

ANSWER KEY

The Metric System is Mega Cool! HW

1. Write 2.1×10^3 in decimal notation
2. Write 505,000 in scientific notation
3. Convert 29 kg to cg
4. Convert 32 cm to m
5. Convert 14 minutes to seconds
6. Convert 609,000 dg to μg
7. Convert 1.2 terabytes to megabytes
8. Convert 20 quarts to liters
9. Convert 3.7 feet to inches
10. Convert 100 mL to cm^3

You must show your work to get credit - Bridges and units - even if you can do it in your head!

The notebook quiz will include HW questions similar to these (not identical) so don't simply copy the answers. Do the HW yourself!!

$$\textcircled{1} \boxed{2,100} \quad \textcircled{2} \boxed{5.05 \times 10^5}$$

$$\textcircled{3} \text{ ? cg} = \frac{29 \text{ kg} \left| \frac{1000 \text{ g}}{1 \text{ kg}} \right| \frac{100 \text{ cg}}{1 \text{ g}}}{1} = \boxed{2,900,000 \text{ cg (or } 2.9 \times 10^6 \text{ cg)}}$$

$$\textcircled{4} \text{ ? m} = \frac{32 \text{ cm} \left| \frac{1 \text{ m}}{100 \text{ cm}} \right|}{1} = \boxed{0.32 \text{ m}}$$

$$\textcircled{5} \text{ ? s} = \frac{14 \text{ min} \left| \frac{60 \text{ s}}{1 \text{ min}} \right|}{1} = \boxed{840 \text{ s}}$$

$$\textcircled{6} \text{ ? } \mu\text{g} = \frac{609,000 \text{ dg} \left| \frac{1 \text{ g}}{10 \text{ dg}} \right| \frac{10^6 \mu\text{g}}{1 \text{ g}}}{1} = \boxed{6.09 \times 10^{10} \mu\text{g}}$$

$$\textcircled{7} \text{ ? MB} = \frac{1.2 \text{ TB} \left| \frac{10^{12} \text{ B}}{1 \text{ TB}} \right| \frac{1 \text{ MB}}{10^6 \text{ B}}}{1} = \boxed{1.2 \times 10^6 \text{ MB}}$$

$$\textcircled{8} \text{ ? L} = \frac{20 \text{ qt} \left| \frac{1 \text{ gal}}{4 \text{ qt}} \right| \frac{3.78 \text{ L}}{1 \text{ gal}}}{1} = \boxed{18.9 \text{ L}}$$

$$\textcircled{9} \text{ ? in} = \frac{3.7 \text{ ft} \left| \frac{12 \text{ in}}{1 \text{ ft}} \right|}{1} = \boxed{44.4 \text{ in}}$$

$$\textcircled{10} \text{ since } 1 \text{ mL} = 1 \text{ cm}^3$$