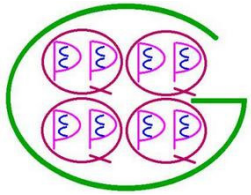
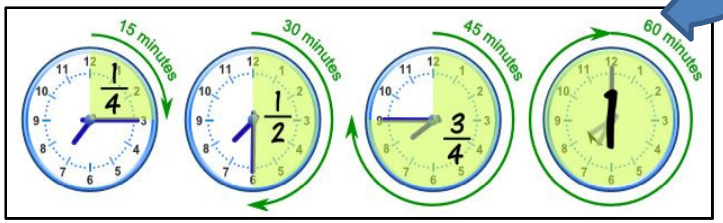
Study Guide: Customary System, Metric System, & Elapsed Time

Customary (Length)	**Customary (Capacity)**	**Customary (Weighty)**	**Time**
12 inches = 1 foot 3 feet = 1 yard 36 inches = 1 yard 1,760 yards = 1 mile 5,280 feet = 1 mile		16 ounces = 1 pound (lb) 2,000 pounds = 1 ton	60 seconds = 1 minute 60 minutes = 1 hour 24 hours = 1 day 7 days = 1 week 52 weeks = 1 year 365 days = 1 year

¼ hour = 15 minutes
½ hour = 30 minutes
¾ hour = 45 minutes

Metric System

King	Henry	Doesn't	Usually	Drink	Chocolate	Milk
Kilo	Hecto	Deka	Meter	Deci	Centi	Milli
1,000	100	10	Liter Gram	.1	.01	.001



KNOW THE RULES !

MULTIPLY

Bigger Unit ---------- to -------> Smaller Unit

5 tons = _____ pounds
Pounds are smaller, you will need a lot of them,
multiply 5 x 2,000 = 10,000
Why 2,000? Because 2,000 lbs = 1 ton

8 gallons = _____ fluid ounces
Fluid ounces are smaller, you will need a lot of them,
Multiply 8 x 128 = 1,024
Why 128? Because there are 128 fl oz in a gallon.

DIVIDE

Smaller Unit ---------- to -------> Bigger Unit

10,0000 pounds = _____ tons
Tons are bigger, you will need less of them, divide
10,000 ÷ 2,000 = 5
Why 2,000? Because 2,000 lbs = 1 ton

80 quarts = _____ gallons
Gallons are bigger, you will need less of them, divide
80 ÷4 = 20
Why 4? Because there are 4 quarts in a gallon.

Question 1: Complete the table

HOURS	MINUTES	SECONDS
3		
	420	
		36,000

Bigger to Smaller MULTIPLY
Hours to Minutes – multiply
Minutes to Seconds – multiply

Smaller to Bigger DIVIDE
Seconds to Minutes – divide
Minutes to Hours –divide

Question 2: Solve *(Hint: How many hours are in a day?)*

Joseph spent 28 **days** hiking the Rocky Mountains. How many **hours** did he spend hiking the mountains?

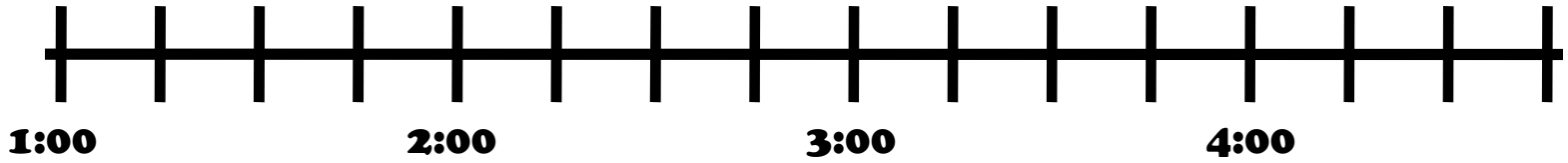
Question 3: Solve *(Hint: Change all the distances into **inches** first, then compare them.)*

In a long jump, Abby can jump 52 inches. Salina can jump 3 feet 6 inches, and Maya can jump 1 yard, 1 foot and 2 inches . Who can jump the farthest?

Question 4: *(Hint: Each line on the number line represents 15 minutes)*

Julius is going to see a double feature (two movies). The first movie begins at 1 PM. Then there will be a 15 minute break. The second movie begins at 3:30 PM. Use this information to help answer the questions below.

A. Draw a visual model (number line) to display the information given. (Label all the lines)



B. How long is the first movie: _____ hours _____ min

C. Julius left the movie theater at **4:45 PM**. How long was the second movie in hours and minutes: _____ hrs _____min

Question 5: True or False? *(Hint: Know your abbreviations! If not, use the front page of this study guide)*

1,500 lb > 1 T	True	False
45 oz < 3 lb	True	False
64 oz = 3 lb	True	False

Don't guess!
Change one of the measurements to match the other side. Either multiply one side or divide one side, get them to be the same unit of measure so that you can compare them.

Question 6: Complete the table:

A fish tank holds 20 gallons of water. Stephan is using a 1-pint container to fill the tank. Complete the table to help you find the number of pints of water Stephan will need to fill the tank.

Gallon(s)	1	5	10	15
Pints				

Do you know how many pints are in ONE gallon? If not, draw the Big G or look at the front of your study guide.

Once you know, MULTIPLY the gallons by the number of pints per gallon.

Bigger to Small ---- MULTIPLY

Question7: Complete the table

Kilograms	Grams	Milligrams
		350
16		
	7	

King Henry Doesn't Usually Drink Chocolate Milk

K H D U D C M

Look at the headings, Kilo (1,000) Gram (1) Milli (.001)

You are either moving the decimal three places left or three place right.

Question 8: Solve

An art teacher has a roll of paper that is **8 meters** long. She needs to cut it into pieces. Each piece needs to be 1 **decimeter** long.

Part A: How many pieces of paper will she have? _____

King Henry Doesn't Usually Drink Chocolate Milk

K H D U D C M

First step: Locate the decimal point on the number 8
Second step: Which letters are you skipping from and to? Which direction?
Third step: Move the decimal point the same number of times in the same direction

Part B: Explain how you found your answer using knowledge of the metric system.

Question 9: True or False?

Ms. Williams bought **4 liters** of water, **3,750 milliliters** of soda, and **2.45 liters** of juice. Using this information answer true or false to the statements below.

Ms. Williams bought 400 mL of water.	True	False
Ms. Williams bought 3.75 L of soda	True	False
Ms. Williams bought 2,450 mL of juice	True	False

Don't guess!

KHDUDCM

Change 4 liters into milliliters.
Change 3,750 milliliters into liters.
Change 2.45 liters into milliliters.

If they match its True, if not its False