Maths HYP Summary – Sample Format

SUMMARY
(Nature and scope of the written report)
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(Statement of the author's contributions)
Example 1:
Theorem 3.5 is new and is a partial converse of the Buck-Cai Theorem ([2], page 124).
Theorem 4.1 is a slight generalization of Theorem 1.6 in Bukhill ([3], page 96), and the
proof is modelled on Bukhill's proof.

Example 2:
In [5] it is stated, without proof, that the converse of Theorem 3.2 is false, and this is
substantiated by a counterexample, see Example 5.3. In the proof of Theorem 4.2, I have
made use of a perturbation technique which avoids the lengthy calculations used in ([5],
page 135, and [8], page 436).

Example 3:
I have obtained a new representation (Theorem 3.2) for the multivariate B-splines
which is analogous to the divided difference representation in the one-dimensional case.
A comparison of the computational efficiency of the methods available for the
evaluation of multivariate B-splines and their integrals is studied in Section 3. Two
computer programmes have been written and they are included in the Appendix.