Name:_____ Class:_____ Date:_____

Chapter 01 - Measurements in Science and Medicine

1. An appropriate unit to measure the length of a football field would be the meter.
   a. True
   b. False

ANSWER: True

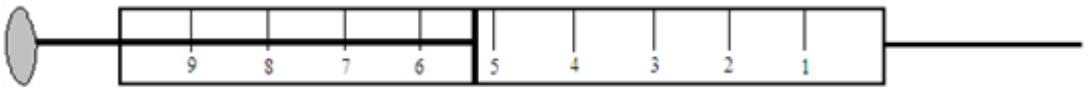
2. Using a unit of mg to measure the mass of a premature infant would not be appropriate because the mass of the infant would be a very large number.
   a. True
   b. False

ANSWER: True

3. The memory capacity of a flash drive is measured in **giga**bytes so that the capacity can be expressed using simple integers.
   a. True
   b. False

ANSWER: True

4. If the following represents a syringe that measures in cc's (cm^3), the volume indicated by the end of the plunger would be correctly recorded as 5.2 cc.



   a. True
   b. False

ANSWER: True

5. The average of the following volume measurements is 15.5 mL.

Volume Measurements
15.7 mL
15.2 mL
15.9 mL
15.6 mL
15.3 mL

.
   a. True
   b. False

ANSWER: True

6. To convert feet to inches, you should multiply by the factor shown below.

$$\frac{12\ \text{in}}{1\ \text{ft}}$$

   a. True
   b. False

ANSWER: True

7. To convert micrograms to grams, you should multiply by 1,000,000 g/μg.
   a. True
   b. False

ANSWER: False

8. A patient weights 220 lbs. A medication for this patient is supposed to be taken using a dosage of 3 mg per kg per day. The correct dose for this patient is 3000 mg per day.
   a. True
   b. False

ANSWER: False

9. A pharmaceutical solution of penicillin contains 125 mg of penicillin in 3 mL. The two conversion factors that express this relationship are:

$$\frac{125\text{ mg penicillin}}{3\text{ mL}} \text{ and } \frac{3\text{ mg penicillin}}{125\text{ mL}}$$

   a. True
   b. False

ANSWER: False

10. A 20.00 mL urine sample of a patient has a mass of 20.70 g. This patient is most likely drinking very large amounts of water.
   a. True
   b. False

ANSWER: False

11. A Celsius degree is the same size as a Kelvin degree.
   a. True
   b. False

ANSWER: True

12. One advantage of the Kelvin system is that it is impossible to have temperatures below zero.
   a. True
   b. False

ANSWER: True

13. The lowest temperature ever recorded on earth was –128.6°F. The temperature is equivalent to – 89.2 K.
   a. True
   b. False

ANSWER: False

14. The normal range (adult) for specific gravity of urine is 1.020 - 1.028 g/mL
   a. True