Examples:

Solve for x

1) $7 - 6x = 85$

Fraction multiply by the common denominator

2) $\frac{-6x}{4} + 7 = \frac{4}{5}$

"x" on opposite sides

3) $10x + 4 = -2x - 32$

Brackets

4) $6(x-3) = 30$

5) Bracket and Fractions

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

6) Negative inequalties

$-3x < 12$

Examples:

Solve for x

1) $7 - 6x = 85$ (-7)

$-6x = 78$

$\frac{-6x}{-6} = \frac{78}{-6}$

$x = -13$

Fraction multiply by the common denominator

2) $\frac{-6x}{4} + 7 = \frac{4}{5}$ (·20)

$\frac{-120x}{4} + 140 = \frac{80}{5}$

$-30x + 140 = 16$

$-30x + 140 = 16$ (-140)

$-30x = -124$

$\frac{-30x}{-30} = \frac{-124}{-30}$

$x = \frac{62}{15}$

"x" on opposite sides

3) $10x + 4 = -2x - 32$

$10x + 4 = -2x - 32$ (+2x)

$12x + 4 = -32$ (-4)

$12x = -36$

$\frac{12x}{12} = \frac{-36}{12}$

$x = -3$

Brackets

4) $6(x-3) = 30$

$6x - 18 = 30$

$6x - 18 = 30$ (+18)

$6x = 48$

$\frac{6x}{6} = \frac{48}{6}$

$x = 8$

5) Bracket and Fractions

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

$\frac{2x}{3} + \frac{6}{3} = 5x - 5$

$\frac{2x}{3}(3) + \frac{6}{3}(3) = 5x(3) - 5(3)$

$\frac{6x}{3} + \frac{18}{3} = 15x - 15$

$2x + 6 = 15x - 15$

$2x + 6 = 15x - 15$ (-15x)

$-13x + 6 = -15$ (-6)

$-13x = -21$

$\frac{-13x}{-13} = \frac{-21}{-13}$

$x = \frac{21}{13}$

6) Negative inequalities

NOTICE INQUALITY CHANGED

$-3x < 12$

$\frac{-3x}{-3} \quad \frac{12}{-3}$

$x > -4$

Classwork / Homework:

p. 298 Questions:
4ace, 6ac, 7, 9acef, 12,13

p. 305 Questions:
7abd,9ace,10,11ac,12ac,
13,16ac,17a,18

Test Review Questions

Page 308 - 309		Page 310(Practice test)
#3	#10	#2
#4	#15	#3
#7	#16	#4
#9		#5
		#6

Test on Thursday March 1

As well you have a Worksheet

Name _____

Solving Equations (Section 6.1-6.2) Date _____ Period ____

Solve each equation. (Show all work)

1) $-4 = 2(x - 6)$

2) $-54 = n + 4(n - 6)$

3) $5(1 - 7m) = 40$

4) $-6(2 + 7r) = -54$

5) $-12 = -4 + 8(5x - 1)$

6) $5(n + 1) = 45$

7) $10b - 32 - 2b = -4(2 + b)$

8) $-2(1 + 4v) = -6(3 + v)$

9) $-2 = \frac{-3 + x}{8}$

10) $2 = \frac{2}{3} + \frac{x}{4}$

11) $\frac{2}{5}(x - 7) = \frac{1}{4}(2x - 1)$

12) $-7 - 9k = 29$

13) Ted and Fred each have a Tractor Trailer Cleaning Business. Ted charges $32 per hour and a flat rate of $44 to clean a truck. Fred on the other hand charges a flat rate of $100 and $24 per hour to clean a truck. Use an equation to find out when they charge the

90

Math 9

Name _____

Inequalities ICA

Per/Sec. _____ Date _____

Solve and graph. Show all work (Section 6.3 – 6.5)

1. $-3y \geq 24$

2. $-2c \leq 26$

3. $4 - c < 16$

4. $15 < -k + 8$

5. $3k + 8 \geq 17$

6. $-9 \leq 2a - 25$

7. $21 < -4 - 5a$

8. $-3k + 14 < 2$

9. $-9x + 71 \geq 17$

10. $-25 < -4c - 13$

Write a scenerio for each situation.

1) Karen needs to make a mark of at least 87 on his Math exam in order to pass the course.

2) Ted has a lemonade stand and it cost him $3.15 to buy his cups and juice. He wants to buy an action figure for $8.25 so he decided to sell his lemonade for $0.57 per cup. Write an inequality that represents the situation. (Solve it)

Unit 6-Equations & Inequalities Test Review (Day 2)

rt 1) Solve each of the following.

1) $4(x-1) + 4x = 2(3x+1)$

2) $\frac{1}{2}(4x+2) = \frac{1}{3}(x-1)$

3) $\frac{1x}{15} + \frac{1}{3} + \frac{2x}{5} + 4 = \frac{2}{15}$

4) $3.2(x+7.2) = 1.2(4.2-x)$

5) $3x - 2 + 5x = 19$

6) $12x + 5 = 50 - 3x$

Part 2) Solve and graph each inequality

1) $3x + 7 \geq 4x + 18$

2) $18x - 10 < 44$

3) $\frac{1}{2}(x+7) \leq 2(3x-1)$

4) $-12 > \frac{2}{3}c + 4$

Part 3) Write the inequality that describes the situation and SOLVE

1) To cater a wedding Company A charges $40 a plate and Company B charges $15 plus a flat rate of $300. When is it COMPANY B less than Company A?

2) Each class room in school can have no more than 29 students: _____

3) The minimum fine for speeding is $172.50 : _____

4) In order to pass the next test you must make a mark of 60 or greater: _____

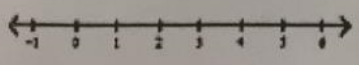
Solve each equation.

1) $-7(2b+3)=-7$

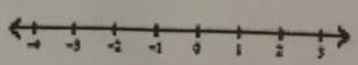
2) $47=-4(3n+1)+3$

Solve each inequality and graph its solution.

3) $20 < 5(1+x)$



4) $6(1+4v)+4v \leq -22$



Chapter 6 : Test Review Worksheets

Solving Equations (Section 6.1-6.2)

Answers :

1) $x=4$ 2) $n=-6$ 3) $m=-1$ 4) $r=1$ 5) $x=0$

6) $n=8$ 7) $b=2$ 8) $v=8$ 9) $x=-13$ 10) $x=\frac{16}{3}$

11) $x=\frac{-51}{2}$ 12) $k=-4$ 13) $h=7$

Inequalities ICA (Section 6.3-6.5)

Answers :

1) $y \leq 8$ 2) $c \geq -13$ 3) $c > -12$ 4) $k < -7$ 5) $k > 3$

6) $a \geq 8$ 7) $a < -5$ 8) $k > 4$ 1) $m \geq 87$ 2) $c > 20$

Unit 6 - Equations & Inequalities (Test review day 2)

Answers :

Part A

1) $x=3$ 2) $x=\frac{-4}{5}$ 3) $x=-9$ 4) $x=-4.0\overline{9}$ 5) $x=\frac{21}{8}$ 6) $x=3$

Part B

1) $x \leq -11$ 2) $x < 3$ 3) $x \geq 1$ 4) $c < -24$

Part C

1) $p > 12$ 2) $c \leq 29$ 3) $m \geq 172.50$ 4) $m \geq 60$

Part D

1) $b=-1$ 2) $n=-4$ 3) $x > 3$ 4) $v \leq -1$