Turn in starred problems (and only those) on Wednesday 10/29/2008.

Section 21

- 12(c). The hint in the text works, but so does a straightforward ϵ-δ proof. (This is really more an analysis problem than a topology problem). Note that we proved in class the continuity of the product function $f : \mathbb{R} \times \mathbb{R} \to \mathbb{R}$ with $f(x, y) = xy$; combining that result with the result of this exercise gives continuity of general quotients.

Section 23

- 1, 2, 5*

- 6*. The *boundary* Bd A of a set A is defined in problem 19 of Section 17; you can use any properties stated there.

- 8

Section 24

- 1*, 4