Writing Inequalities Worksheet
Topic 4 Homework

Name _____

Period _____

Match each statement with an inequality. Write the letter of the inequality next to the statement.

_____ 1.	The sum of a number and 5 is less than fifteen.	**a.** $n + 7 \geq 15$
_____ 2.	A number times five is greater than fifteen.	**b.** $n + 9 < 30$
_____ 3.	A number less seven is less than or equal to five.	**c.** $n - 7 < 0$
_____ 4.	The difference between a number and seven is less than zero.	**d.** $5n > 15$
_____ 5.	The sum of a number and seven is greater than or equal to fifteen.	**e.** $n - 7 \leq 5$
_____ 6.	A number is greater than fifteen	**f.** $2n < 20$
_____ 7.	Twice a number is less than twenty.	**g.** $n > 15$
_____ 8.	The sum of a number and nine is less than thirty.	**h.** $n + 5 < 15$

Look at the situations below. Circle the numbers that are possible answers in each situation. Then write an inequality for each situation.

1. To pass the test, you must get at least 10 questions correct.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Inequality: _____

2. Kids must be younger than 7 to order off the kids menu.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Inequality: _____

3. Tom needs to have no less than 12 signatures to run for class president.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Inequality: _____

4. To be a good musician, you should be practicing more than 3 hours per day.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Inequality: _____

5. You should spend at most 5 minutes per problem on your test.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Inequality: _____

6. In the winter temperature is typically 5 degrees and above.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Inequality: _____

Challenge:

Write and Solve

Steve rode 4 miles on his bike the first day, m miles on the second day and 7 miles on the third day. If on all three days total he rode no less than 20 miles, how many miles could he had rode on the second day?

Write and Solve

Barry weighs 145 pounds but is determined to lose some weight w. If he wants to weigh at most 120 pounds, how much weight will Barry have to lose?

Writing Inequalities Worksheet
Topic 4 Homework

Name Key

Period _____

Match each statement with an inequality. Write the letter of the inequality next to the statement.

h 1. The sum of a number and 5 is less than fifteen. (n + 5 < 15)

d 2. A number times five is greater than fifteen. (n · 5 > 15)

e 3. A number less seven is less than or equal to five. (n − 7 ≤ 5)

c 4. The difference between a number and seven is less than zero. (n − 7 < 0)

a 5. The sum of a number and seven is greater than or equal to fifteen. (n + 7 ≥ 15)

g 6. A number is greater than fifteen (n > 15)

f 7. Twice a number is less than twenty. (2n < 20)

b 8. The sum of a number and nine is less than thirty. (n + 9 < 30)

a. $n + 7 \geq 15$

b. $n + 9 < 30$

c. $n - 7 < 0$

d. $5n > 15$

e. $n - 7 \leq 5$

f. $2n < 20$

g. $n > 15$

h. $n + 5 < 15$

Look at the situations below. Circle the numbers that are possible answers in each situation. Then write an inequality for each situation.

1. To pass the test, you must get at least 10 questions correct.

1 2 3 4 5 6 7 8 9 (10) (11) (12) (13) (14) (15)

Inequality: $x \geq 10$

2. Kids must be younger than 7 to order off the kids menu.

(1) (2) (3) (4) (5) (6) 7 8 9 10 11 12 13 14 15

Inequality: $x < 7$

3. Tom needs to have no less than 12 signatures to run for class president.

1 2 3 4 5 6 7 8 9 10 11 (12) (13) (14) (15)

Inequality: $x \geq 12$

4. To be a good musician, you should be practicing more than 3 hours per day.

1 2 3 (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15)

Inequality: $x > 3$

5. You should spend at most 5 minutes per problem on your test.

(1) (2) (3) (4) (5) 6 7 8 9 10 11 12 13 14 15

Inequality: $x \leq 5$

6. In the winter temperature is typically 5 degrees and above.

1 2 3 4 (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15)

Inequality: $x \geq 5$

Challenge:

Write and Solve

Steve rode 4 miles on his bike the first day, m miles on the second day and 7 miles on the third day. If on all three days total he rode no less than 20 miles, how many miles could he had rode on the second day?

≥ 20

$4 + m + 7 \geq 20$

$-4 \quad -4$

$m + 7 \geq 16$

$-7 \quad -7$

$m \geq 9$ miles on 2nd day

Write and Solve

Barry weighs 145 pounds but is determined to lose some weight w. If he wants to weigh at most 120 pounds, how much weight will Barry have to lose?

* When ÷ by -1 You must flip the inequality symbol!

$145 - w \leq 120$

$-145 \quad -145$

$-w \leq -25$

$\div -1 \quad \div -1$

$w \geq 25$ pounds