

Math 9
Ch. 6 – Linear Equations and Inequalities

Name: _____
Block: _____

6.3 – Linear Inequalities

An **inequality** is used to model a situation that can be described by a range of numbers instead of just a single number (in which case we use an **equality**).

Eg. An equality: The cost of admission is \$5. (\$5 is the only option) =

An inequality: You can spend up to \$5 on the Secret Santa gift. (So can spend from \$0 – \$5 and any amount in-between)

Inequality	Meaning	Key words/phrases
$<$	Less than	under, below, (sub, beneath)
\leq	Less than or equal to	maximum, up to, at most, no more than
$>$	Greater than	over, higher than, more than
\geq	Greater than or equal to	minimum, at least

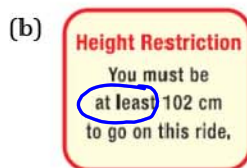
Ex. 1: Define a variable ^{x, y, t etc.} and write an inequality to describe each situation.



s = vehicle's speed

$$s \leq 55$$

OR $55 \geq s$



h = person's height

$$h \geq 102$$



t = fridge temp.

$$t < 4$$

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A linear equation (contains =) has only one solution. A linear inequality (contains one of <, ≤, ≥ or >) has many solutions. We can illustrate the solutions of an inequality by graphing them on a number line.

Ex. 2: Graph each inequality and state 3 possible solutions.

