Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_\_

Algebra 2 Honor Spiral 25 - Review

|  |  |  |
| --- | --- | --- |
| Exponential and Logarithmic Functions - Graphs | | |
| Graph the Exponential function. Include at least three points and identify any asymptotes       |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | |  |  | | --- | --- | | x | y | |  |  | |  |  | |  |  | |  |  | |  |  | | | | |
| Logarithm Basics | | |
| 12. Convert Each Exponential to Log form (don’t solve) | 13. Evaluate Each Logarithm | |
| Exponential and Logarithmic Equations and Models:  A=P(1+r)n, A=P(1+r/n)nt, A=Pert | | |
| 14. Solve each equation: | 15. Write an equation to fit each model and use it to answer the question.  Mr. Powers bought his house for $216,000 in 1985. The value of the house increased by approximately 2% each year until 2008. From 2008 to 2012 the house depreciated (lost value) by 8% each year. How much was his house worth in 2012?  Equations:  Value:  Follow up: If his house is now worth $300,000 what has been the average annual percentage increase since 2012? | |
| Right Triangle Trigonometry | | |
| Given  , find  .  Given  , find  .  Given  , find  . | | The sun is at an angle of elevation of 58**°.** A tree casts a shadow 20 meters long on the ground. How tall is the tree?  A person starts out 17 miles from the base of a tall mountain, and looks up at a 4° angle of elevation to the top of the mountain. When they move 12 miles closer to the base of the mountain, what will be their angle of elevation when they look to the top? |
| Law of Sines and Law of Cosines | | |
| Find the indicated measurement (or two measurements if two triangles are possible). Round your answer to the nearest tenth. | | |
|  |  | |
| Solve the triangle(s). Round your answers to the nearest tenth. | | |
|  |  | |