

Name: _____ Algebra 9 Unit 2 Lesson 8

Inequalities

DO NOW ~ Wednesday 11/20

Circle which integer is greater: -8 or -6



Classwork

Greater Than	Greater Than or Equal To	Less Than	Less Than or Equal To
$>$	$\geq$	$<$	$\leq$

For each inequality, state whether it is true or false.

(a) $7 > 3$

T

(b) $0 < 10$

T

(c) $9 > 12$

F

(d) $4 \leq 4$

T

(e) $7 \geq 2$

T

(f) $3.5 \leq 4.2$

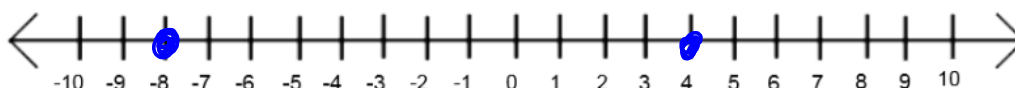
T

(g) $256 > 312$

F

(h) $1,978 \leq 2,042$

T

Consider the statement $-8 < 4$. Do you think this is true or false? Why?

(a) $3 > -4$



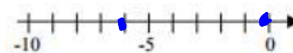
True

(b) $-5 > -3$



False

(c) $0 > -6$



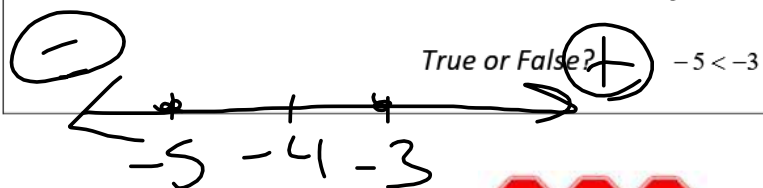
True

To earn your full participation point for the Do Now be sure to have completed all of the following by the time is up:

- 1) Be in your seat
- 2) Take out your calculator
- 3) Have last night's homework out
- 4) Complete the do now



DO NOW ~ Thursday 11/21



True



Classwork

Given the inequality $3(x-2) \geq 2x+1$ determine if it is true or false for the following values of x .(a) $x=10$

$$3(x-2) \geq 2x+1$$

$$3(10-2) \geq 2(10)+1$$

$$3(8)$$

$$24 \geq 21$$

True

(b) $x=5$

$$3(5-2) \geq$$

$$3(3)$$

$$9 \geq 11$$

False

(c) $x=1$

$$3(1-2) \geq 2(1)+1$$

$$-3 \geq 3$$

False

(d) $x=7$

$$3(7-2) \geq 2(7)+1$$

$$3(5) \geq 14+1$$

$$15 \geq 15$$

True

Computer Station ~ *Delta Math*

Complete the "Inequalities" Assignment.

Mrs. Kennedy's Station ~ Consecutive Integer Word Problems

Solve Algebraically.

The sum of four consecutive integers is -18 . What are the four integers?

Find three consecutive integers such that three times the largest increased by two is equal to five times the smallest increased by three times the middle integer.

I'm thinking of three consecutive odd integers. When I add the larger two the result is nine less than three times the smallest of them. What are the three consecutive odd integers?

Independent Station ~ True or False?!

1. For each inequality, state whether it is true or false.

(a) $3 \leq 8$

(b) $8 < 4$

(c) $9 > 9$

(d) $1,245 \leq 1,245$

(e) $-12 \geq -6$

(f) $3^2 \leq 5^2$

(g) $(-3)^2 \geq 3^2$

(h) $.99 \leq .98$

2. For each of the following inequalities, determine if it is true or false for the given value of the replacement variable.

(a) $3x + 2 \leq 2x - 5$ for $x = 8$

(b) $3x + 2 \leq 2 - 3x$ for $x = -2$

(c) $(x - 3)^2 > -3(x + 2)$ for $x = 3$

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

Homework ~ Wednesday 11/20

Exercise #5: For each of the following inequalities, determine if it is true or false for the given value of the replacement variable.

(a) $2x + 4 > 4x - 1$ for $x = 1$

(b) $-3(x + 5) \geq \frac{x + 7}{2}$ for $x = -3$

Homework ~ Thursday 11/21

Exercise #5: For each of the following inequalities, determine if it is true or false for the given value of the replacement variable.

(c) $x^2 - 10x + 1 < 20 + 5x$ for $x = -2$

(d) $\frac{2(x-5)+1}{3} \leq \frac{x-2}{9}$ for $x = 5$