Math 9 Name_____

6.4 Practice - Solving Linear Inequalities

Block____

Solve each inequality.

1) $x - 6 \le -2$

2) $15 < \frac{x}{4}$

3) $13 > 8 + n$

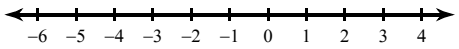
4) $-9 > -16 + b$

5) $-2x \ge 28$

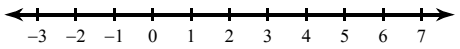
6) $6r \ge -18$

Solve each inequality and graph its solution.

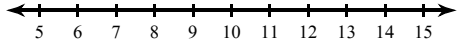
7) $3 + 2x \ge 3$



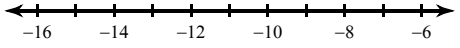
8) $2 \ge -6 + 4x$



9) $-5(p - 5) > -30$



10) $6(p + 10) \le 0$



Solve each inequality.

11) $x - 11 > -2x + 1$

12) $-6 + n < 4 - n$

13) $-9 + 2m < 6m + 3$

14) $-6x - 3 \geq x + 4$

15) $2 - 2b \leq -4 - 4b$

16) $6x - 4x \leq 12 - x$

17) $-16 + 4n > 4(2 + 4n)$

18) $3r + 16 \geq 4(r + 3)$

19) $-2(3+4n)-3<11+2n$

20) $2(2-2v)>-10+3v$

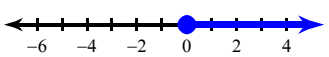
21) $\frac{5}{3}v-\frac{3}{4}<-\frac{1}{12}+v$

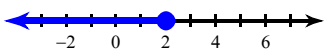
22) $\frac{1}{4}a-\frac{1}{2}<-1+\frac{1}{2}a$

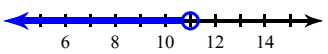
23) Jake plans to board his dog while he is away on vacation. Boarding house A charges $90 plus $5 per day. Boarding house B charges $100 plus $4 per day. For how many days must Jake board his dog for A to be less expensive than B?

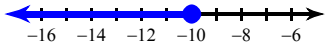
24) The Student Council decides to raise money by organizing a dance. Tickets are $7.50 each, but he cost of hiring the video-DJ is $1200. How many tickets must be sold to make a profit of more than $1500?

Answers to 6.4 Practice - Solving Linear Inequalities

1) $x \le 4$
2) $x > 60$
3) $n < 5$
4) $b < 7$
5) $x \le -14$
6) $r \ge -3$
7) $x \ge 0$: 

8) $x \le 2$: 

9) $p < 11$: 

10) $p \le -10$: 

11) $x > 4$
12) $n < 5$
13) $m > -3$
14) $x \le -1$
15) $b \le -3$
16) $x \le 4$
17) $n < -2$
18) $r \le 4$
19) $n > -2$
20) $v < 2$
21) $v < 1$
22) $a > 2$
23) d < 10 (if less than 10 days, A will be cheaper)
24) t > 360 (more than 360 tickets must be sold)