

4.2.3 Problem: Show that the corresponding condition for H^1 -conforming finite elements is continuity of the function. In particular, this implies continuity at vertices.

4.2.40 Problem: The dimension of the space $BDM_{[k]}$ is

$$\dim BDM_{[k]} = (k + 1)(k + 2) + 2. \quad (6)$$

The element in Definition 4.2.38 is unisolvent.

5.0.11 Problem: Prove that the norm defined in (5.9) is indeed a norm on V_h .

5.0.13 Problem: Prove Lemma 5.0.12.