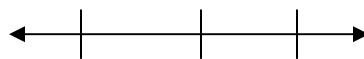


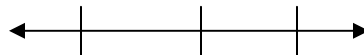
Objective: To write and solve linear inequalities

Write an inequality for each situation below. Then, solve and graph the inequality.

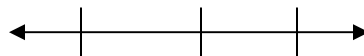
1. The difference of a number and 2 is greater than 12.



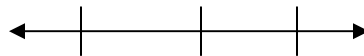
2. The product of a number and -3 is at most -6 .



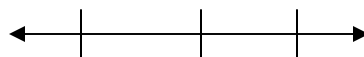
3. The sum of 2 times a number plus 5 is no less than 8.



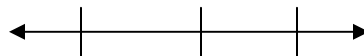
4. A number decreased by 7 is no more than 40.



5. The quotient of a number and -4 is at least 2.



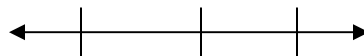
6. A number times -2 plus 1 is at least 15.



7. The product of a number and -5 is more than the number plus 3.



8. A number times -6 plus 4 is greater than 14 minus the number.



REVIEW QUESTIONS:

9. Solve. $5 - (6 - x) = 12$

10. Solve. $\frac{4}{5}(2x + 10) - 3 = 9$

11. Solve. $4x - 3 + x = 5 - 2(2x + 1)$

12. Solve. $3 - 7x + 2x = 2(-3x - 4) + x + 11$

13. Solve. $4|2x + 1| - 3 = -5$

14. Solve. $\frac{1}{2}|4 - x| - 5 = -1$

JUMBLED ANSWERS (*Solved answers only!*)

$x \leq 47$

$x > 14$

$x = \frac{5}{2}$

Many Solutions

No Solution

$x < -2$

$x = 13$

$x = 12$

$x \geq 2$

$x \leq -8$

$x = \frac{2}{3}$

$x \leq -7$

$x \geq \frac{3}{2}$

$x < -\frac{1}{2}$

$x = -4$