Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chem R Pd. \_\_\_\_ Measurement HW

Directions: Visit the website <http://www.bozemanscience.com/significant-digits>, and watch the podcast. Answer the questions that follow. Remember, the great thing about You Tube is that you can pause and rewind if you need help ☺

1) How are accuracy and precision different? Be sure to mention both in your answer.

2) What determines how precise a measurement we make in class is?

3) What are significant figures?

4) Use the following rules to determine the number of “sig figs” in the following measurements.

|  |  |
| --- | --- |
| Significant | NOT Significant |
| -all non-zeroes  -final zeroes after decimal point  -sandwiched zeroes  -all numbers in scientific notation | -place-holding zeroes |

a) 123 b) 46.0 c) 703 d) 6.23 x 1023

e) 620.087 f) 0.036 g) 3110 h) 10,010

5) Remember – when doing a calculation, your answer can’t have more “sig figs” than the number in the problem with the least number of sig figs. If a cheetah can run 40.0 meters in 2.0 seconds, what is its speed. (Speed = Distance / Time, round your answer to the correct number of sig figs).