Musicians play together either in bands or in orchestras. A band usually has three groupings of instrumentalists: *woodwinds* (reed instruments), *brass* (cornet, baritone, French horn, trombone, and other such instruments), and *percussion* (drums, **cymbals**, **bells**, gongs, etc.). An orchestra adds to these the *stringed* instruments, which include *violin*, *viola*, *cello*, *bass viol*, and any other stringed instrument. A master in the musical arts, especially a composer, a conductor, or a teacher of music is often called *maestro*, which means *master*. A contemporary musical phenomenon is the advent of rock music of various kinds, *acid rock*, *hard rock*, *soft rock*, and *country rock*, *rap and hip-hop*. A basic distinction of these performers and performances is the addition of electronic amplification devices. A multitude of other musical facets including contemporary musical phenomena have not been discussed here. Can you make a list of musical terms that are of particular interest to you in addition to those mentioned?

Fill in the blanks.

Day 4

1.72 When inanimate objects are spoken of as if they were human we are using _____.

1.73 A type or classification of writing in literature is called _____.

1.74 The main character is the _____.

1.75 The terms *mezzo soprano* and *contralto* refer to _____.

1.76 A *maestro* is a _____.

Mathematicians. Mathematics, the use of numbers and their operations, touches every area of life. Measurements are more exact now than they were in Biblical times, but recent surveys indicate that many of our "measures" today are anything but "... pressed down, and shaken together, and running over ..." as suggested in Luke 6:38. Most of the words first used in measurement related to man's body. A *cubit* was the distance from the elbow to the tip of a man's longest finger, or approximately eighteen inches. A *span* was the distance between the end of the thumb and the end of the little finger with fingers spread, about nine inches, or half a cubit. The *foot* was measured as the length of a man's foot, and the Romans decided that an inch was the breadth of a man's thumb. Longer distances were arrived at by combining Persian, Chaldean, and Egyptian measures. The *mile* was a thousand *paces* or double steps, which measured approximately five thousand feet, not far from our statute mile of 5,280 feet. King Henry I of England decreed that a *yard* was the distance from the tip of his nose to the end of his outstretched thumb, a measurement that seamstresses today still use for quickly measuring cloth.

In this country, mathematics has undergone a severe shock. Modern mathematics has become a controversial subject. Some educators have turned their backs on teaching that 12 times 12 is still 144, or a *gross*. A generation of school children is now having difficulty balancing a checkbook. A second blow shook many Americans as a result of the passage of the Metric Conversion Act on August 18, 1972. Because the metric system is structured on multiples of ten, mathematics and the metric system have something in common. The United States is the last major country in the world to adopt the metric system of measures and has not yet made a total conversion.

An *International System of Units*, called SI for Systeme International, is *metric* in nature; that is, it is based on the *decimal*. It uses multiples and submultiples of six basic units of measure to define all other measures. They are (1) *meter* for length, (2) *kilogram* for mass, (3) *second* for time, (4) degree *Celsius* for temperature change, (5) *ampere* for electric current, and (6) *candela* for luminous intensity.

The metric system is easy to comprehend. Since one hundred *centimeters* make a meter, a meter is said to be a *multiple* of a centimeter. One meter, then, is equal to 102 centimeters. A centimeter is also a submultiple or division of a meter; one centimeter is one hundredth (0.01) of a meter or 10^{-2}. The negative exponent indicates a fraction. *Ten* to a power is used to indicate the "multiplication factor" in multiples and submultiples. The metric system uses prefixes to identify multiplication factors. The last four prefixes are derived from the Latin.

Prefix	Power	Number
kilo	10^3	1,000
hecto	10^2	100
deka	10^1	10
----	10^0	1
deci	10^{-1}	0.1
centi	10^{-2}	0.01
milli	10^{-3}	0.001
micro	10^{-6}	0.000001

Symbols for Metric Measure	
10^3 meters is a kilometer	km
10^2 meters is a hectometer	hm
10^1 meters is a dekameter	dam
10^0 meter is a meter	m
10^{-1} meter is a decimeter	dm
10^{-2} meter is a centimeter	cm
10^{-3} meter is a millimeter	mm

ACRONYMS

The use of acronyms has become common in modern America. The suffix *-nym* means *name*; *acro* means *height* or *summit*. An acronym, then, is a *height name*, an abbreviated name made by using only the capital letters of a long name (capital letters are "higher").
Notice these examples:

CAP = Central Arizona Project
LASER = Light Amplification by Stimulated Emission of Radiation
NAFTA = North American Free Trade Agreement
NATO = North Atlantic Treaty Organization
RADAR = RAdio Detecting And Ranging
RAM = Random Access Memory (a computer term)
RSVP = Respondez S'il Vous Plait—French for "Please respond"
SNAFU = Situation Normal: All Fouled Up
SCUBA = Self-Contained Underwater Breathing Apparatus
TEAM = The Evangelical Alliance Mission
TVA = Tennessee Valley Authority
ZIP = Zone Improvement Program—for speeding the mail

Can you think of other acronyms not listed here?

Answer the following questions.

1.77 What is a cubit? _____

1.78 What is a span? _____

1.79 What is a gross? _____

1.80 What are the six basic units of measure of SI and what do they measure?

a. _____ b. _____

c. _____ d. _____

e. _____ f. _____

Match the following items.

1.81	_____	micro	**a.** 1,000
1.82	_____	deci	**b.** 100
1.83	_____	kilo	**c.** 10
1.84	_____	deka	**d.** 0.1
1.85	_____	centi	**e.** 0.01
1.86	_____	milli	**f.** 0.001
1.87	_____	hecto	**g.** 0.000001

Fill in the blanks with the correct acronym.

1.88 _____ is the association providing hydro-electric power to some areas along the Tennessee River Valley.

1.89 Many divers use _____ equipment.

1.90 A party invitation may include _____ so that enough refreshments may be provided.

1.91 _____ codes should be used in the return address for all packages.

Review the material in this section in preparation for the Self Test. The Self Test will check your mastery of this particular section. The items missed on this Self Test will indicate specific areas where restudy is needed for mastery.