**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**M8-U6: HW #4 – Scientific Notation Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Is each number written in scientific notation? If not, give a reason why it is not.**

**1.** A horse-chestnut has a diameter of about  cm.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.** The approximate wavelength of infrared light is  meter.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3.** Neptune is about  km from the sun.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4.** A football field (excluding end zones) is  yards long.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Writing a Number in Scientific Notation:**

**5.** 456,000 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **6.** 0.0000563 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7.** 00.0045032 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **8.** 98,760,000 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Writing a Number in Standard Form:**

**9.**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **10.**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**11.**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **12.**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Spiral:**

**13.** Write  as an equivalent fraction: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tell whether each statement is correct. Show work to support your answer.

**14.** ** 15. **

**Rewrite each item as an equivalent expression in exponential notation.**

**16.** ** 17. **

**18.** Solve the following equation: 