Table 10: Calculations for 3 and 4 branch points

| $r$ | $v$ | primes | congruence | #equiv classes |
|---|---|---|---|---|
| 3 | 1 | 2 | | 0 |
| 3 | 1 | 3 | | 1 |
| 3 | 1 | $\beta_3(p) = 0$ | $p = 5 \bmod 6$ | $\frac{1}{6}(p+1)$ |
| 3 | 1 | $\beta_3(p) = 2$ | $p = 1 \bmod 6$ | $\frac{1}{6}(p+5)$ |
| 3 | 2 | all | | 1 |
| 4 | 1 | $2, 3$ | | 1 |
| 4 | 1 | $\beta_4(p) = 0$ | $p = 7, 11 \bmod 12$ | $\frac{1}{24}(p^2 + 6p + 5)$ |
| 4 | 1 | $\beta_4(p) = 2$ | $p = 1, 5 \bmod 12$ | $\frac{1}{24}(p^2 + 6p + 17)$ |
| 4 | 2 | 3 | | 2 |
| 4 | 2 | $\beta_3(p) = 0, \beta_4(p) = 0$ | $p = 11 \bmod 12$ | $\frac{1}{24}(p^2 + 10p + 9)$ |
| 4 | 2 | $\beta_3(p) = 2, \beta_4(p) = 0$ | $p = 7 \bmod 12$ | $\frac{1}{24}(p^2 + 10p + 25)$ |
| 4 | 2 | $\beta_3(p) = 0, \beta_4(p) = 2$ | $p = 5 \bmod 12$ | $\frac{1}{24}(p^2 + 10p + 21)$ |
| 4 | 2 | $\beta_3(p) = 2, \beta_4(p) = 2$ | $p = 1 \bmod 12$ | $\frac{1}{24}(p^2 + 10p + 37)$ |
| 4 | 3 | all | | 1 |

$r = \#$ branch points, $v =$ $p$-rank

*either trivial or cyclic of order* $5$*. If* $G^h$ *is trivial,* $G^e = G$*, so Proposition 4.1 implies there is just one epimorphism from* $\Gamma$ *onto* $G$*. Else, the image is cyclic of order* $5$*. In this case, we apply Corollary 2.9. For the hyperbolic part, observe that Corollary 3.2 tells us there will be a single epimorphism arising from* $\Gamma$ *with signature* $(1; -)$ *onto* $G^h$*. For the elliptic part, Example 5.2 below shows that all epimorphisms from* $\Gamma$ *with signature* $(0; 5, 5, 5)$ *onto* $G^e$ *are equivalent. Thus there is just one epimorphism arising from the elliptic part. Therefore, in total, there are* $2 + 1 + 1 * 1 = 4$ *conjugacy classes of subgroups isomorphic to* $G$ *in* $\mathcal{M}_{26}$*.*

**Example 5.2** *We can use our results to enumerate the equivalence classes of totally ramified actions for 3 or 4 branch points. Complete results for these cases are given in the Table 10.*

The techniques and results developed in the previous examples allow us to develop some further results for general families of signatures and groups.