As Fig. 2c (2e) is the image of Fig. 2a (2d) in the α-symmetry and the lower side of Fig. 2f is the image of the upper side of Fig. 2d in the β-symmetry, every possible shape of the path P with 5-valent exceptional vertices u_1, u_2 leads to a contradiction.

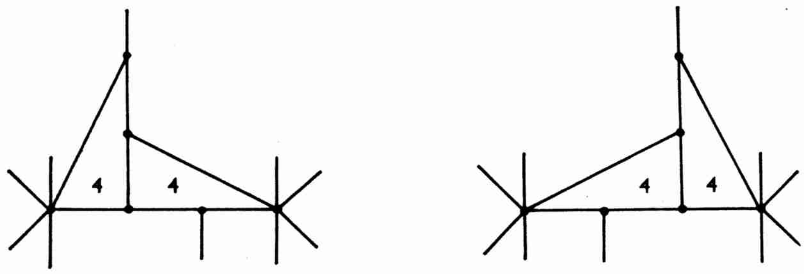

Fig. 7a, b.

b) and c) If at least one exceptional vertex is 4-valent, a contradiction with the emptiness of $M(3, 5; 0, 1; 0)$ or $M(3, 5; 0, 2; 0, \bar{0})$ can be reached quite analogously as in the preceding case by subdividing suitably the faces lying on one side of the path P. That is why the corresponding figures are omitted in this paper.

So if a complex with multi-3-valent vertices and multi-5-gonal faces has two exceptional vertices u_1, u_2 and no more exceptional cells, no path of length 3 joining u_1 and u_2 can exist; our Theorem is proved.

3. Remark. The assertion of Theorem does not hold only for cell-complexes, but for a much wider class of decompositions of the sphere, namely for maps whose countries are open discs.

References

[1] *D. W. Crowe:* Nearly regular polyhedra with two exceptional faces, Lecture Notes in Mathematics, *110* (1969), 63—76.

[2] *B. Grünbaum:* Convex Polytopes, Interscience 1967.

[3] *M. Horňák* and *E. Jucovič*: Nearly regular cell-decompositions of orientable 2-manifolds with at most two exceptional cells, Math. Slov. *27* (1977), 73—89.

[4] *J. Malkevitch:* Properties of planar graphs with uniform vertex and face structure, Mem. Amer. Math. Soc. *99* (1970).

Author's address: 041 54 Košice, Komenského 14 (Katedra geometrie a algebry Prírodovedeckej fakulty UPJŠ).