

◆ SUMMARY ◆

We have discussed physics as a collective human activity that involves observing diverse phenomena in the natural world and trying to figure out the rules that govern their behavior. In practice, observation generally means *measurement*. Measurements are always made in comparison to carefully defined standards called *units of measurement*. Values of physical **quantities**, things like time duration and mass, which may have numerical values, must be expressed in terms of such units; it matters whether you tell your friend you will meet her in 2 minutes or 2 weeks. In physics, we ordinarily express values in **SI units** (see Table 1-1), but sometimes we need to convert from other units. See **Procedure 1-1** for converting units.

In writing numerical values, you need to be aware of the number of significant figures (e.g., 5×10^3 has one, 5.000×10^3 has four). You cannot claim greater accuracy (more significant figures) for your result than for the measurements from which it came.

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