Algebra II   2018-2019
Beaverhead County High School
Instructor - Ms. Gentry

Common Core Mathematical Practices:
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.

During this course students will:

Interpret the structure of expressions (A-SSE 1-2)(these are the common core standards)

Write expressions in equivalent forms to solve problems (A-SSE 3-4)

Perform arithmetic operations on polynomials (A-APR 1)

Understand the relationship between zeros and factors of polynomials (A-APR 2-3)

Use polynomial identities to solve problems (A-APR 4-5)

Rewrite rational expressions (A-APR 6-7)

Create equations that describe numbers and relationships (A-CED 1-4)

Understand solving equations as a process of reasoning and explain the reasoning (A-REI 1-2)

Solve equations and inequalities in one variable (A-REI 3,4)

Solve systems of equations (A-REI 6-9)

Represent and solve equations and inequalities graphically (A-REI 10-12)

Understand the concept of a function and use function notation (F-IF 1-3)

Interpret functions that arise in applications in terms of the context (F-IF 4-6)

Analyze functions using different representations (F-IF 7-9)

Build a function that models a relationship between two quantities (F-BF 1-2)

Build new functions from existing functions (F-BF 3-5)

Construct and compare linear, quadratic, and exponential models and solve problems (F-LE 1-4)

Interpret expressions for functions in terms of the situation they model (F-LE 5)

Extend the domain of trigonometric functions using the unit circle (F-TF 1-4)

Model periodic phenomena with trigonometric functions (F-TF 5-7)

Prove and apply trigonometric identities (F-TF 8)

Define trigonometric ratios and solve problems involving right triangles (G-SRT 6-8)

Apply trigonometry to general triangles (G-SRT 9-11)

Translate between the geometric description and the equation for a conic section (G-GPE 1-3)

Summarize, represent, and interpret data on a single count or measurement variable (S-ID 1-4)

Summarize, represent, and interpret data on two categorical and quantitative variables (S-ID 5-6)

Interpret linear models (S-ID 7-9)

Understand and evaluate random processes underlying statistical experiments (S-IC 1-2)

Make inferences and justify conclusions from sample surveys, experiments & observational studies (S-IC 3-5)

Understand independence and conditional probability and use them to interpret data (S-CP 1-5)

Use probability rules to compute probabilities of compound events in a uniform probability model(S-CP 6-9)

Calculate expected values and use them to solve problems (S-MD 1-4)

Use probability to evaluate outcomes of decisions (S-MD 5-7)

Extend the properties of exponents to rational exponents (N-RN 1-2)

Reason quantitatively and use units to solve problems (N-Q 1-3)

Perform arithmetic operations with complex numbers (N-CN 1-3)

Represent complex numbers and their operations on the complex plane (N-CN 4-6)

Use complex numbers in polynomial identities and equations (N-CN 7-9)

Represent and model with vector quantities (N-VM 1-3)

Perform operations on vectors (N-VM 4-5)

Perform operation on matrices and use matrices in applications (N-VM 6-12)

Extra Help:

Students can arrange to see me for extra help after school, during lunch or during my prep time when I am not in meetings.

There are at least two computer resources available to students: classzone.com goes with our book and also hotmath.com which our school subscribes to. The password for the hotmath site is MDR185

Grading:

Total points system

Typically 10 points/homework assignment (3-5 times/week) adding up to approximately 40% of the total points/quarter

Projects—includes question of the day and a variety of other hands-on activities. Approximately 10%

Quizzes/Tests—approximately 40%

Positive Participation – about 10% (participation in class discussions, using class time wisely, coming prepared, etc,)

Extra Credit: about 10-15 points/quarter. *Additional extra credit will NOT be given to make up for poor/missing grades.

We will be using the Geogebra program – available to download for free. Students MUST have their handbook forms turned in before using school computers. Please be sure to get these forms turned in promptly.

Late assignments:

Students are expected to complete and turn in their homework on time. Late assignments will receive **at most** half credit.

Students with excused absences will be allowed the allotted time to complete a missing assignment as described in the student handbook. Missing work: Question of the day **cannot** be made up, other work can until a date given by me—typically a few days before the end of the qtr.

Required Supplies:

Pencils - to be used for homework and tests – pens for correcting only

Paper (Perforated is preferred)

Calculator: We will be using graphing calculators (TI – 84 plus) daily. I have them available for in class use only. It is highly recommended to purchase one for at home and future use.

A notebook designated for math class

Classroom Rules (these are in addition to the student handbook):

B *e Responsible*

    Follow rules as outlined in handbook

    Request and return makeup work in timely fashion

    Head papers correctly

    Ask permission to leave the room & take the hall pass

    Keep aisles clear

    Use class time wisely

    Return classroom supplies to proper location and in good condition

C *ome Prepared*

    Arrive on time

    Have a positive attitude ~ ready to learn

    Use restroom, sharpen pencils, etc. between classes when possible.

    Bring supplies: sharpened pencil, paper, book, etc.

H *ave Good Character*

    Encourage your classmates

    Be polite

    Listen and participate

    Take ownership for actions

    Do your own work ~ remember *learning* is the goal

S *how Respect*

    Enter and exit room quietly

    Be in assigned seat working on ? of the day as soon as the 2nd bell rings

    Raise hand to ask/answer questions

    Sit properly *in* desks

    Keep items from going airborne

    Remain seated until the bell rings ~ teacher dismisses class

Consequences

* The "Look"

* Quiet talk with teacher

* Hall talk with teacher

* New seating assignment

* Stay after class/school

* Sweep after class or school   *for throwing/tossing

* Call to parents

* Office referral- minor or major

* Office visit during class (0 for the day)

Remember the 8 keys of excellence
bound together by the ring of respect!
➤ *Integrity* ➤ *Failure Leads to Success*
➤ *Speak with Good Purpose* ➤ *Commitment* ➤ *This is It!*
➤ *Ownership* ➤ *Flexibility* ➤ *Balance*