

A generator for each edge

Two relations for each crossing

Example:

$\pi_1(K^c) = \langle \alpha_1, \dots, \alpha_6 \rangle /$

renaming $\alpha_1 = \alpha; \alpha_5 = \beta; \alpha_3 = \gamma$ we get

$\pi_1(K^3) = \langle \alpha, \beta, \gamma \rangle /$

Problem 6 (10 points). If B is a nice space and U its universal cover, show that U is a covering of every connected covering X of B .