SIGNIFICANT FIGURES, SCIENTIFIC NOTATION, AND METRIC PREFIXES Q1.0

1. Indicate the number of significant figures.

(a) 4.0×10^3 m (b) 0.003kg (c) 20,100s (d) $35,000$N (e) 3.10×10^5 kg

2. Express each number in scientific notation with the proper number of significant figures.

(a) $\dfrac{6.32 \times 10^4}{530 \times 10^3}$ (b) $(23 \times 10^7) \cdot (5.41 \times 10^5)$

3. Express each sum or difference with the proper number of significant figures.

(a) 2.034 + 42.1 + 84.20 (b) $7.214 - 5.21$

4. What is the area of the rectangle shown here?

5. Express each length in meters (scientific notation optional)

(a) 400nm (b) 320Mm (c) 12μm

(d) 127km (e) 56mm (f) 72Gm

(n) nano - 10^{-9}

(μ) micro - 10^{-6}

(m) milli - 10^{-3}

(k) kilo - 10^3

(M) mega - 10^6

(G) giga - 10^9