Name: _____Date: _____

Pythagoras Introduction Homework

Directions: Answer the following in complete sentences and show all work on a SEPARATE SHEET OF NOTEBOOK PAPER. If you need to refer to the story, please see my website for a link to listen or re-read.

1) Why didn't anyone in the town want to listen to Pythagoras's ideas at the beginning of the story?

2) Summarize how Pythagoras discovered his theorem for right triangles. Think of what he did when he traveled with his father.

3) What motive was there for Pythagoras to try and understand the builder Nef's rope? Think of what he would later use it for.

4) Do you agree with the actions of Pythagoras's father at the beginning of the story when he would not take his son's advice? Consider what he would've been risking.

5) What is the equation that Pythagoras discovered?

6) Between which two whole numbers is $\sqrt{79}$?

7) Convert the following repeating decimal to a fraction: 0.55555…

8) During a presentation at the Planetarium, Isaac learned that the average distance between Earth and the sun is approximately 9.3×10^7 miles. What is the average distance between Earth and the sun in standard form?

9) Solve for x: -3(2x +1) + 3x = 6x + 3

10) In 2012, with approximately 8.1×10^6 people, New York City is the most populous city in the United States. Los Angeles, California, is the second most populous city in the United States, with about 3.8×10^6 people. Approximately, what is the population of the two most populous cities in the United States combined?

11) What are the slope and y-intercept of the line -3.5x + y = 8?

12) What is an example of an equation of a nonlinear function?

13) Draw 3 examples of linear functions.

14) What test can you use to determine if a graph is a function?