- Classwork / Homework:

p. 298

Must copy down questions and show ALL work

Remember :
Inequalities must have a graph accompanying

4
#6
#7 sketch out graphs
#9
#12
13

Worksheets

Getting Ready for a Test

1) $2x + 7 < -5x - 8$

2) $5p + 2 - 3p = 8 + 4p - 6$

3) $6(x-3) \geq -4(2x+5)$

4) $\frac{5x}{6} - 2 \leq \frac{-1x}{4} + 3$

5) $\frac{3}{2}(1 + 3r) = \frac{2}{3}(2 - 3r)$

If you see fractions you must work with fractions.

Getting Ready for a Test

$x < \frac{-15}{7}$

1) $2x + 7 < -5x - 8$

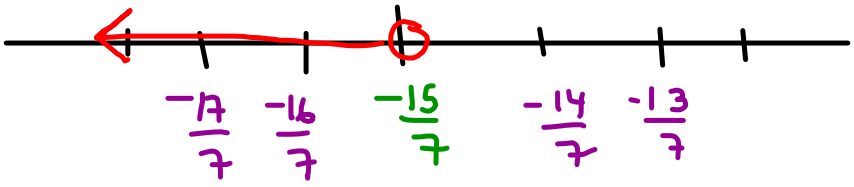
$+5x \quad +5x$

$7x + 7 < -8$ $-7 \quad -7$

$\frac{7x}{7} < \frac{-15}{7}$

$x < \frac{-15}{7}$

If you see fractions y
must work with
fractions.



Getting Ready for a Test

p = 0

2) 5p + 2 -3p = 8 + 4p -6

$2p + 2 = 2 + 4p$ (-4p, -2p)

$2^{-2} = 2^{-2} + 2p$

$\frac{0}{2} = \frac{2p}{2}$

$p = 0$

If you see fractions you must work with fractions.

Getting Ready for a Test

3) $6(x-3) \geq -4(2x+5)$

$+8x \quad +8x$

$6x - 18 \geq -8x - 20$

$+18 \quad +18$

$14x - 18 \geq -20$

$\frac{14x}{14} \geq \frac{-2}{14}$

$x \geq -\frac{2}{14}$

$x \geq -\frac{2}{14}$

If you see fractions you must work with fractions.

$x \geq -\frac{1}{7}$

$x \geq -\frac{1}{7}$

Getting Ready for a Test

$x \leq \frac{60}{13}$

If you see fractions you must work with fractions.

4) $\frac{5x}{6} - 2 \leq \frac{-1x}{4} + 3$ $\quad (12)\ (12)\ (12)\ (12)$

$+3x \qquad +3x$

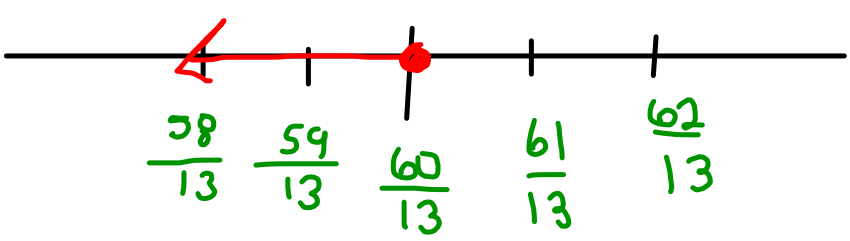
$10x - 24 \leq -3x + 36$

$+24 \qquad +24$

$13x - 24 \leq 36$

$\frac{13x}{13} \leq \frac{10}{13}$

$x \leq \frac{60}{13}$



Getting Ready for a Test

5) $\frac{3}{2}(1 + 3r) = \frac{2}{3}(2 - 3r)$

$\frac{3}{2}^{(6)} + \frac{9r}{2}^{(6)} = \frac{4}{3}^{(6)} - \frac{6r}{3}^{(6)}$

$9 + 27r = 8 - 12r$ (+12r, +12r)

$9^{-9} + 39r = 8^{-9}$

$\frac{39r}{39} = \frac{-1}{39}$

$r = \frac{-1}{39}$

$r = \frac{-1}{39}$

If you see fractions you must work with fractions.

Copy Down

Switch the inequality sign ONLY when you divide or multiple by a negative

Solving a Multi-Step Inequality

What if you solve for a negative "variable"

1) $\frac{-2n}{-2} > \frac{12}{-2}$

$n < -6$

2) $-\frac{n}{4}^{(4)} > 2^{(4)}$

$\frac{-n}{-1} > \frac{8}{-1}$

$n < -8$

Solving a Multi-Step Inequality

What if you solve for a negative "variable"

2) $-2n - 5 > 6n + 7$

Solving Problems Using Inequalities:

Alison plans to rent a hall for her grad party.

- The Douglastown Rec Centre charges $90 plus $20 an hour.
- The Chatham Head Rec Centre charges $100 plus $19 an hour.

For how many hours must she rent the hall in Douglastown in order for it to be less expensive than the hall in Chatham Head?

Write an expression that reprsents each scenario

Let h = number of hours

Douglastown: 90 + 20h Chatham Head: 100 + 19h

Set up the inequality D < C

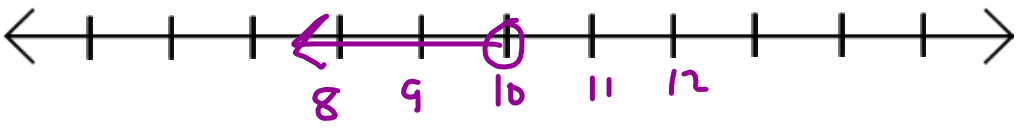
$90 + 20h < 100 + 19h$

$-19h \quad -19h$

$90 + 1h < 100$

$-90 \quad -90$

$1h < 10$



1) $x \neq -2$

2) $x \neq 3$

3) $x \neq -4$

4) $x \neq 6$

5) $x \neq 4.25$

6) $x \neq -2.5$

7) $x \neq 1.5$

8) $x \neq -3.25$

9) $x > 5$

10) $x > 3$

11) $x < 2$

12) $x < 4$

13) $x < -1$

14) $x < 6$

15) $x > -4$

16) $x > -1$

17) $x \leq 2$

18) $x \leq 4$

19) $x \geq -3$

20) $x \geq -1$

21) $x \geq -2$

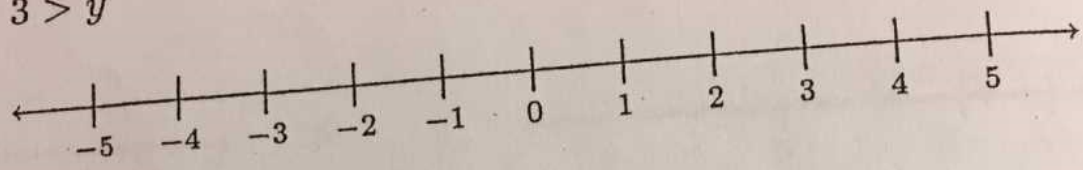
22) $x \geq -5$

23) $x \leq 4$

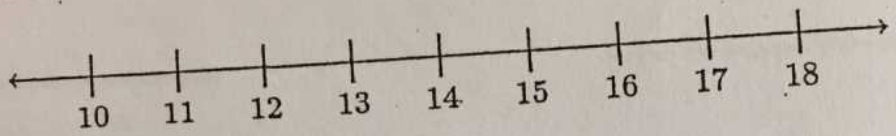
24) $x \leq 2$

Graphing Inequa

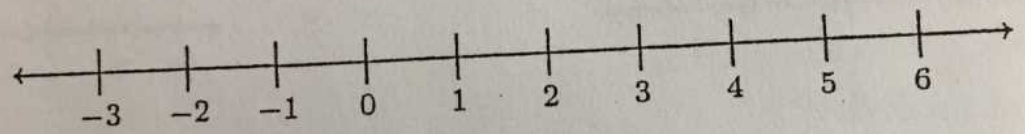
1. $3 > y$



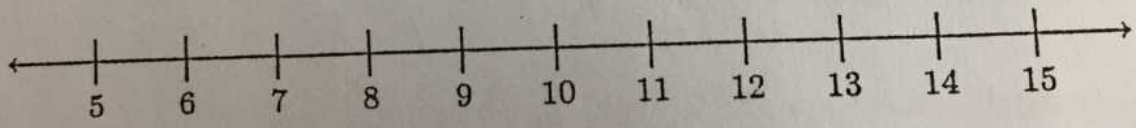
2. $r > 13$



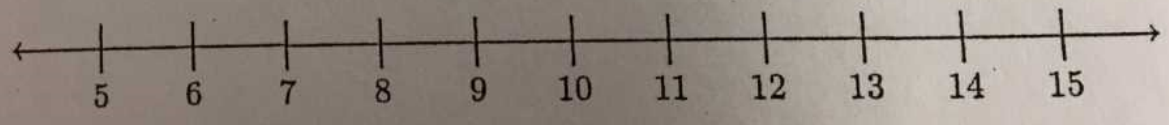
3. $2 > z$



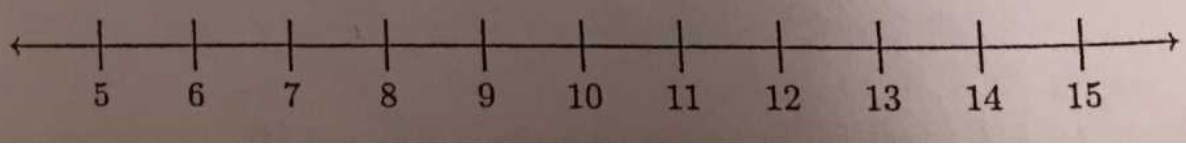
4. $12 < a$



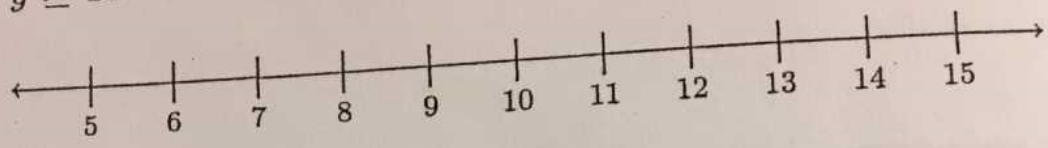
5. $y \geq 10$



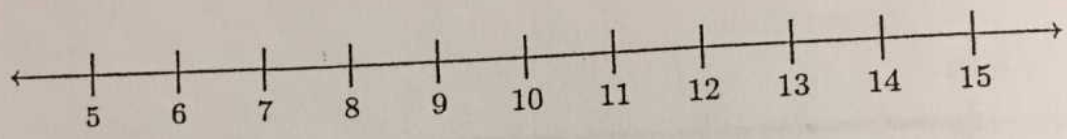
6. $d < 9$



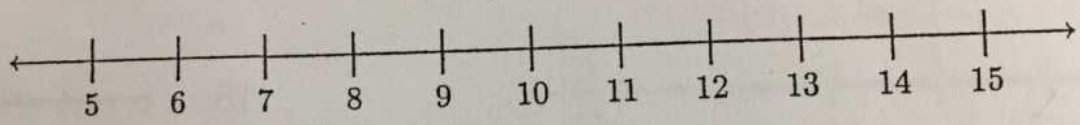
5. $y \geq 10$



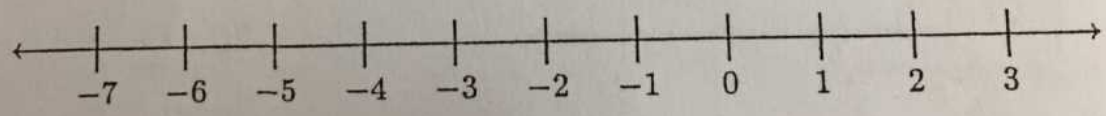
6. $d < 9$



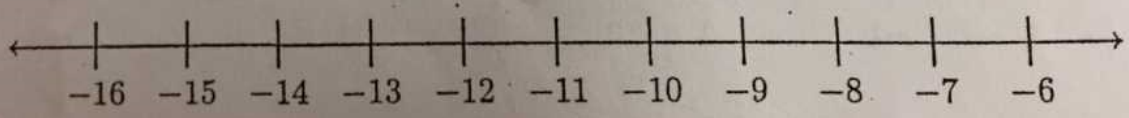
7. $a \neq 6$



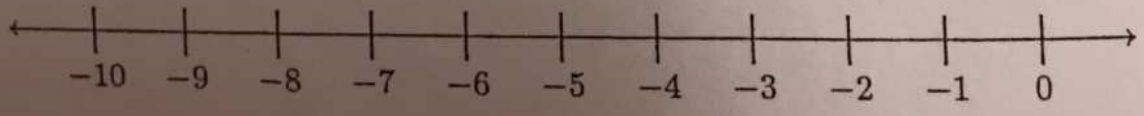
8. $-2 < x$



9. $n \geq -12$



10. $a < -5$



Class/Homework

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Don't need to graph or verify

* Questions:
  7abd,9ace,10,11ac,12ac,
  13,16ac,17a,18

* Test on Thursday Feb 28

Worksheet **Answer:**

1) $x + 14 > 10$

2) $15 + n \leq -2$

3) $\frac{v}{6} < 16$

4) $-19 < k - 18$

5) $a - 6 \leq 6$

6) $9x \leq 153$

13) $-14 - 3n - 7n < 7 - 7n$

14) $1 - k \geq 5k + 3 + 3 + 13$

15) $5 + 12p < 10 + 7p + 10$

16) $-2 + 6x \geq x - 2$

$n \geq 0$

17) $-6 - 5n + n \leq -3n - 2n$

18) $12 - 6r < 5 - 5r$

19) $-12 + 8m - 4m > 7m + 6 + 3m$

20) $-15 - 7x - 2x < -5x - 7x$

21) $n + 5 > 5n - 8n - 3$

22) $2b - 8b > -16 + 8 - 4b - 2$

23) $\frac{3}{5}(x + 15) \leq \frac{1}{10}(20x - 30)$

24) $\frac{m}{4} - 2 \geq 6 - \frac{m}{3}$

7) $-7 < \frac{p}{2} - \frac{2}{3}$

8) $11n < 121$

9) $-18 \leq \frac{m}{2} + 3$

10) $\frac{p}{19} < \frac{-5}{19}$

11) $-3x + \frac{2}{5} > \frac{-1x}{2} - 6$

12) $-7x + 9 \leq -7x + 8$