§ 13.2 Homework Solutions

3) [BB]

11) a) $\chi(K_n) = n$ since every vertex must be a different colour.
$$\text{So } \chi(K_{14}) = 14$$

$\chi(K_{m,n}) = 2$ since any bipartite graph has chromatic number 2.

b) for an even cycle, 2 colours will do (alternate around the cycle)
for an ~~even~~ odd cycle this won't work and we need a 3rd colour.

$$\text{So } \chi(G_1) = 2 \quad \text{and} \quad \chi(G_2) = 3.$$

16) [BB].