



Investigative Science

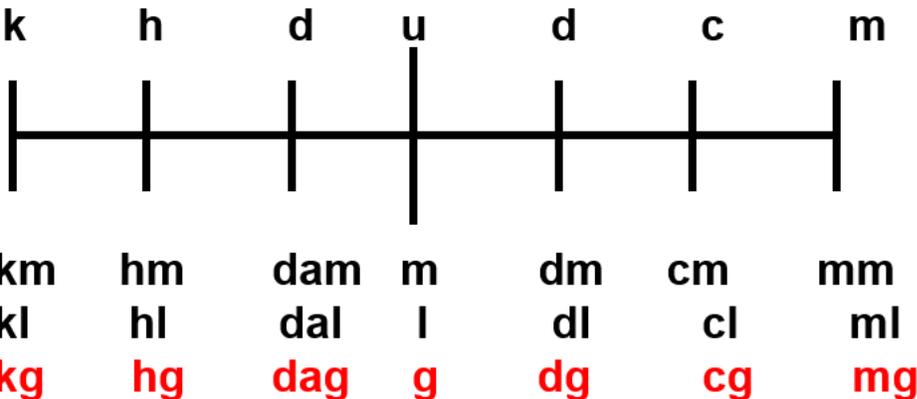
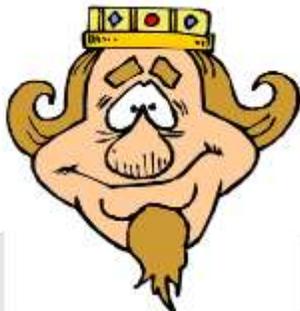


Name: _____

Period _____

Date: _____

King Henry Died Unexpectedly Drinking Chocolate Milk



1. Look at the problem. Look at the unit that has a number. On the device put your pencil on unit on problem.
2. Move to new unit, counting jumps and noticing the direction of the jump.
3. Move decimal in original number the same # of spaces and in the same direction.

1) Write the equivalent measurement:

- | | | |
|------------------------------------|----------------------|----------------------------------|
| a) 5 dm = _____ m | b) 4 mL = _____ L | c) 8 g = _____ mg |
| d) 9 mg = _____ g | e) 2 mL = _____ L | f) 6 kg = _____ g |
| g) 4 cm = _____ m | h) 12 mg = _____ g | i) 6.5 cm ³ = _____ L |
| j) 7.02 mL = _____ cm ³ | k) .03 hg = _____ dg | l) 6035 mm = _____ cm |
| m) .32 m = _____ cm | n) 38.2 g = _____ kg | |

2. One cereal bar has a mass of 37 g. What is the mass of 6 cereal bars? Is that more than or less than 1 kg? Explain your answer.

3. Wanda needs to move 110 kg of rocks. She can carry 10 hg each trip. How many trips must she make? Explain your answer.

4. Dr. O is playing in her garden again She needs 1 kg of potting soil for her plants. She has 750 g. How much more does she need? Explain your answer.

5. Weather satellites orbit Earth at an altitude of 1,400,000 meters. What is this altitude in kilometers?

6. Which unit would you use to measure the capacity? Write milliliter or liter.

- a) a bucket _____
- b) a thimble _____
- c) a water storage tank _____
- d) a carton of juice _____

7. Circle the more reasonable measure:

- a) length of an ant **5mm or 5cm**
- b) length of an automobile **5 m or 50 m**
- c) distance from NY to LA **450 km or 4,500 km**
- d) height of a dining table **75 mm or 75 cm**

8. Will a tablecloth that is 155 cm long cover a table that is 1.6 m long? Explain your answer

9. A dollar bill is 15.6 cm long. If 200 dollar bills were laid end to end, how many meters long would the line be?

10. The ceiling in Jan's living room is 2.5 m high. She has a hanging lamp that hangs down 41 cm. Her husband is exactly 2 m tall. Will he hit his head on the hanging lamp? Why or why not?

Match the terms in Column II with the descriptions in Column I. Write the letters of the correct term in the blank on the left.

Using SI Units

Match the terms in Column II with the descriptions in Column I. Write the letters of the correct term in the blank on the left.

Column I	Column II
_____ 1. distance between two points	a. time
_____ 2. SI unit of length	b. volume
_____ 3. tool used to measure length	c. mass
_____ 4. units obtained by combining other units	d. density
_____ 5. amount of space occupied by an object	e. meter
_____ 6. unit used to express volume	f. kilogram
_____ 7. SI unit of mass	g. derived
_____ 8. amount of matter in an object	h. liter
_____ 9. mass per unit of volume	i. second
_____ 10. temperature scale of most laboratory thermometers	j. Kelvin
_____ 11. instrument used to measure mass	k. length
_____ 12. interval between two events	l. balance
_____ 13. SI unit of temperature	m. meterstick
_____ 14. SI unit of time	n. thermometer
_____ 15. instrument used to measure temperature	o. Celsius

SI Prefix Meaning

Some prefixes used in SI are listed in the table below. Use the information in the table to answer questions 1—5.

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SI Prefix	Meaning
kilo-	thousand (1000)
hecto-	hundred (100)
deka-	ten (10)
deci-	tenth (0.10)
centi-	hundredth (0.01)
milli-	thousandth (0.001)

1. How many meters are in one kilometer? _____
2. What part of a liter is one milliliter? _____
3. How many grams are in two *dekagrams*? _____
4. If one gram of water has a volume of one milliliter, what would the mass of one liter of water be in kilograms? _____
5. What part of a meter is a decimeter? _____

In the blank, write the term that correctly completes each statement. Choose from the terms listed below.

Metric SI	standard ten	prefixes tenth
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6. An exact quantity that people agree to use for comparison is a _____ .
7. The system of measurement used worldwide in science is _____ .
8. SI is based on units of _____ .
9. The first system of measurement that was based on units of ten was the _____ system.
10. In SI, _____ are used with the names of the base unit to indicate the multiple of ten that is being used with the base unit.
11. The prefix *deci-* means _____ .

SI prefixes and their meanings - Fill in the missing information in the table below.

Standards of Measurement

Fill in the missing information in the table below.

SI prefixes and their meanings	
Prefix	Meaning
	0.001
	0.01
deci-	0.1
	10
hecto-	100
	1000