

Name: _____

Block: _____

Date: _____

Chemistry 11

Uncertainty Key

Assignment

1. a) 2 b) 3 c) 3 d) 2 e) 5 f) 3 g) 1 h) 4

2. a) 14.9 g² b) 180.3 kg c) 0.220 L d) 0.715 mL e) -0.001103 or -1.103×10^{-3} f) -610.8 ns
g) 1250 cal h) $-2.50 \times 10^2 \text{ g}^2$

3. a) 8.96×10^3 b) 2.3×10^{-4} c) 8.6×10^4 d) 7.5×10^7 e) 2.53×10^{-6}

4. a) 4.598×10^7 b) 2.53×10^{-4} c) correct

5. a) $d = 0.586 \text{ g/mL}$ b) $d = 8.36 \text{ g/cm}^3$, material is not iron. c) 359 g of gold d) 27.6 cm^3
e) 2.70 g/cm^3

6. a) $3.22 \pm 0.02 \text{ cm}$ b) $7.88 \pm 0.02 \text{ cm}$ c) $5.00 \pm 0.02 \text{ cm}$

7. a) $27.0 \pm 0.1 \text{ mL}$ b) $17.0 \pm 0.1 \text{ mL}$ c) $24.9 \pm 0.1 \text{ mL}$ d) $11.9 \pm 0.1 \text{ mL}$

8. a) $0.72 \pm 0.01 \text{ cm}$ b) $1.18 \pm 0.01 \text{ cm}$ c) $1.28 \pm 0.01 \text{ cm}$ d) $1.64 \pm 0.01 \text{ cm}$

9. a) $3.8 \pm 0.1 \text{ mm}$ b) $7.0 \pm 0.1 \text{ mm}$

10. a) $2.35 \pm 0.01 \text{ g}$ b) $0.77 \pm 0.01 \text{ mL}$ c) $156.5 \pm 0.1 \text{ g}$