

Turn in starred problems Thursday 10/30/2008.

Section 9.9: 4 (a), (d)*

Section 9.10: 2 (a), (f)*; 3

Section 17.2: 5 (a), (e), (g); 12 (a), (f)*, (k)*, (s)

Section 17.3: 1, 4 (a), (b)*, (m)*

Comments: (a) For the problems in Section 19.10: the best approximation to a given vector within the “span” of some vectors $\{\mathbf{e}_1, \mathbf{e}_2, \dots\}$ means the best approximation as a linear combination of those vectors.

(b) 17.2 12(k) is a bit tricky—think carefully. On the other hand, 17.3 4(l) is easy, if you use the formula $\sin^2 x = (1 - \cos 2x)/2$ corresponding to the hint for 4(l): with this it can be done by inspection. The two problems are related.