HOMEWORK UNIT 2

October 3, 2016

Write the inequality that represents the following situations:
1. The project must be completed in 6 days or less.'
$d \leq 6$
2. There must be at least 8 students to form a club.
$c \geq 8$
3. The temperature should be at least 40 degrees
$t \geq 40$
4. No more than 160 students are in the freshman class.
$s < 140$

Describe the solutions in words:
1. $5 < n$ All real numbers greater than 5
2. $t \geq 5$ All real numbers greater than or equal to 5
3. $s < 7$ All real numbers less than 7

Draw the graph:
1. $m < 3$ 3 ○—>
2. $x > 3$ <— ○ 3
3. $c \geq 0$ 0 ● —>
4. $b < 2$ <— ○ 2

October 4, 2016

Solve & graph the inequality:
Your HW will not count if you do not graph!

1. $2d - 3 > 11$ $d > 7$
2. $b + 7 > -2$ $b > -9$
3. $-3x \geq 15$ $x \leq -5$
4. $-5h + 3 \leq 7$ $h \leq 4/5$
5. $d/3 \geq 6$ $d \geq 18$
6. $m \geq -4m + 15$ OMIT
7. $x + 2 \leq 7$ $x \leq 5$
8. $4x + 8 \leq -20$ $x \leq -7$

October 7, 2016

Solve & graph the inequality:
Your HW will not count if you do not graph!

1. $2x + 7 \geq x + x + 1$ ALL REAL NUMBERS
2. $4y + 7 - y > 2(y + 3)$ $y > -1$
3. $5(w + 1) > 3(w + 1)$ $w > -1$
4. $2(a + 8) > 18$ $a > 1$
5. $b + 1 > b + 6$ NO SOLUTION
6. $-4(x - 1) < 12$ $x > -2$

October 10, 2016

Write, solve, & graph the inequality:
Your HW will not count if you do not do all 3!

1.   A parking lot holds 42 cars. There are 26 cars in the lot already. Write the inequality that can be solved to show all the number of cars, c, that can still park in the lot.
$c + 26 \leq 42$ $c \leq 16$
2.   Tammy wants to run at least 10 miles per week. So far this week, she ran 4.5 miles. What inequality can solve how many more miles Tammy must run to reach her goal?
$M + 4.5 \geq 10$ $m \geq 5.5$
3.   Notebooks cost $1.39 each. What are the possible numbers of notebooks that can be purchased with $10?
$1.39N \leq 10$ $N \leq 7.19$
4.   A sales rep is given a choice of two paycheck plans. One is a monthly base pay of $300 plus 10% commission. The second is $1200 monthly pay. What amount of sales would cause the 1st plan to pay more?
$300 + .10S > 1200$ $S > 9,000$

HOMEWORK UNIT 2

October 11, 2016

Solve & graph the compound inequality:
Your HW will not count if you do not graph!

1. 2x < 24 OR x - 6 > 13 x < 6 OR x > 19
2. 8f < 24 OR f - 11 > -5 f < 3 OR f > 6
3. -8 < n - 2 < 5 -6 < n < 7
4. 6 ≤ x - 2 < 14 8 ≤ x < 16
5. p + 1 < -1 OR p - 5 > 7 p < -2 OR p > 12

Graph the compound inequality:
1. f > -1 AND f < 5 -1 ○———○ 5
2. -3 < x ≤ 2 -3 ○———○ 2
3. x ≤ -5 OR x > 3 <— ● –5   3○— >

October 12, 13

Solve & graph the absolute value inequality:
Your HW will not count if you do not graph!

1. |2x| + 7 < 11 x < 2 AND x > -2
2. 3|x| - 4 > 5 x > 3 OR x < -3
3. 3|x| - 8 < -2 x < 2 AND x > -2
4. 2|x| + 3 > 13 x > 5 OR x < -5
5. |x| - 7 < -3 x < 4 AND x > -4
6. |x| - 5 > 13 x > 18 OR x < -18
7. |x - 14| + 9 > 8 OMIT
8. |2x| - 5 < -1 x < 2 AND x > -2