leq -120$

7) $-102 < 6(1 + 3m)$ 8) $268 \leq 2v + 8(-1 - 6v)$

9) $3(-8 + 6b) - 7 > -85$ 10) $179 \geq 6(1 - 7a) + 5$

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11) $-153 > -3 - 6(1 + 3a)$ 12) $-123 \geq 3(1 - 6a)$

13) $2p - p < 4 + 3p$ 14) $2m - 1 > -8 + m$

15) $r + 3 > 9 - r$ 16) $-x + 4 < -3x - 2x$

17) $x - 2 + 3x \leq 8 + 6x$ 18) $-38 - 3b > -7(1 - 4b)$

19) $-5a + 22 < 7(1 - 2a) + 4a$ 20) $3(7 - 3x) \leq -6x + 24$

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SMI Name _____ ID: 1
Solve and Graph inequalities Date _____ Period _____

Solve each inequality and graph its solution. Then write the solution in interval notation.

1) $-4 < -8x + 7 \leq$
 $\frac{-4}{-8} < \frac{-8x + 7}{-8} \leq \frac{7}{-8}$
 $\frac{1}{2} < x - \frac{7}{8} \leq -\frac{7}{8}$
 $x > -\frac{7}{8}$

2) $5n - 1 + 8n \leq -1$
 $5n + 8n \leq -1 + 1$
 $13n \leq 0$
 $n \geq 0$

3) $1 - r + 7r < -17$
 $1 + 6r < -17$
 $6r < -18$
 $r < -3$

4) $-20 < -8p + 3p$
 $-20 < -5p$
 $p > 4$

5) $x + 3 + 4 < 13$
 $x + 7 < 13$
 $x < 6$

6) $6(1 + 3r) \leq -120$
 $6 + 18r \leq -120$
 $18r \leq -126$
 $r \leq -7$

7) $-102 > 6(1 + 3m)$
 $-102 > 6 + 18m$
 $-108 > 18m$
 $m > -6$

8) $268 \leq 2v + 8(-1 - 6v)$
 $268 \leq 2v - 8 - 48v$
 $268 \leq -46v$
 $v \leq -6$

9) $3(-8 + 6b) - 7 > -85$
 $-24 + 18b - 7 > -85$
 $18b > -54$
 $b > -3$

10) $179 \geq 6(1 - 7a) + 5$
 $179 \geq 6 - 42a + 5$
 $178 \geq -42a$
 $a \geq -4$

11) $-153 > -3 - 6(1 + 3n)$
 $-153 > -3 - 6 - 18n$
 $-153 > -9 - 18n$
 $-144 > -18n$
 $n > 8$

12) $-123 \geq 3(1 - 6n)$
 $-123 \geq 3 - 18n$
 $-126 \geq -18n$
 $n \geq 7$

13) $2p - p < 4 + 3p$
 $p < 4 + 3p$
 $p > -2$

14) $2m - 1 > -8 + m$
 $2m - m > -8 + 1$
 $m > -7$

15) $r + 3 > 9 - r$
 $2r > 6$
 $r > 3$

16) $-x + 4 < -3x - 2x$
 $-x + 5x < 0$
 $4x < 0$
 $x < -1$

17) $x - 2 + 3x \leq 8 + 6x$
 $4x - 2 \leq 8 + 6x$
 $-2 \leq 2x$
 $x \geq -1$

18) $-38 - 3b > -7(1 - 4b)$
 $-38 - 3b > -7 + 28b$
 $-38 - 25b > 0$
 $b < -1$

19) $-5n + 22 < 7(1 - 2n) + 4n$
 $-5n + 22 < 7 - 14n + 4n$
 $-5n + 22 < -10n + 7$
 $15 < 5n$
 $n > -3$

20) $3(7 - 3v) \leq -6v + 24$
 $21 - 9v \leq -6v + 24$
 $21 - 3v \leq 24$
 $-3v \leq 3$
 $v \geq -1$

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11) $-153 > -3 - 6(1 + 3n)$
 $n > 8$

12) $-123 \geq 3(1 - 6n)$
 $n \geq 7$

13) $2p - p < 4 + 3p$
 $p > -2$

14) $2m - 1 > -8 + m$
 $m > -7$

15) $r + 3 > 9 - r$
 $r > 3$

16) $-x + 4 < -3x - 2x$
 $x < -1$

17) $x - 2 + 3x \leq 8 + 6x$
 $x \geq -1$

18) $-38 - 3b > -7(1 - 4b)$
 $b < -1$

19) $-5n + 22 < 7(1 - 2n) + 4n$
 $n > -3$

20) $3(7 - 3v) \leq -6v + 24$
 $v \geq -1$

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