

Preparing to Convert Metric Measurement Using Deconstruction

Name: _____

Date: _____

Preparing to Convert Metric Measurement Using Number Bonds

K ing	H enry	D ied	U nusually	D rinking	C hocolate	M ilk
Kilo	Hecto	Deca	Unit Meter <i>(length)</i> Liter <i>(liquid volume)</i> Gram <i>(mass/weight)</i> 1 Unit	Deci	Centi	Milli
10 x 10 x 10 x LARGER than a unit	10 x 10 x LARGER than a unit	10 x LARGER than a unit		10 x SMALLER than a unit	10 x 10 x SMALLER than a unit	10 x 10 x 10 x SMALLER than a unit
1 kilo = 1,000 units	1 hecto = 100 units	1 deca = 10 units		10 deci = 1 unit	100 centi = 1 unit	1000 milli = 1 unit
km = kilometer kL = kiloliter kg = kilograms	hm = hectometer hL = hectoliter hg = hectogram	dam = decameter daL = decaliter dag = decagram	m = meter L = liter g = grams	dm = decimeter dL = deciliter dg = decigram	cm = centimeter cL = centiliter cg = centigram	mm = millimeter mL = milliliter mg = milligram

Example 50 kilo

50 hecto

500 deca

5,000 units

50,000 deci

500,000 centi

5,000,000 milli

DIVIDE numbers by **10** if you are getting bigger (same as moving the decimal point 1 space to the left)

MULTIPLY numbers by **10** if you are getting smaller (same as moving the decimal point 1 space to the right)



Preparing to Convert Metric Measurement Using Deconstruction

Name: _____

Date: _____

Part A: Thinking About Metric Units

Answers

Use a meter stick or the chart above to answer the questions below. The most common units are in bold .

1.

$$10 \text{ millimeters} = \underline{\quad 1 \quad} \text{ centimeters}$$

$$10 \text{ centimeters} = \underline{\quad 1 \quad} \text{ decimeters}$$

$$10 \text{ decimeters} = \underline{\quad 1 \quad} \text{ meters}$$

$$10 \text{ meters} = \underline{\quad 1 \quad} \text{ dekameters}$$

$$10 \text{ dekameters} = \underline{\quad 1 \quad} \text{ hectometer}$$

$$10 \text{ hectometers} = \underline{\quad 1 \quad} \text{ kilometers}$$

2.

$$1 \text{ meter} = \underline{\quad 100 \quad} \text{ centimeters}$$

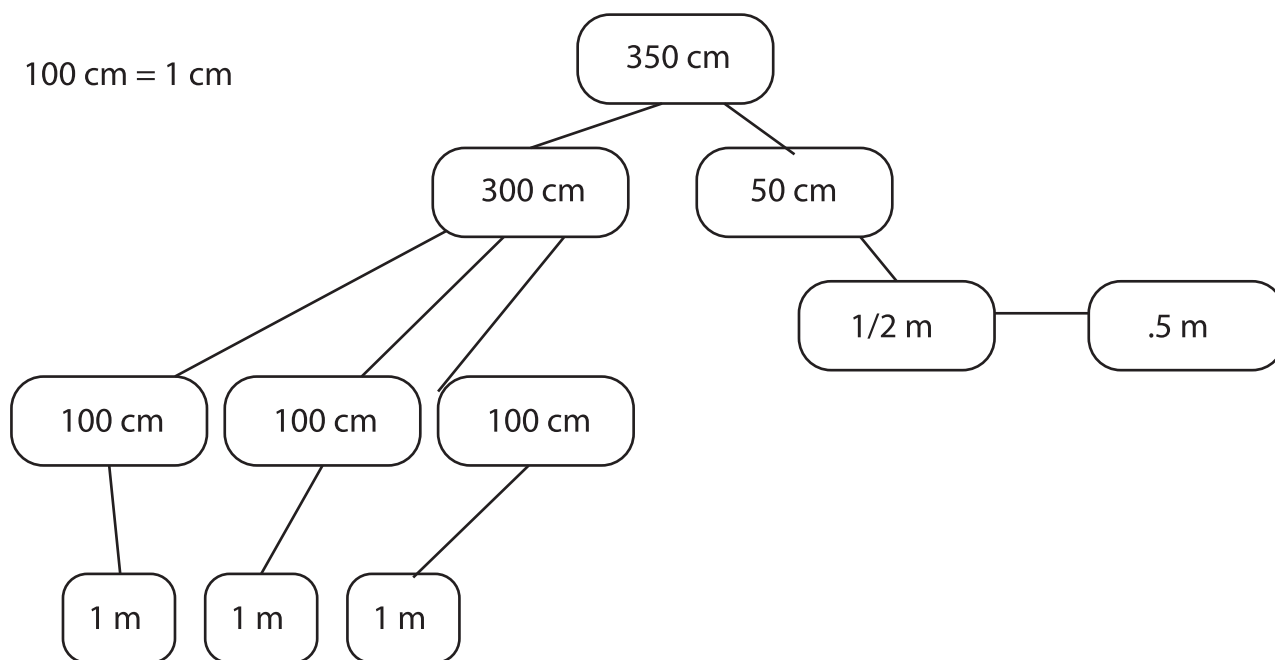
$$1 \text{ meter} = \underline{\quad 1,000 \quad} \text{ millimeters}$$

$$50 \text{ cm} = \underline{\quad .5 \quad} \text{ meters (this number will be less than 1)}$$

$$10 \text{ cm} = \underline{\quad .1 \quad} \text{ meters}$$

Part B: Converting Measurements by Deconstructing

Now, examine the deconstructed number below. The measurement in the top circle has been converted into meters.



$$350\text{cm} = 3 \text{ m} + 50 \text{ mm} = 3.5 \text{ meters}$$

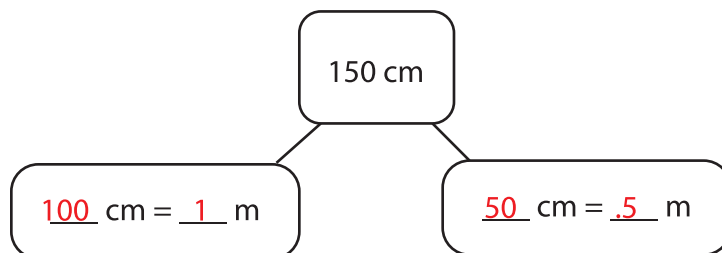
Using the example above as a guide, deconstruct the measurement in the top circle and convert it to meters.



Preparing to Convert Metric Measurement Using Deconstruction

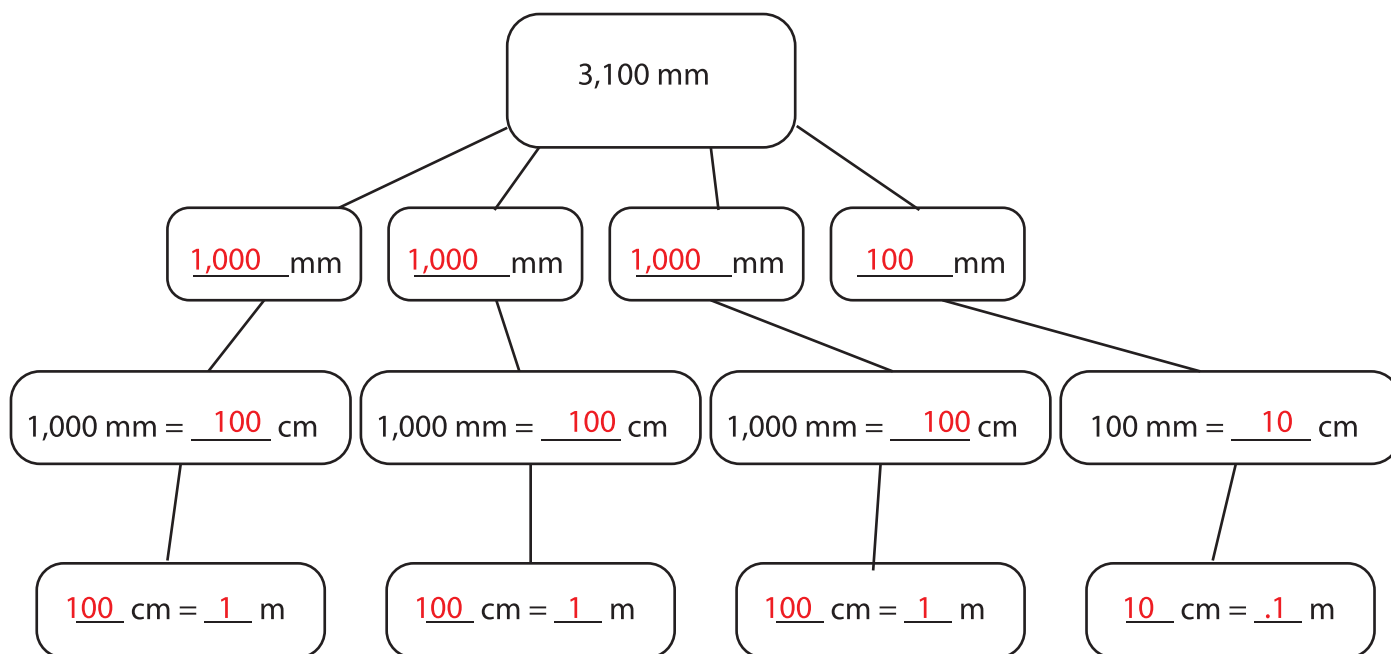
Name: _____ Date: _____

3. Convert 150 cm to meters using deconstruction method below.



Add the meters in the bottom circles. 150 cm is equal to 1.5 meters.

4. Now convert 3,100 mm to meters using deconstruction method below.



Add the meters in the bottom circles. 3,100 mm is equal to 3.1 meters

Questions for Discussion

Compare the original measurement and measurement in meters. What do you notice? Is there a pattern? How could you use this pattern to convert metric units more easily?