**Numbers of solutions for number of groups=3, group size=3, number of weeks=3**

**Model 1:**

with all symmetries resolved: 36

with all symmetries resolved except week symmetry: 72

with all symmetries resolved except between-group symmetry: 864

with all symmetries resolved except in-group symmetry: 1162368

with all symmetries resolved except player symmetry: 3360

**Model 2:**

with all symmetries resolved: 36

with all symmetries resolved except week symmetry: 72

with all symmetries resolved except between-group symmetry: 1296

with all symmetries resolved except player symmetry: 3360

**Model 3:**

with all symmetries resolved: 36

with all symmetries resolved except week symmetry: 72

with all symmetries resolved except between-group symmetry: 1296

with all symmetries resolved except player symmetry: 3360

**Some experiments with different numbers of groups, group size and number of weeks:**

3,3,4 - 12 solutions

3,3,5 – unsatisfiable

(max number of weeks = 4 for 3 groups and 3 players in each group )

3,4,2 – unsatisfiable

(max number of weeks = 1 for 3 groups and 4 players in each group )

3,5,2 – unsatisfiable

(max number of weeks = 1 for 3 groups and 5 players in each group )

4,4,2 - 13824 solutions

4,4,3 - 165888 solutions

4,4,4 - 4,4,5 - some solutions(too long to obtain the number of all solutions)

4,4,6 – unsatisfiable

(max number of weeks = 5 for 4 groups and 4 players in each group )

4,5,2 - unsatisfiable

(max number of weeks = 1 for 4 groups and 5 players in each group )

5,5,2 - 5,5,3 - 5,5,4 - 5,5,5 - 5,5,6 - some solutions

5,5,7 – unsatisfiable

(max number of weeks = 6 for 5 groups and 5 players in each group )