

Algebra 2 Exam Review

Chapters 4, 5, 9,10

Exam

- Bring Calculator, pen or pencil
- I will have scrap
- 46 Questions: 100 points

Chapter 4

- #1-3) Graph Exponential, Domain, Range
- #4) e
- #5-7) Simplify e
- #8) Compound Continuously
- #9-11) Graph \log s and \ln s
- #12-15) Properties of \log s
- #16-20) Solve Exponential and \log s

Chapter 5

- #21) Inverse Variation
- #22-24) Graph: VA, HA
- #25-29) Add, Subt, Mult, Divide
- #30-31) Solve
- #32) Odd/even

Chapter 9

- #33-34) evaluate 6 trig functions
- #35-36) Trig function of Special Angle
- #37-38) Solve for Angle (Inverse)
- #39-40) Solve for missing sides and angles

- Law of Sines and Law of Cosines on test

Chapter 10

- #41-42 Graph
- #43-44 Simplify with Identities
- #45 Solve Equation
- #46 Use Sum/Difference Formula

Ch 4: Exponential and Logarithmic Functions

- **Graph Exponential:** (make x/y chart)
 - Ex: $y = 2^x$
 - List Domain: all real
 - List Range: Asymptote (Horizontal)
 - Value of e
- **Simplify with e :**
 - Ex: $e^{2x} e^{4x} = e^{6x}$
- **Interest:** Compounded Continuously: $A = P e^{rt}$

- **Graph logarithmic functions:**
 - Ex: $y = \log_2 x$ (make x/y chart)
 - List Domain: asymptote (vertical)
 - List Range: all real
- **Evaluate logs**
- **Expand logs (properties)**
- **Condense logs**
- **Change of Base**
- **Solve Exponential and log Equations:**
 - Use logs/ change form

Ch 5: Rational Functions

- **Graph Functions:**
 - List Asymptotes
- **Perform Operations:**
 - Add
 - Subtract
 - Multiply
 - Divide
- **Solve.**

Ch. 9 Trig Ratios and Functions

- **Evaluate 6 trig functions**
 - Given picture
 - Given one trig functions
- **Solve ΔABC for missing angle and side**
- **Solve for the angle θ**
- **Use Law of Sines**
- **Use Law of Cosines**

Ch. 10 Trig Graphs, Identities, Equations

- Graph Trig Functions:
 - Amplitude: a
 - Period: $\frac{2\pi}{b}$ or $\frac{\pi}{b}$
- Know Identities; especially Pythagorean
- Solve for x (angle measure)
- Apply Sum/Difference Formula