

Period:

Name _____

Worksheet: Metric Conversions

1. 0.057 m to km

$$0.057 \text{ m} \times \frac{1 \text{ km}}{1000 \text{ m}} = 0.000057 \text{ km}$$

2. 13 cm³ to mL

$$13 \text{ cm}^3 \times \frac{1 \text{ mL}}{1 \text{ cm}^3} = 13 \text{ mL}$$

3. 0.986 hours to seconds

$$0.986 \text{ h} \times \frac{60 \text{ Min}}{1 \text{ h}} \times \frac{60 \text{ s}}{1 \text{ Min}} = 3549.6 \text{ s} \rightarrow 3550 \text{ s}$$

4. 3.004 L to mL

$$3.004 \text{ L} \times \frac{1000 \text{ mL}}{1 \text{ L}} = 3004 \text{ mL}$$

5. 86 kg to g

$$86 \text{ kg} \times \frac{1000 \text{ g}}{1 \text{ kg}} = 86000 \text{ g}$$

6. 24 cm³ to L

$$24 \text{ cm}^3 \times \frac{1 \text{ mL}}{1 \text{ cm}^3} \times \frac{1 \text{ L}}{1000 \text{ mL}} = 0.024 \text{ L}$$

7. 56,000 μg to kg

$$56000 \text{ μg} \times \frac{1 \text{ g}}{1000000 \text{ μg}} \times \frac{1 \text{ kg}}{1000 \text{ g}} = 0.000056 \text{ kg}$$

8. 56 km to mm

$$56 \text{ km} \times \frac{1000 \text{ m}}{1 \text{ km}} \times \frac{1000 \text{ mm}}{1 \text{ m}} = 56000000 \text{ mm}$$

Get out your math hat!! (and your notes from Episode 104)

9. 20 km to feet

$$20 \text{ km} \times \frac{1000 \text{ m}}{1 \text{ km}} \times \frac{1.0936 \text{ yd}}{1 \text{ m}} \times \frac{3 \text{ ft}}{1 \text{ yd}} = 65616 \text{ ft}$$

$$6.5616 \times 10^4 \text{ ft}$$

$$\rightarrow 7 \times 10^4 \text{ ft}$$

$$5 \text{ sig fig}$$

Period:

Worksheet #4: Metric Conversions

Name _____

Show all work and express your answers in scientific notation.

1. 0.062 cm to m

$$0.062 \text{ cm} \times \frac{1 \text{ m}}{100 \text{ cm}} = 0.00062 \text{ m} = 6.2 \times 10^{-4} \text{ m}$$

2. 1.3 L to mL

$$1.3 \text{ L} \times \frac{1000 \text{ mL}}{1 \text{ L}} = 1300 \text{ mL} = 1.3 \times 10^3 \text{ mL}$$

3. 24 hours to seconds

$$24 \text{ h} \times \frac{60 \text{ min}}{1 \text{ h}} \times \frac{60 \text{ s}}{1 \text{ min}} = 86400 \text{ s}$$

4. 203 kL to L

$$203 \text{ kL} \times \frac{1000 \text{ L}}{1 \text{ kL}} = 203000 \text{ L}$$

5. 0.0145 km to m

$$0.0145 \text{ km} \times \frac{1000 \text{ m}}{1 \text{ km}} = 14.5 \text{ m}$$

6. 2.4 cm³ to mL

$$2.4 \text{ mL}$$

7. 6,000 cm³ to dL

$$6000 \text{ cm}^3 \times \frac{1 \text{ mL}}{1 \text{ cm}^3} \times \frac{1 \text{ dL}}{100 \text{ mL}} = 60 \text{ dL}$$

8. 5.6 Mm to dm

$$5.6 \text{ Mm} \times \frac{1000000 \text{ m}}{1 \text{ Mm}} \times \frac{10 \text{ dm}}{1 \text{ m}} = 5.6000000 \text{ dm} = 5.6 \times 10^7 \text{ dm}$$

9. 20 m to feet

$$20 \text{ m} \times \frac{1.0936 \text{ yd}}{1 \text{ m}} \times \frac{3 \text{ ft}}{1 \text{ yd}} = 65.616 \text{ ft} \approx 70 \text{ ft}$$