

Math 8

Mr. Ricks room 410



Areas of study:

Semester 1

- › Identify numbers that are not rational; which are the set (family) of **irrational numbers**.
- › Develop the skill to **approximate the value of irrational numbers** using rational numbers.
- › Interpret numbers involving integer and radical **exponents**.
- › Develop **connections** between: 1) proportional relationships, 2) lines, and 3) linear equations.
- › Analyze and **solve** linear equations.
- › Define, evaluate, and compare **linear functions**.
- › Realize functions can model **relationships** between quantities (real-life situations; traditionally, called word problems)

Areas of study:

Semester 2

- › Analyze/Solve **simultaneous** linear equations for an outcome of: **one solution, no solution or infinite solutions**.
- › Develop understanding of **congruence and similarity** using transformations involving physical models, transparencies, or geometry software.
- › Infer/Apply the **Pythagorean Theorem**.
- › **Solve** problems involving volume of **cylinders, cones, and spheres**.
- › Investigate **patterns** of association from bivariate data (a study in statistics).

8 mathematical practices that drive instruction:

1. **Make sense** of problems **and persevere** in solving them.
2. **Reason** abstractly and quantitatively.
3. **Construct** viable **arguments** and critique the reasoning of others.
4. **Model** with mathematics.
5. **Use** appropriate **tools** strategically.
6. **Attend to precision**.
7. **Look for** and make use of **structure**.
8. **Look for** and express **regularity** in repeated reasoning.

Grading Categories:

Category		Percentage
Formal Assessment: One per chapter (one retake per assessment)	25 pts each	45%
Skill Based Assessment: Approximately each Monday (<u>MUST</u> show <u>most recent</u> attempt for retake; unlimited attempts for passing until 2 weeks before semester ends)	Pass/Fail	30%
Group Performance Task: Before each Formal Assessment (group decides which <u>one</u> to provide-each individual may retake once demonstrating corrections to their original)	10 pts each	15%
TVUSD Summative Assessment: Semester Final (no retake)	100 pts	10%
		100%

Practice problems (homework)

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- **Not** part of grade. Why?
 - **Unproductive** to assign work that is: understood, solved mentally, repetitive/redundant, can be copied or an effort that “**looks**” done.
 - Allows focused effort toward areas of weakness **versus** repetitive demonstration of “I know **THIS . . .**”
 - Student takes responsibility of managing their personal success level: **intrinsic motivation**.
- A minimal effort of problems are suggested from the first two pages of “Independent Practice” (posted in Google Classroom Calendar).
- Suggested pages are in **Google Classroom “Calendar”** and **all** solutions are posted in **Google Classroom “Independent practice”**.
- Lastly, student **MUST** be self advocating for seeking help.

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Looking ahead toward high school math pathways. . .

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	9 th Grade	10 th Grade		11 th Grade		12 th Grade
Traditional Pathway	Algebra I	Geometry	Decision Point	Algebra II	Decision Point	Trig/Prob Stats, Modern Math, Math 90, Math 96, Math 105/Math 110, Pre-Calculus, IB Math Studies AP Stats, Business Math
				Math 90	DP	Algebra II, Math 96, Business Math
Accelerated Pathway	Geometry	Algebra II	Decision Point	Pre-Calculus Math 105 / Math 110 Trig / Prob Stats		AP Calculus AB, IB Math Studies, AP Statistics Math 105 / Math 110, Pre-Calc, AP Statistics, Modern Math
		Algebra II+	DP	Accelerated Pre-Calculus (Pre-Calc B/AP Calc AB-A)		AP Calc AB/AP Calc BC, IB Math SL
Compacted Pathway	Algebra II	Pre-Calculus		AP Calculus AB Math 105 / Math 110		AP Calculus BC, IB Math Studies, AP Statistics, Modern Math
	Algebra II+	Accelerated Pre-Calculus (Pre-Calc B/AP Calc AB-A)		AP Stats AP Calc AB/AP Calc BC IB Math SL		Calculus D, Differential Equations, IB HL 2, AP Statistics
SpEd Support Pathway	Pre Algebra Concepts	Algebra I Ext AB		Algebra I Ext CD		Geometry, Math 90 Consumer/Business Math
	Algebra I Ext AB	Algebra I Ext CD	Decision Point	Geometry Math 90		Algebra II Math 96 Consumer/Business Math
	Algebra I Ext AB	Algebra I	Decision Point	Geometry Math 90		Algebra II, Math 96 Consumer/Business Math Math 90, Math 96

Classroom Norms

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- › Provide explanations and justifications with solutions.
- › Make sense of classmate's solutions.
- › Communicate when you don't understand or don't agree.

Any questions?

