MATH 4341 – Combinatorial Design Theory   Assignment #9
Winter 2013

Instructions

- Answer each question completely; justify your answers.
- This assignment is due at 15:00 on Monday April 1st in Assignment Box #48.

1. Construct a simple $T(2, 13)$.

2. Construct a simple $T(2, 12)$.

3. Construct a simple $T(2, 9)$.

4. (a) Find a difference partition for S_{13}.

   (b) Use this partition to construct a cyclic STS(13).

5. (a) Find a difference partition for S_{31}.

   (b) Use this partition to construct the starter blocks of a cyclic STS(31).

6. (a) Find a difference partition for S'_{33}.

   (b) Use this partition to construct the starter blocks of a cyclic STS(33).