G__M__k h dk ☐ d c m__μ__n__p

EXTRA PRACTICE: Metric Conversions ANSWER KEY

Name: _____

I. Give the number value for each prefix on the first line AND convert to Scientific Notation on the second line.

hecto → 100 1×10^{2}

milli → 0.001 1×10^{-3}

centi → 0.1 1×10^{-2}

kilo → 1000 1×10^{3}

II. Write the symbols for the following units.

kiloliter → kL

dekameter → dkm

deciliter → dL

hectometer → hm

centigram → cg

gram → g

III. Give the prefix for each number value below.

1,000,000 → Mega-

0.1 → Deci-

10 → Deka-

100 → Hecto-

0.001 → Milli-

0.01 → Centi-

IV. Perform the metric conversions using the FACTOR LABELING METHOD!

28 hL = ? ML → $\frac{28\text{ hL}}{1} \cdot \frac{1\text{ ML}}{10000\text{ hL}} = \boxed{0.0028\text{ ML}}$

681 m = ? dm → $\frac{681\text{ m}}{1} \cdot \frac{10\text{ dm}}{1\text{ m}} = \boxed{6810\text{ dm}}$

375 g = ? dkg → $\frac{375\text{ g}}{1} \cdot \frac{1\text{ dkg}}{10\text{ g}} = \boxed{37.5\text{ dkg}}$

419 dkL = ? mL → $\frac{419\text{ dkL}}{1} \cdot \frac{1 \times 10^{4}\text{ mL}}{1\text{ dkL}} = \boxed{4.19 \times 10^{6}\text{ mL}}$

1122 m = ? μm → $\frac{1122\text{ m}}{1} \cdot \frac{1 \times 10^{6}\ \mu\text{m}}{1\text{ m}} = \boxed{1.122 \times 10^{9}\ \mu\text{m}}$

555 hg = ? g → $\frac{555\text{ hg}}{1} \cdot \frac{100\text{ g}}{1\text{ hg}} = \boxed{55{,}500\text{ g}}$

8 kL = ? cL → $\frac{8\text{ kL}}{1} \cdot \frac{1 \times 10^{5}\text{ cL}}{1\text{ kL}} = \boxed{800{,}000\text{ cL}}$

V. Convert to scientific notation if given expanded (standard) notation. Convert to expanded (standard) notation if given scientific notation.

2,960,000 → 2.96×10^{6}

3.43×10^{4} → 34,300

0.00005834 → 5.834×10^{-5}

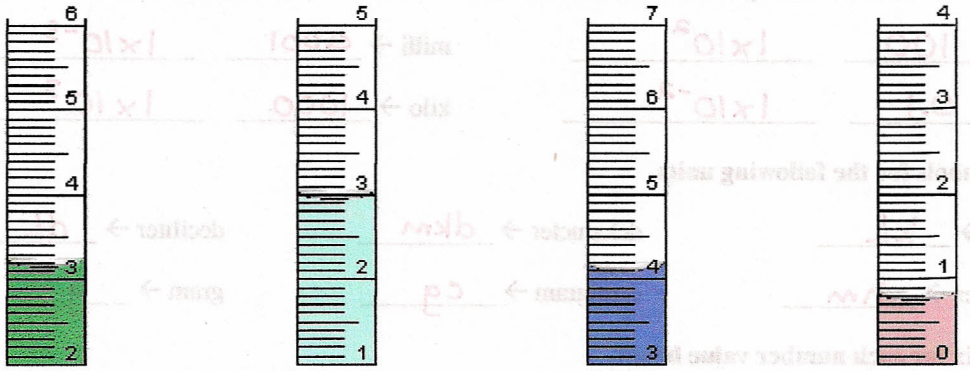
0.0034×10^{5} → 340

5.335 → 5.335×10^{0}

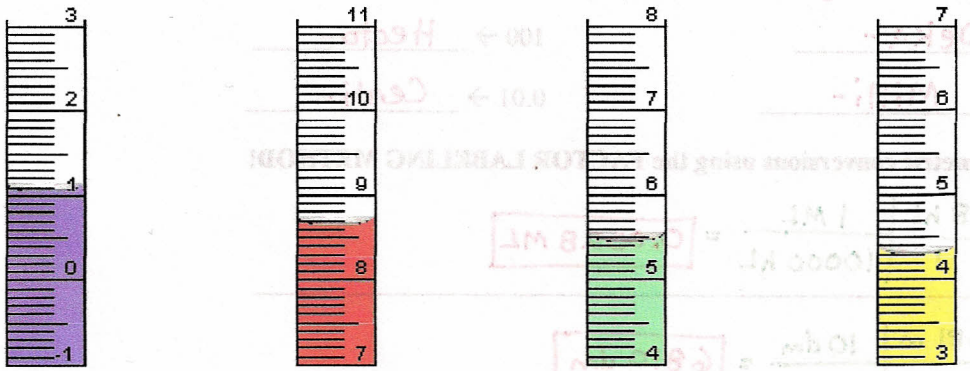
865.3×10^{-6} → 0.0008653

VI. Record the following measurements:

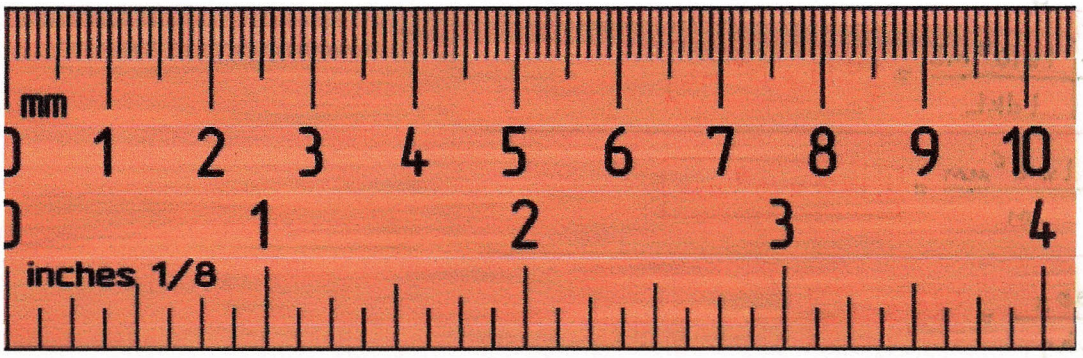
What is the reading in milliliters for each graduated cylinder?



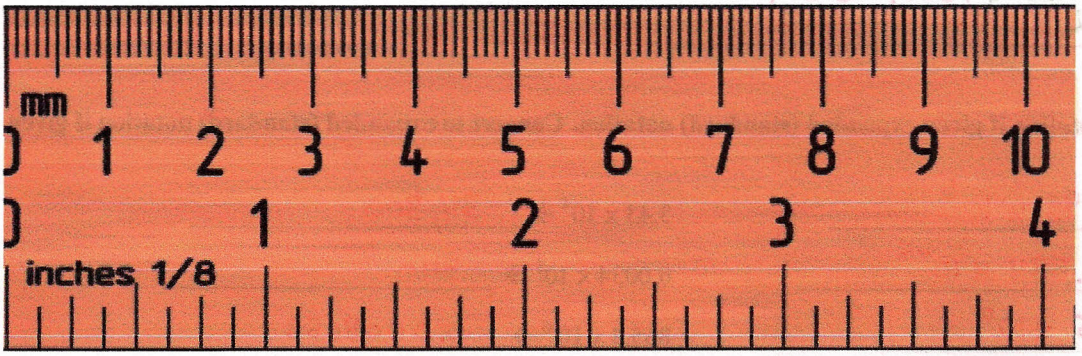
3.15 mL 2.95 mL 4.10 mL 0.75 mL



2.10 mL 8.65 mL 5.45 mL 4.31 mL



6.65 cm



2.79 cm