6   DISTANCE MEASUREMENT

Asterisks $^{(*)}$ indicate problems that have partial answers given in Appendix G.

6.1   What distance in travel corresponds to 1 μsec of time for electromagnetic energy?

0.299792 m = 299,792,458(0.000001)

6.2*   A student counted 92, 90, 92, 91, 93, and 91 paces in six trials of walking along a course of 200 ft known length on level ground. Then 85, 86, 86, and 84 paces were counted in walking four repetitions of an unknown distance AB. What is (a) the pace length and (b) the length of AB?

(a) pace length = 200(6)/(92+90+92+91+93+91) = **2.18 ft/pace**

(b) AB = (85+86+86+84)2.18/4 = **186 ft**