Algebra 1 Bellwork Tuesday, November 17, 2015

Model each with an inequality.

1. The theater can seat no more that 500 people.

2. The ladder can reach a maximum of 20 feet up the wall.

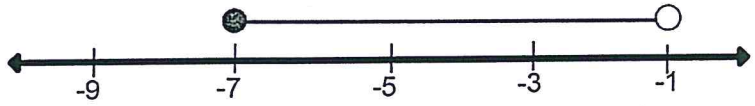
3. They need at least 51% of the people to vote yes for the proposal to pass.

4. The team can have up to 18 players on the roster.

5. The minimum charge allowed to be able to use a credit card is $10.

6. Graph this inequality on a number line. $-4 \leq G$

7. Write the inequality modeled by this graph:



Solve each.

8. $4 - 3(y - 5) + 9y > 15 + 6y$

9. $\frac{11}{9} - \frac{7}{6}M < \frac{5}{12}$

10. $3|2x - 7| + 4 = 31$

11. $\frac{1}{2}|3x + 8| + 13 = 5$

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Model each with an inequality.

1. The theater can seat no more that 500 people.

$P \leq 500$

2. The ladder can reach a maximum of 20 feet up the wall.

$L \leq 20$

3. They need at least 51% of the people to vote yes for the proposal to pass.

$V \geq 51$

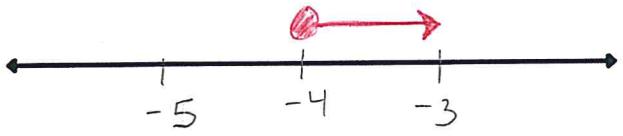
4. The team can have up to 18 players on the roster.

$P \leq 18$

5. The minimum charge allowed to be able to use a credit card is $10.

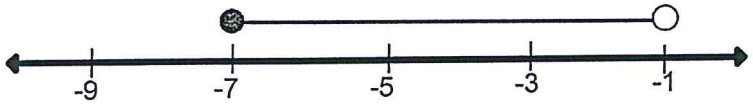
$C \geq 10$

6. Graph this inequality on a number line. $-4 \leq G$



7. Write the inequality modeled by this graph:

$-7 \leq X < -1 \rightarrow X \geq -7$ AND $X < -1$



Solve each.

8. $4 - 3(y - 5) + 9y > 15 + 6y$

$4 - 3y + 15 + 9y$

$6y + 19 > 15 + 6y$
$-6y \quad -6y$

$19 > 15$

ALL REAL #'s

9. $\frac{4}{4} \cdot \frac{11}{9} - \frac{7}{6}M \leq \frac{5}{12} \cdot \frac{3}{3}$

$\frac{44}{36} - \frac{42}{36}M < \frac{15}{36}$

$44 - 42M < 15$
$-44 \quad -44$

$\frac{-42M}{-42} < \frac{-29}{-42}$

$M > \frac{29}{42}$

10. $3|2x - 7| + 4 = 31$
$-4 \quad -4$

$\frac{3|2x-7|}{3} = \frac{27}{3}$

$|2x - 7| = 9$

$2x - 7 = -9$ or $2x - 7 = 9$
$+7 \quad +7 \qquad +7 \quad +7$

$2x = -2 \qquad 2x = 16$

$X = -1, 8$

11. $\frac{1}{2}|3x + 8| + 13 = 5$
$-13 \quad -13$

$2 \cdot \frac{1}{2}|3x + 8| = -8 \cdot 2$

$|3x + 8| = -16$

NO SOLUTION