Algebra 1 B **Name _____**

Module 1 – Solving Equations and Inequalities **Period _____ Date _____**

1. How are $x - 3 = 8$ and $x - 3 < 8$ different? How are their solutions different?

Solve.

2. $8(x - 6) = 64$

3. $-5x + 7 > -3$

4. $4x + 15 = 8x - 45$

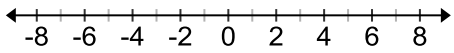
5. $4 - 3(2 + x) \geq 5$

6. $x - 3 \leq 5x + 9$

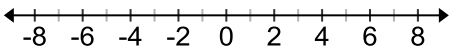
7. $3(2x + 1) = -8$

Solve and graph your solution.

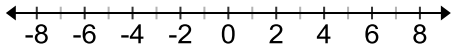
8. $-3 \leq 2x + 3 \leq 7$



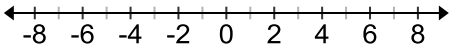
9. $4x + 3 < -5$ or $-6 \geq -2x$



10. $7 > 5 - x > 3$



11. $9 + 2x \leq 7$ or $7 - 5x < -8$



Write the equation or inequality that best represents the problem.

12. The selling price for a stereo is $\$350$. This selling price is $\$35$ more than three times the wholesale cost. Write and solve an equation to find the wholesale cost w.

13. The high temperature yesterday was $82°\text{F}$ and the low was $68°\text{F}$. Write an inequality that describes the range of temperatures t yesterday.

14. A store makes a profit of $\$3$ on each t-shirt that it sells. Write and solve an inequality to determine how many t-shirts n the store must sell to make a profit of at least $\$400$?

15. A music club sells CDs for $\$15.95$ each plus $\$2.95$ shipping and handling. If Jordan's total bill is $\$98.65$, write and solve an equation to determine the number of CDs c Jordan purchased.

16. A catering business specializes in catering wedding receptions. They charge $\$550$ for setting up the buffet and an additional $\$6.50$ per guest. Mr. and Mrs. Stager want to spend no more than $\$1200$ on the catering for their daughter's wedding. Write and solve an inequality to determine the maximum number of guests g they can invite to the reception.