

Vocabulary Review Sheet

Lesson – Inequalities and the Technology Gap

How to Use

- Review each definition carefully before your quiz.
- Read the **math**, **real-life**, and **fairness** examples to see how inequalities help identify and close gaps in resources.
- Keep this sheet in your *Equity in Numbers Student Journal* to connect math reasoning with fairness in technology access.
- Remember: *An inequality shows when something is missing — and math helps balance that difference.*

Inequality

- **Definition:** A mathematical statement that compares two expressions using symbols like $<$, $>$, \leq , or \geq .
- **Math Examples:**
 - $(x + 250 \geq 400)$
 - $(y + 300 \leq 800)$
 - $(500 + x > 650)$
- **Real-Life Example:** A school has 250 laptops but needs at least 400 for all students $\rightarrow (250 + x \geq 400)$.
- **Fairness Example:** Inequalities help measure the technology gap — showing which schools have less and how to close the divide.

Variable

- **Definition:** A letter or symbol that stands for an unknown number.
- **Math Examples:**
 - (x) = number of additional laptops needed.

- $(400 + x \geq 600)$.
- **Real-Life Example:** (x) can represent the number of missing devices in a classroom.
- **Fairness Example:** Variables help identify *what's missing* in fairness — the resources still needed for equality.

Greater Than ($>$)

- **Definition:** A symbol showing that one quantity is larger than another.
- **Math Examples:**
 - $(450 > 300) \rightarrow 450$ is greater than 300.
- **Real-Life Example:** One school's 450 devices are greater than another's 300.
- **Fairness Example:** "Greater than" can reveal resource imbalances — some schools have *more* than they need.

Less Than ($<$)

- **Definition:** A symbol showing that one quantity is smaller than another.
- **Math Examples:**
 - $(250 < 400) \rightarrow 250$ is less than 400.
- **Real-Life Example:** A rural school's 250 devices are less than the 400 needed for all students.
- **Fairness Example:** "Less than" shows which schools lack digital access — a key measure of inequity.

Greater Than or Equal To (\geq)

- **Definition:** A symbol meaning "at least" — one side is greater than or equal to the other.
- **Math Examples:**
 - $(300 + x \geq 500)$

- $(x \geq 200)$
- **Real-Life Example:** A district needs *at least* 500 tablets $\rightarrow (300 + x \geq 500)$.
- **Fairness Example:** “At least” ensures every student has what they need — not less — to learn equally.

Less Than or Equal To (\leq)

- **Definition:** A symbol meaning “no more than” — one side is less than or equal to the other.
- **Math Examples:**
 - $(x \leq 100) \rightarrow x$ can be 100 or smaller.
- **Real-Life Example:** A school’s technology budget can’t exceed 100 new laptops.
- **Fairness Example:** Limits like \leq remind us that funding can restrict equity efforts — highlighting where more investment is needed.

Solution of an Inequality

- **Definition:** The set of numbers that make an inequality true.
- **Math Examples:**
 - $(x \geq 150)$ means any value of x that is 150 or higher works.
- **Real-Life Example:** A school must get *at least* 150 laptops for every student to have one.
- **Fairness Example:** The solution shows how much action is needed to make learning opportunities fair.

Digital Divide

- **Definition:** The gap between groups that have access to technology and those who do not.
- **Math Examples:**
 - $(250 + x \geq 400)$ shows how many laptops are needed to close the divide.

- **Real-Life Example:** Urban schools often have more digital resources than rural ones.
- **Fairness Example:** Math makes invisible digital gaps *visible* — helping schools plan for fairness.

Modeling

- **Definition:** Using math to represent real-world situations.
- **Math Examples:**
 - Modeling technology access: $(\text{Current} + \text{New} \geq \text{Needed})$.
- **Real-Life Example:** Estimating how many tablets are needed for full access.
- **Fairness Example:** Modeling helps communities set realistic goals for equity.

Equity

- **Definition:** Fairness that ensures everyone has what they need to succeed — not just equal numbers, but equal opportunity.
- **Math Examples:**
 - $(x \geq 200) \rightarrow$ schools need at least 200 devices to achieve equity.
- **Real-Life Example:** Making sure each student has access to digital learning tools.
- **Fairness Example:** Equity means closing the technology gap so every learner can thrive.

Summary of Math + Fairness Connections

Concept	Math Focus	Fairness Connection
Inequality	Compares two amounts	Shows missing resources
\geq / \leq Symbols	Define limits or goals	Ensure every student has enough
Variable (x)	Represents what's unknown	Identifies the resources still needed
Solution Set	All numbers that work	Plans how to reach digital equity

Concept	Math Focus	Fairness Connection
Digital Divide	Difference in access	Reveals where fairness is lacking