



A University of Sussex DPhil thesis

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Arcs in a Finite Projective Plane - Errata

In Table 3.2, the number of inequivalent complete $(16, 3)$ -arcs is given as 1573677; this is an error, 1573677 is the number of such arcs that are stabilized by the automorphism group \mathbf{Z}_1 . This error is carried through to the number of inequivalent incomplete $(16, 3)$ -arcs, also in Table 3.2, to the number of complete $(16, 3)$ -arcs that are stabilized by the automorphism group \mathbf{Z}_1 , given in Table 3.3, and to the number of incomplete $(16, 3)$ -arcs that are stabilized by the automorphism group \mathbf{Z}_1 , given in Table 6.4. The error in Table 3.3 is duplicated in Table 6.2.

Therefore, in Table 3.3, the entry $\mathbf{Z}_1 : 1\ 572\ 804$ is to be replaced by $\mathbf{Z}_1 : 1\ 573\ 677$.

In Table 3.2, the entry $16 \mid 1\ 573\ 677$ is to be replaced by $16 \mid 1\ 574\ 490$ and the entry $16 \mid 31\ 342\ 655$ is replaced by the entry $16 \mid 31\ 341\ 842$.

In Table 6.2($n = 16$), the entry $\mathbf{Z}_1(133 : \{1, 2\}) : 1\ 572\ 864$ is to be replaced by $\mathbf{Z}_1(133 : \{1, 2\}) : 1\ 573\ 677$.

In Table 6.4($n = 16$), the entry $\mathbf{Z}_1(133 : \{1, 2\}) : 31\ 333\ 540$ is to be replaced by $\mathbf{Z}_1(133 : \{1, 2\}) : 31\ 332\ 727$.

There is a second error; an entry in Table 6.3 needs to be moved to Table 6.1.

In Table 6.3($n = 10$), the entry $\mathbf{D}_{10}(15 : 2) : 1$ is to be removed.

In Table 6.1($n = 10$), the entry $\mathbf{D}_{10}(15 : 1) : 1$ is to be added.

Typographic Errors

The number in Table 3.2($n = 12$) is 15 291 647, not 15 291 641.

In Table 6.1($n = 8$), the entry $\mathbf{Z}_2 \times \mathbf{Z}_2(43 : 2) : 1^c$ is to be replaced by $\mathbf{Z}_2 \times \mathbf{Z}_2(43 : 2) : 2 - 1^c$

Note

These errors occurred in the manual process of translating the output of the algorithm described in Chapter 3 and not as a result of an error in the algorithm. They do not effect the results obtained by the algorithm described in Chapter 4.