

***Measurements***

1. Identify an object or event that is on the scale of each of these fundamental measurements.
   1. 10-1 s, 1 s, 101 s, 102 s, 105 s, 107 s
   2. 10-1 m, 1 m, 101 m, 102 m, 103 m, 104 m, 105 m
   3. 10-1 kg, 1 kg, 101 kg, 102 kg, 103 kg, 104 kg, 105 kg
2. Convert the following to MKS units.
   1. 50 g
   2. 5.0 g/cm3
   3. 100 km/h

***Uncertainty***

1. What is the best way to minimize systematic uncertainties?
2. What is the best way to minimize the impact of random uncertainties?
3. Add 5.75 +/- 0.15 to 3.50 +/-0.10.
4. What is the percent uncertainty in the measurement 2.54 +/- 0.12 m?
5. What is the absolute uncertainty of the result of multiplying 12.0+/- 1.2 and 4.00+/- 0.10
6. Sketch a graph, and include two end points with uncertainty that would produce a slope of 3.5 +/- 0.5 m/s.