APPENDIX B

HILBERT'S POSTULATES

The undefined entities are *points* (designated by A, B, C, etc.), *lines* (designated a, b, c, etc.), and *planes* (designated α, β, γ, etc.). There are in addition the relations *lies on*, *between*, and *congruent* (whose exact meanings will be supplied by the postulates).

The following five groups of axioms constitute Hilbert's postulates for *space* (i.e., solid Euclidean) *geometry*.* Hilbert's postulates for *plane geometry* are obtained by omitting all phrases and sentences which appear below enclosed within brackets. When Hilbert says two, three, or more points, lines, or planes, he always intends that these are distinct points, lines, or planes. If A is a point

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