Worksheet: Metric Conversions **Name**_____*KEY*_____

1. 0.057 m to km

$$?\,km = \frac{0.057\ \cancel{m}}{1} \times \frac{1\,km}{1000\ \cancel{m}} = \boxed{5.7\times10^{-5}\ km}$$

2. 13 cm^3 to mL

$$?\,mL = \frac{13\ \cancel{cm}^{3}}{1} \times \frac{1\,mL}{1\ \cancel{cm}^{3}} = \boxed{1.3\times10^{1}\ mL}$$

3. 0.986 hours to seconds

$$?\,s = \frac{0.986\ \cancel{hours}}{1} \times \frac{60\ \cancel{min}}{1\ \cancel{hour}} \times \frac{60\,s}{1\ \cancel{min}} = \boxed{3.55\times10^{3}\ s}$$

4. 3.004 L to mL

$$?\,mL = \frac{3.004\ \cancel{L}}{1} \times \frac{1000\,mL}{1\ \cancel{L}} = \boxed{3.004\ \times10^{3}\ mL}$$

5. 86 kg to g

$$?\,g = \frac{86\ \cancel{kg}}{1} \times \frac{1000\,g}{1\ \cancel{kg}} = \boxed{8.6\times10^{4}\ g}$$

6. 24 cm^3 to L

$$?\,L = \frac{24\ \cancel{cm}^{3}}{1} \times \frac{1\ \cancel{mL}}{1\ \cancel{cm}^{3}} \times \frac{1\,L}{1000\ \cancel{mL}} = \boxed{2.4\times10^{-2}\ L}$$

7. 56,000 μg to kg

$$?\,kg = \frac{56{,}000\ \cancel{\mu g}}{1} \times \frac{1\ \cancel{g}}{1{,}000{,}000\ \cancel{\mu g}} \times \frac{1\,kg}{1000\ \cancel{g}} = \boxed{5.6\times10^{-5}\ kg}$$

8. 56 km to mm

$$?\,mm = \frac{56\ \cancel{km}}{1} \times \frac{1000\ \cancel{m}}{1\ \cancel{km}} \times \frac{1000\,mm}{1\ \cancel{m}} = \boxed{5.6\times10^{7}\ mm}$$

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9. 20 km to feet

$$?\ feet = \frac{20\ \cancel{km}}{1} \times \frac{1000\ \cancel{m}}{1\ \cancel{km}} \times \frac{100\ \cancel{cm}}{1\ \cancel{m}} \times \frac{1\ \cancel{in}}{2.54\ \cancel{cm}} \times \frac{1\ foot}{12\ \cancel{in}} = \boxed{7\times10^{4}\ feet}$$