

Calculus Topics:

Chapter 2

- Finding limits algebraically
- Properties of limits and one-sided vs two-sided limits
- Limit definition of horizontal & vertical asymptotes and end behavior models
- Continuity – definition & types of discontinuities

Chapter 3

- Limit definition of derivative
- Tangent and Normal to a curve
- Relationships between f , f' , f''
- Differentiability
- Derivative rules: power rule, constant multiple rule, sum & difference rule, product rule, quotient rule, chain rule, trig functions, exponential and logarithmic functions
- Position, velocity, acceleration relationships

Chapter 4

- First Derivative Test & Finding Extreme Values
- Second derivative test & Concavity & points of inflection
- Optimization (yippee!)
- Related Rates

Chapter 5

- Definition of a definite integral as a limit of Riemann Sums
- Area under a curve

Chapter 6

- Integral Formulas
- Integration by Substitution with both definite and indefinite integrals
- Integration by Parts

Chapter 7

- Area between curves (include integration with respect to x and y – using horizontal and vertical rectangles)
- Volumes of revolution – discs
- Volumes of revolution – washers

Calculus – Review of Concepts for Year-End Final

1. Sign up for a topic in posted Google Doc (no duplicates – no deleting)
2. Upload your completed project to the youtube channel MSHS Math
3. You will be required to post a meaningful comment or question on each video submission

Basic Requirements:

- ~ 5 minutes
- Basic review of chosen concept
- At least one example of each type of question that could be asked regarding this topic.

Total points possible: 30

Maximum for static presentation (Prezzi, PowerPoint, poster, etc.) – up to 25/30 points

Maximum for animated presentation (Jing, Screencast-o-matic, Educreations, etc.) – up to 30/30 points

Teacher Rubric:

	Points Possible	Score	Explanation
Meets Requirements	5		
Usefulness	5		
Accuracy	5		
Animation	5		
Peer Ratings	10		

Peer Rubric:

	Points Possible	Average Score
Accuracy	3	
Creativity	3	
Usefulness	4	
Top Pick		+2