# CHAPTER 1: Supplemental Questions

**1.** **a.** How old is a person who has lived 22,630 days in years? (365 days = 1 year)

**b.** How old is a 13-year-old in days?

**2.** Motion of the earth and moon give the three easiest ways to measure time. Using these two bodies, how could the following be measured?

**a.** 1 day _____

**b.** 1 month _____

**c.** 1 year _____

**3.** What is a leap year, and how often does it occur?

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**4.** How many days did each of the following calendars have in a year?

**a.** Babylonian _____

**b.** Egyptian _____

**c.** Julian _____

**d.** Gregorian _____

# CHAPTER 2: Supplemental Questions

**1.** In ancient times, which was more important – knowing the correct time (hour and minute) or an accurate calendar? Why?

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**2.** How many heartbeats have occurred in the life of a 20-year-old?
Given: average heartbeat is 70 beats/min; 60 min/hr, 24 hr/day, 365 days/year

**3.** If a person works 8 hours/day, 5 days/week, 52 weeks/year, how many hours does the person work per year?

**4.** Why is it so important that railroads all operate on the same time?

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# CHAPTER 3: Supplemental Questions

**1.** Which is heavier – a troy pound or a Customary System pound? How many troy ounces are in a troy pound, and where is it used?

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**2.** Which is longer – a land mile or a nautical mile? How many feet are in each?

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**3.** A gold chain is said to be 10-carat gold. What does this mean?

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**4.** Write the following as a fraction (reduce):

**a.** 7 carats _____

**b.** 24 carats _____

**c.** 12 carats _____

**d.** 20 carats _____

**5.** Convert the following weights to pounds:

**a.** 12 hundredweights _____

**b.** 3 hundredweights _____

**c.** 6 stones _____

**d.** 15 stones _____

**6.** Convert the following to tons and long tons:

**a.** 13,450 lbs = _____ tons = _____ long tons

**b.** 1,000 lbs = _____ tons = _____ long tons

**7.** Were the Roman milemarkers (stone markers) used during the Roman Empire to mark distances actually 1 mile apart according to the British definition of a mile?

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**8.** What was the original definition of a mile? Who changed it, and why?

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# CHAPTER 1-3: Review

## MATCHING:

_____ **1.** Egyptians
_____ **2.** Christian Huygens
_____ **3.** Galileo
_____ **4.** fathom
_____ **5.** tilt of the earth's axis
_____ **6.** knots
_____ **7.** avoirdupois
_____ **8.** cesium
_____ **9.** 29.5 days
_____ **10.** 2,240 lbs.
_____ **11.** Queen Victoria
_____ **12.** 1 pound
_____ **13.** lunar
_____ **14.** Royal Observatory at Greenwich, England
_____ **15.** Sirius
_____ **16.** troy ounce
_____ **17.** 1 second
_____ **18.** AM and PM
_____ **19.** Pope Gregory XIII
_____ **20.** hourglass

A. the time for the moon to make 1 revolution around the earth
B. seasons are caused by the _____
C. brightest star in the night sky
D. a calendar based upon the phases of the moon
E. responsible for today's calendar
F. invented the hour
G. thought a sermon should not last longer than 30 min
H. a device for keeping time
I. a pendulum exactly 39.14 inches long takes _____ to swing from one side to another
J. built the first clock that measured hours, minutes, and seconds
K. ante meridian and post meridian
L. most accurate clock in the world
M. discovered that the period of a pendulum was determined by its length
N. prime meridian of the world, the line of zero longitude
O. a system of weights
P. 1st standard unit of measure for weight
Q. 1 long ton
R. 6 feet
S. ships and aircraft measure speed in _____
T. the weight of 1 pint of water

## SHORT ANSWER:

**1.** Convert the following to tons and long tons:

**a.** 22,500 lbs. = _____ tons = _____ long tons
**b.** 850 lbs. = _____ tons = _____ long tons

**2.** Convert the following weights to pounds:

**a.** 13 hundredweights _____
**b.** 7.5 hundredweights _____
**c.** 12 stones _____
**d.** 6.5 stones _____

**3.** Write the following as a fraction (reduce):

**a.** 10 carats _____
**b.** 22 carats _____
**c.** 14 carats _____
**d.** 1 carat _____

**4.** How many heart beats have occurred in the life of a 13-year-old?

Given: average heart beat 70 beats/min; 60 min/hr, 24 hr/day, 365 days/year

**5.** In ancient times, which was more important – knowing the correct time (hour and minute) or an accurate calendar? Why?

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**6.** How many days did each of the following calendars have a year?

**a.** Babylonian _____

**b.** Egyptian _____

**c.** Julian _____

**d.** Gregorian _____

**7.** **a.** How old is a person who has lived 16,060 days?

**b.** How old is a person who has lived 3,650 days?

# CHAPTER 1-3 TEST

Name:_____ Date: _____ Score: _____

75 pts. total

**MATCHING:** (2 pts. each)

_____ **1.** 1 second

_____ **2.** Egyptians

_____ **3.** Sirius

_____ **4.** 1 pound

_____ **5.** Pope Gregory XIII

_____ **6.** Royal Observatory at Greenwich, England

_____ **7.** hourglass

_____ **8.** tilt of the earth's axis

_____ **9.** fathom

_____ **10.** Galileo

_____ **11.** troy ounce

_____ **12.** 29.5 days

_____ **13.** knots

_____ **14.** cesium

_____ **15.** 2,240 lbs.

_____ **16.** AM and PM

_____ **17.** Queen Victoria

_____ **18.** lunar

_____ **19.** Christian Huygens

_____ **20.** avoirdupois

A. 6 feet
B. ships and aircraft measure speed in _____
C. the weight of 1 pint of water
D. 1 long ton
E. 1st standard unit of measure for weight
F. a system of weights
G. prime meridian of the world, the line of zero longitude
H. discovered that the period of a pendulum was determined by its length
I. most accurate clock in the world
J. ante meridian and post meridian
K. built the first clock that measured hours, minutes, and seconds
L. a pendulum exactly 39.14 inches long takes _____ to swing from one side to another
M. a device for keeping time
N. thought a sermon should not last longer than 30 min
O. invented the hour
P. responsible for today's calendar
Q. a calendar based upon the phases of the moon
R. brightest star in the night sky
S. seasons are caused by the _____
T. the time for the moon to make 1 revolution around the earth

**SHORT ANSWER:** (5 pts. each)

**1.** In ancient times, which was more important – knowing the correct time (hour and minute) or an accurate calendar? Why?

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**2.** Convert the following to tons and long tons:

**a.** 32,500 lbs. = _____ tons = _____ long tons

**b.** 1,900 lbs. = _____ tons = _____ long tons

**3.** Write the following as a fraction (reduce):

**a.** 2 carats _____

**b.** 6 carats _____

**c.** 23 carats _____

**d.** 12 carats _____

**4.** Convert the following weights to pounds:

**a.** 2 hundredweights _____

**b.** 9.8 hundredweights _____

**c.** 75 stones _____

**d.** 5 stones _____

**5.** Given that average heartbeat is 70 beats/min and there are 365 days/year, answer the following questions:

**a.** How many heartbeats have occurred in the life of a 21-year-old?

**b.** How many heartbeats have occurred in the life of an 88-year-old?

**6.** **a.** How old is a person who has lived 32,120 days?

**b.** How old is a person who has lived 1,825 days?

**7.** How many days did each of the following calendars have a year?

**a.** Babylonian _____

**b.** Egyptian _____

**c.** Julian _____

**d.** Gregorian _____