

Name _____

Date _____

Intro 1

1. Significant figures

A. How many significant figures are in the following measurements?

i. 330,000,000 m·s⁻¹

ii. 22.22 °C

iii. 0.0276 °C

iv. .004 J

v. .5050 MHz

vi. 3.008 s

vii. 0.0002 mm

2. Units

A. Fill in the chart below for the prefixes:

Power	Prefix	Abbreviation	Sample object of similar size
10 ¹²			
10 ⁹			
10 ⁶			
10 ³			
10 ¹	m	meter	
10 ⁻²	cm	centi	
10 ⁻³			
10 ⁻⁶			
10 ⁻⁹			

3. Prefixes

A. Convert each of the following to the units requested. Do not forget to use the correct symbol.

1 millimeter expressed in meters _____

17 grams expressed in micrograms _____

0.65 kilometers expressed in centimeters _____

0.5 milligrams expressed in grams _____

468 micrometers expressed in centimeters _____

2 hours 10 minutes expressed in seconds _____

4. Which one of the following contains three fundamental units? If you have never seen the unit before, research it to find the answer.

A.	Metre	Kilogram	Coulomb
B.	Second	Ampere	Newton
C.	Kilogram	Ampere	Kelvin
D.	Kelvin	Coulomb	Second

5. Which of the following is the best estimate, to one significant digit, of the quantity shown below?

$$\frac{\pi \times 8.1}{\sqrt{15.9}}$$

A. 1.5

B. 2.0

C. 5.8

D. 6.0