

HW 1.3

Name: _____ Per: _____

1.) Express each of the following measurements in scientific notation.

a. speed of light in a vacuum, 299 792 458 m/s

b. number of seconds in a day, 86 400 s

c. mean radius of Earth, 6378 km

d. density of oxygen gas at 0°C and pressure of 101 kPa, 0.001 42 g/mL

e. radius of an argon atom, 0.000 000 000 098 m

2.) What is 0.000058 written in scientific notation?

- A. 5.8×10^{-6}
- B. 5.8×10^{-5}
- C. 5.8×10^5
- D. 5.8×10^6

3.) What is 6.92×10^{-3} written in standard form?

- A. 0.000692
- B. 0.00692
- C. 0.0692
- D. 0.692

4.) The length of the Amazon River in South America is 6,400 kilometers. What is the length written in scientific notation?

- A. 6.4×10^2 km
- B. 6.4×10^3 km
- C. 6.4×10^4 km
- D. 6.4×10^5 km

5.) A virus is viewed under a microscope. Its diameter is 0.0000002 meter. How would this length be expressed in scientific notation?

- A. 2×10^{-7} m
- B. 2×10^{-6} m
- C. 2×10^6 m
- D. 2×10^7 m

6.) $2.5 \times 10^4 - 1.5 \times 10^3 =$

- A. 1×10^1
- B. 1×10^7
- C. 2.35×10^4
- D. 2.35×10^7

7.) Order the following numbers from least to greatest:

$$4.5, 3\frac{5}{6}, \sqrt{16}, \frac{8}{3}, 2\pi$$

8.) Order the following numbers from greatest to least:

$$4.8, \sqrt{17}, -\sqrt{8}, -4.2, \sqrt{25}$$

9.)

Which numbers from this list are less than -0.94 ?

$$-\frac{15}{16}, 0.24, -2.23, 97\%, -2\frac{2}{5}, -0.95$$

F $-\frac{15}{16}, -2.23,$ and -0.95

G $-2.23, -2\frac{2}{5},$ and -0.95

H $0.24, -\frac{15}{16},$ and -0.95

J $-\frac{15}{16}, 0.24,$ and -2.23