Name : _____ Score : _____

Teacher : _____ Date : _____

How Many Significant Digits for Each Number?

1) 0.00860 = 4

2) 0.00100 = 3

3) 8017 = 4

4) 2.300×10^{-5} = 4

5) 2.559×10^{4} = 3

6) 3.0×10^{-3} = 3

7) 0.0676 = 1

8) 4.39×10^{-4} = 4

9) 0.0004 = 4

10) 4806 = 4

11) 2.6×10^{9} = 3

12) 300 = 3

13) 0.0506 = 4

14) 1×10^{-7} = 3

15) 58.2 = 2

16) 9090 = 4

17) 790 = 3

18) 9950 = 4

19) 0.21520 = 1

20) 1×10^{1} = 3

Worksheet: Metric Conversions Name Rubric

1. 0.057 m to km

$$\frac{.057\text{m}}{1\ \text{km}} \times \frac{1\text{km}}{1000\text{m}} = 5.7\text{um}$$

2. 13 cm^3 to mL

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

3. 0.986 hours to seconds

$$\frac{.986\text{h}}{60\text{s}} \times \frac{60\text{min}}{1\text{h}} \times \frac{60\text{sec}}{1\ \text{min}} = \boxed{3.55 \times 10^3\ \text{s}}$$

4. 3.004 L to mL

$$\frac{3.004\text{L}}{1} \times \frac{1000\text{mL}}{1\text{L}} = \boxed{3.004 \times 10^3\text{mL}}$$

5. 86 kg to g

$$\frac{86}{1} \times \frac{1000\text{g}}{1} = \boxed{8.6 \times 10^4\text{g}}$$

6. 24 cm^3 to L

$$\frac{24\text{cm}^3}{100} \times \frac{1\text{L}}{1000\text{mL}} = \boxed{2.4 \times 10^2\text{L}}$$

7. 56,000 µg to kg

$$\frac{56000\text{g}}{1\text{Kg}} \times \frac{1\text{kg}}{1000\text{g}} \times \frac{1\text{g}}{1000\text{g}} = \boxed{5.6 \times 10^{-3}\text{kg}}$$

8. 56 km to mm

$$\frac{56}{1} \times \frac{1000\text{m}}{1\text{km}} \times \frac{1000}{1\text{m}} = \boxed{5.6 \times 10^7\text{mm}}$$

9. 20 km to feet

$$\frac{20}{1} \times \frac{1000}{1\text{km}} \times \frac{100}{\text{cm}} \times \frac{1\text{in}}{2.54\text{cm}} \times \frac{1\text{ft}}{12\text{in}} \boxed{7 \times 10^4\text{feet}}$$