

Name _____
Physics _____
Period _____



Date _____
Measure & Math WS #2H
Mrs. Nadworny

Scientific Notation & Order of Magnitude

Directions: Read online textbook pages 10 – 14 & 22 – 25 and solve the following problems using correct scientific notation and dimensional analysis.

- Which is a fundamental unit?
A) Watt B) Volt **C) kilogram** D) Newton
- Which is a derived unit?
A) meter B) second C) gram **D) meter per second**
- Which is NOT a derived unit?
A) **kilogram** B) Joule C) Newton D) Tesla
- Which unit contains a prefix?
A) **millimeter** B) second C) gram D) Kelvin
- Convert the following values in proper

	... scientific notation.	... order of magnitude.
a. 84,000 m	8.4×10^4 m	10^5
b. .000815 s	8.15×10^{-4} s	10^{-3}
c. 26×10^4 m/s	2.6×10^5 m/s	10^5

- What is the approximate width of a person's little finger?
(A) 10^0 m (B) 10^{-1} m **(C) 10^{-2} m** (D) 10^{-3} m
- A high school physics student is sitting in a seat reading this question. The magnitude of the force with which the seat is pushing up on the student to support him is closest to
(A) 0 N (B) 60 N **(C) 600 N** (D) 6,000 N
- What is the approximate mass of an automobile
(A) 10^1 kg (B) 10^2 kg **(C) 10^3 kg** (D) 10^4 kg
- Which measurement is closest to 1×10^{-2} meter?
(A) diameter of an atom
(B) width of a student's finger
(C) length of a football field
(D) height of a school teacher

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10. The diameter of an automobile tire is closest to

- (A) 10^{-2} m (B) 10^0 m (C) 10^1 m (D) 10^2 m

11. The weight of a typical high school physics student is closest to

- (A) 1500 N (B) 600 N (C) 120 N (D) 60 N

12. The weight of a chicken egg is most nearly equal to

- (A) 10^{-3} N (B) 10^{-2} N (C) 10^0 N (D) 10^2 N

13. The diameter of a United States penny is closest to

- (A) 10^0 m (B) 10^{-1} m (C) 10^{-2} m (D) 10^{-3} m

14. The length of a dollar bill is approximately

- (A) 1.5×10^{-2} m (B) 1.5×10^{-1} m (C) 1.5×10^1 m (D) 1.5×10^2 m

15. What is the approximate diameter of an inflated basketball?

- (A) 2×10^{-2} m (B) 2×10^{-1} m (C) 2×10^0 m (D) 2×10^1 m

16. The height of a 30 story building is approximately

- (A) 10^0 m (B) 10^1 m (C) 10^2 m (D) 10^3 m

17. The approximate length of an unsharpened No. 2 pencil is

- (A) 2×10^{-2} m (B) 2×10^{-1} m (C) 2×10^0 m (D) 2×10^1 m