Apago PDF Enhancer 1 Image copyright Stephen Inglis.Cengage Learning reserves the right to remove additional content at any time if subsequent rights restrictions require it.1.1 Standards of Length, Mass, and Time 1.2 The Building Blocks of Matter 1.3 Dimensional Analysis 1.4 Uncertainty in Measurement and Significant Figures 1.5 Conversion of Units 1.6 Estimates and Order-of- Magnitude Calculations 1.7 Coordinate Systems 1.8 Trigonometry 1.9 Problem-Solving Strategy Introduction 1 ser62060_01_c01_p001-024.indd 1 8/17/10 2:16 PM Copyright 2010 Cengage Learning.The basic laws of physics involve such physical quantities as force, velocity, volume, and acceleration, all of which can be described in terms of more fundamental quantities.If our fundamental unit of length is defined to be 1.0 meter, for example, and someone familiar with our system of measure- ment reports that a wall is 2.0 meters high, we know that the height of the wall is twice the fundamental unit of length.Editorial review has deemed that any suppressed content does not materially affect the overall learning experience.If the predictions turn out to correspond closely to what is actually observed, then the theory stands, although it remains provisional.In mechanics, it is conventional to use the quantities of length (L), mass (M), and time (T); all other physical quantities can be constructed from these three.Due to electronic rights, some third party content may be suppressed from the eBook and/or eChapter(s).All .Rights Reserved