

Grades

I use a system called Standards Based Grading. Your grade is based on mastery of individual learning targets, which Tennessee and HCDE specify and over which the EOC will test. The most recent score on a skills assessment is what is entered in Powerschool. You may retake an assessment only if you complete the assigned homework for that standard. Reassessments are usually done during directed studies. It works like this:

1. During the week in class, we cover skills X, Y, and Z during lessons and activities. Homework is assigned that is aligned with these particular skills.
2. The following Monday (usually), we will have an assessment that covers these (and other) skills. They are graded on a scale of 0-4 (outlined below). Each standard is scored separately, so there will be a score for X, a score for Y, a score for Z, and a score for W (an older standard being assessed again). These assessments may only be 7-8 problems long, though others may be longer.
3. If you score less than a 3, you are required to re-take that skill's assessment (in directed studies, before or after school). You only need to retake the parts of the assessment that you haven't mastered yet. If you score a 4 on a skill the first time it is assessed, but on an assessment a month later you score a 2 on that same standard, the grade in Powerschool will be a 2. It is then your responsibility to re-assess until you pass. Every standard will be assessed multiple times throughout the quarter.

Score	Grade in PS
4: Advanced (Complete understanding of the concept. Can apply this concept to situations beyond what is expected.)	96
3: Proficient (Understanding of the concept possibly with minor errors.)	86
2: Basic (Some understanding of the concept with major errors. Needs to remediate this concept.)	66
1: Below Basic (Does not have an understanding of this concept. Intense remediation is necessary.)	50
0: No attempt was made.	0

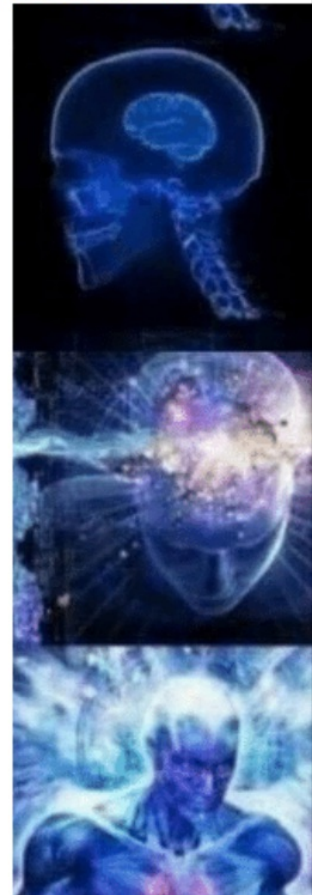
If a student scores a 4 on their first two assessments, s/he will receive a 5 (or 100) for that standard.

This seems like a more complicated system, but instead of a single test you have more opportunities to show mastery and it is you, not the teacher, who controls the grade. Bottom line: if you learn the material, your grades will show it. More info: <http://mgeo.weebly.com/sbg>

You can retake every grade in Powerschool
You only need to retake the particular section(s) you need to
You can retake skills multiple times if needed

You control your grade

Grades are locked and finalized 4pm, Oct 5



Visibly Random Grouping

Proof

Suppose this is true:

$$P \rightarrow Q$$

If a bobo is a doodad, then a bobo is a whipwap.

Rewrite this statement into the converse
inverse, and contrapositive.

$$Q \rightarrow P$$

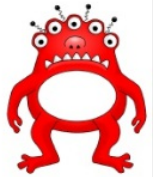
$$\sim P \rightarrow \sim Q$$

"Not P"

$$\sim Q \rightarrow \sim P$$



If a bobo is a doodad, then a bobo is whipwap.



Converse: $Q \rightarrow P$

If a bobo is a whipwap, then a bobo is a doodad.

False

Inverse: $\sim P \rightarrow \sim Q$

If a bobo is not a doodad, then a bobo is not a whipwap.

False

Contrapositive: $\sim Q \rightarrow \sim P$

If a bobo is not a whipwap, then a bobo is not a doodad.

True

Rewrite into the converse, inverse, and contrapositive.

THEN each as true or false (with counterexample if false)

If an angle measures 45° , then it is an acute angle.

Converse:

If it's an acute angle, then an angle measures 45° .

FALSE



Inverse:

If an angle is not 45° , then it is not an acute angle. FALSE

Contrapositive:

If an angle is not acute, then it does not measure 45°

TRUE

Can you think of a conditional statement where the converse is also true?

$P \rightarrow Q$ true
 $Q \rightarrow P$ true

Biconditional Statement
a ^{true} statement whose
converse is also
true.

ex:

If an angle is a right angle, then it measures 90° .

If an angle measures 90° , then it is a right angle.

Biconditional:

An angle is a right angle if and only if it measures 90°

Inductive vs Deductive Reasoning

Inductive reasoning: make observations, notice patterns, arrive at a conjecture (educated guess)

Deductive reasoning: start with premise/facts, use logic and accepted steps to arrive at a conclusion based on that premise

If your reasoning is valid, the conclusion is a theorem (proven fact)



The Transitive Property

$$\text{IF: } A \Rightarrow B$$

$$B \Rightarrow C$$

$$\text{THEN: } A \Rightarrow C$$

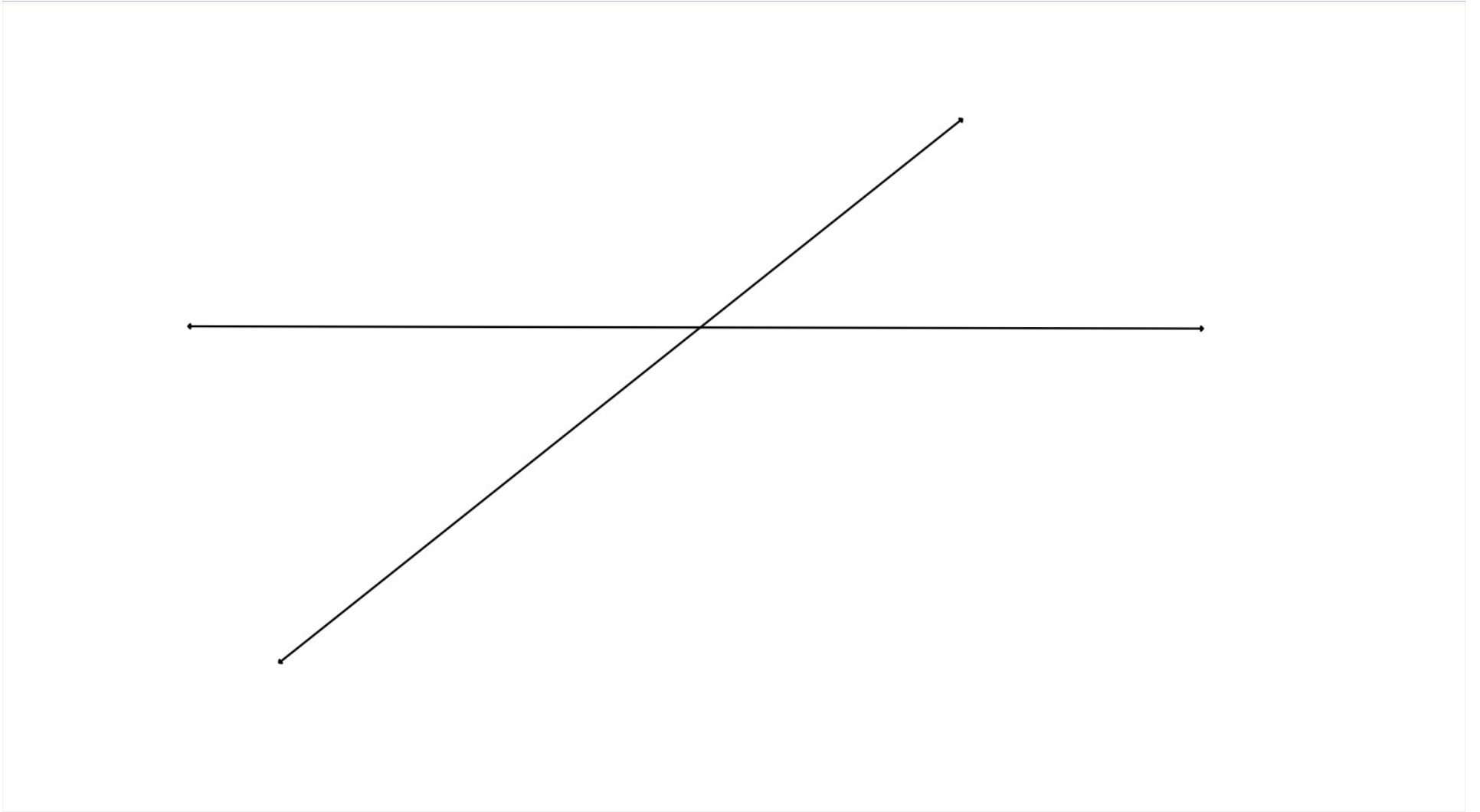
$$\begin{array}{l} x = 2 + 3 \\ 2 + 3 = 5 \end{array} \Rightarrow x = 5$$

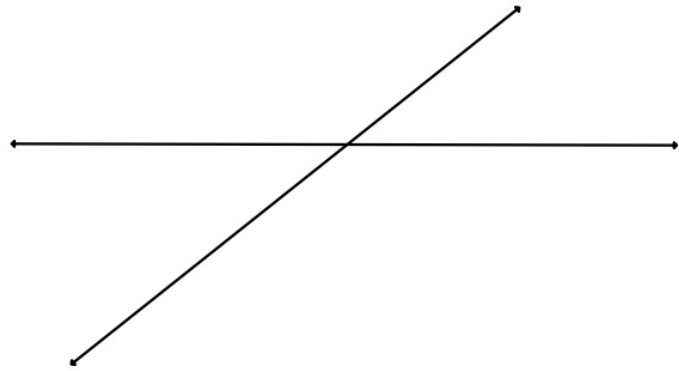
$$\begin{array}{l} 13 > 4 \\ 4 > 1 \end{array} \Rightarrow 13 > 1$$

"substitution"

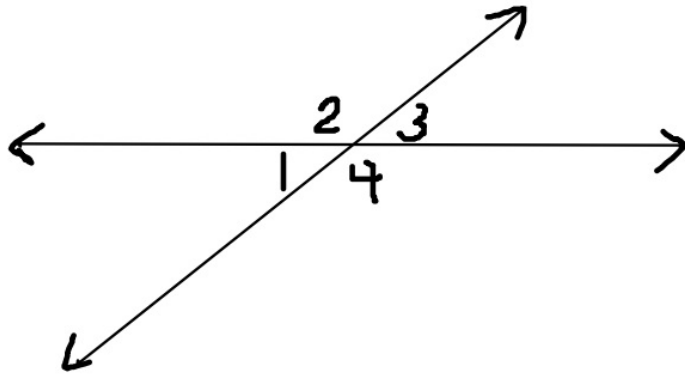
Equality, Inequality,
and Congruence are transitive



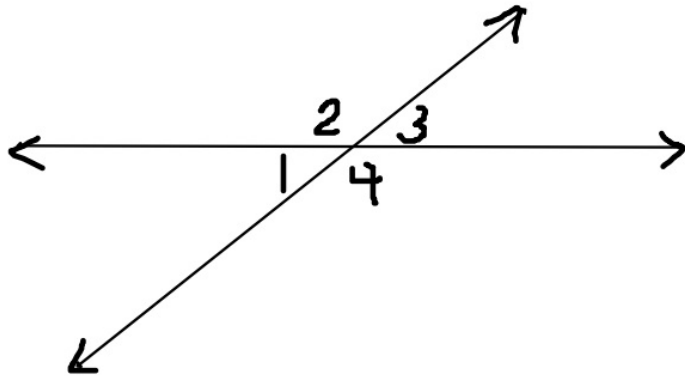




What do you notice?
What do you wonder?



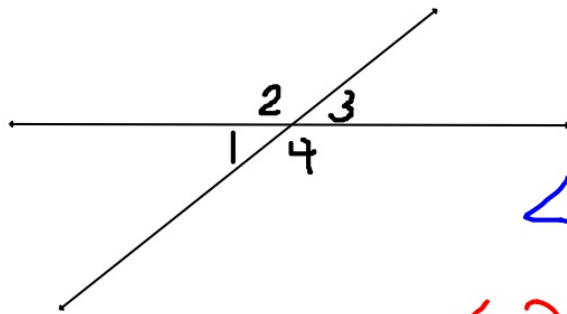
What do you notice?
What do you wonder?



Make a conjecture:

Conjecture: $\angle 1 \cong \angle 3$

my first geometry proof



Given: two intersecting lines, creating 4 angles

Prove: $\angle 1 \cong \angle 3$

$$\angle 1 + \angle 2 = 180^\circ \quad (\text{Supplementary; linear pair})$$

$$\angle 2 + \angle 3 = 180^\circ \quad (\text{" "})$$

$$\begin{array}{r} \angle 1 + \cancel{\angle 2} = \cancel{\angle 2} + \angle 3 \\ - \cancel{\angle 2} \quad - \cancel{\angle 2} \quad (\text{subtract}) \end{array} \quad (\text{transitive property})$$

$$\angle 1 = \angle 3$$

Vertical Angles Theorem

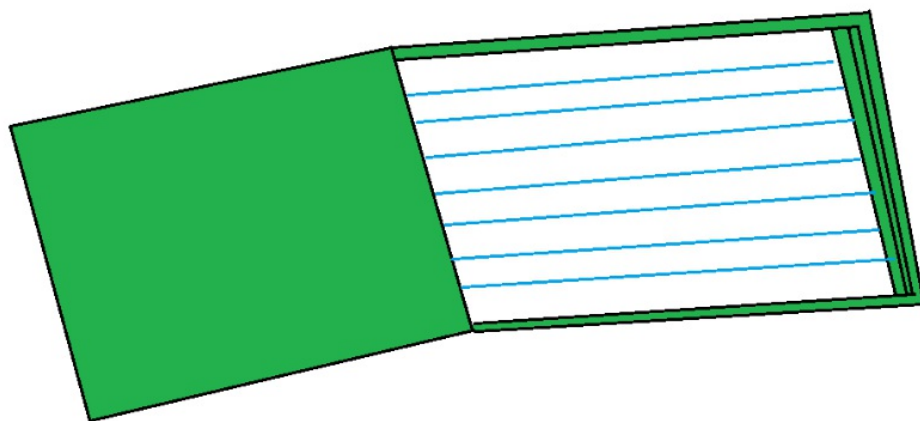
If two angles are vertical, then they are \cong .

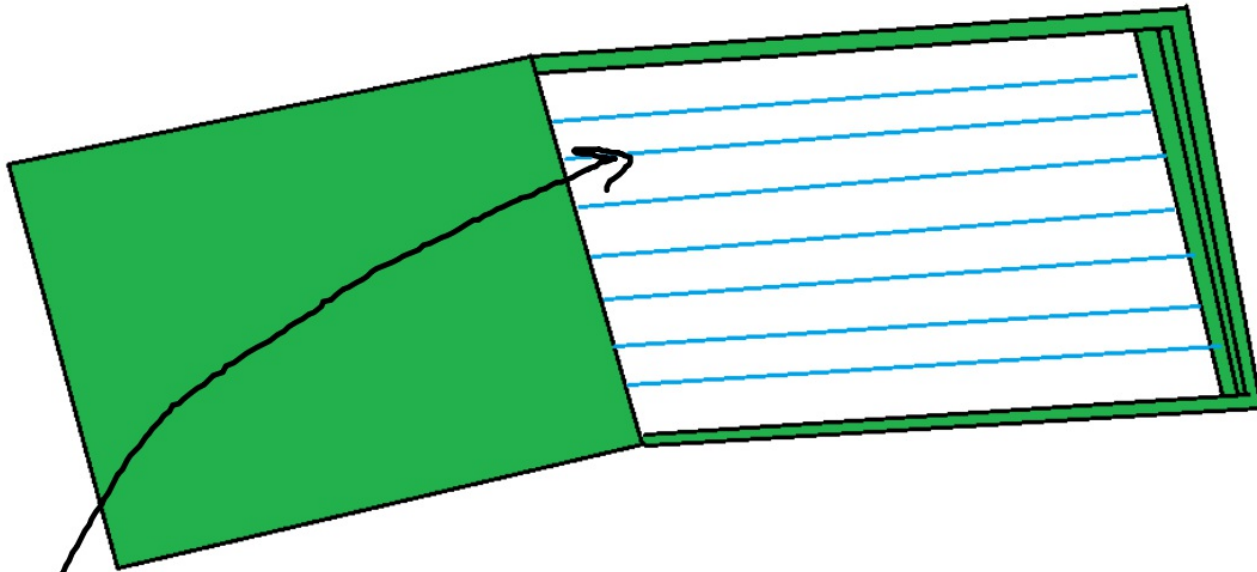
Construct a Theorems Booklet

Send one person per group to back table to pick up:

- one green page per person
- three notebook pages per person

Others: Make sure you have a working stapler + markers





Vertical Angles Theorem

If two angles are vertical angles, then they are congruent

PROVED: Sept 19, 2017

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