Solving Inequalities

(using addition and subtraction)

HTTP://COACHANTOINE.BLOGSPOT.COM

Graphing Inequalities

(using addition and subtraction)

On a number line, the graph of an inequality in one variable is the set of points that represent all solutions of the inequality.

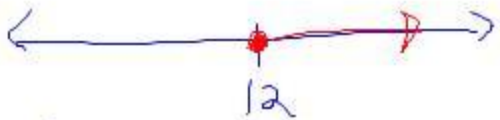
To graph an inequality in one variable, use an open circle for $<$ and $>$ and a closed circle for $\leq$ and $\geq$.

Solving Inequalities

(using addition and subtraction)

Who is the youngest kid in the classroom?

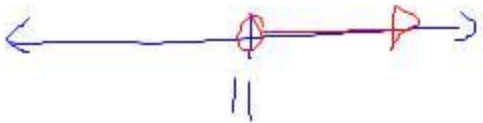
age ≥ 12



Let's make two math statements

to show this situation.

age > 11



Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

Solve $x - 5 > -3.5$

Graph your solution.

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

Solve $x - 5 > -3.5$

Graph your solution.

$$x - 5 > -3.5$$
$$+5 \quad +5$$
$$x > 1.5$$

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

Solve $x - 5 > -3.5$

$x > 1.5$

Graph your solution.

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

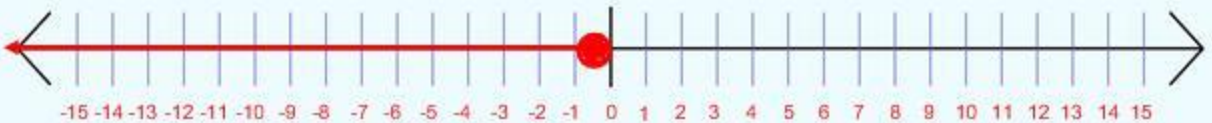
Solve $-1 \geq m - \frac{1}{2}$

Graph your solution.

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.



Solve $-1 \geq m - \frac{1}{2}$

$-\frac{1}{2} \geq m$

Graph your solution.

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

Solve $-8 \leq 8 + y$

Graph your solution.

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

Solve $-8 \leq 8 + y$

$$-16 \leq y$$

Graph your solution.

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

The sum of 12 and x is at least 10.

Write the inequality, solve it and graph the solution.

Solving Inequalities

(using addition and subtraction)

Equivalent inequalities are inequalities that have the same solutions.

The sum of 12 and x is at least 10.

$12 + x \geq 10$ $x \geq -2$

Write the inequality, solve it and graph the solution.

Solving Inequalities
(using addition and subtraction)

In 2008, Tom Brady set the NFL record with 50 touchdown passes in one season. So far this season he has 8 touchdown passes. Write, solve, and graph an inequality to show a possible number of additional touchdown passes he can throw to break his own record.

$50 < 8 + p$

$-8 \quad -8$

$42 < p$