Homework Answers Hill-Petrucci Pages 29-33 #50,52,54,56,58,83,90,91,105

50.   a.4   b.3   c.3   d.3   e.3   f.3

52.   a. 8.352×10^3m   b. 3.000×10^2s   c. 8.85×10^{-2}cm   d. 1.222×10^2s

54.   a. 318000m   zeros not significant
       b. 750. mL   zero is significant
       c. 0.00041s
       d. 92000m   the last zero is not significant - it is best to report this in scientific notation

56.   a. -10.6 cm   b. 1.0745 kg – when adding or subtracting all units must be identical

58.   a. 1.88 mm^3 b. 3.5×10^{-4} cm^2 c. -7.9×10^{-3}°C/s   d. 2.2×10^{-4}mg/cm^3

83. 2.36×10^5 nails

90.   a. 5.178 ±0.008m
       b. area = 1.39 m^2, % error = 0.3% absolute error = 0.004 m^2
       c. absolute error occurs in the fourth sig. fig.. The rules we learned would only allow 3.

91.   All balances are acceptable - volume is the limiting measurement.