

Cantor: Assignment #3

Let T be the set of ways to represent 10 as the sum of four positive integers. We will consider two representations as the same if you can get from one to the other by a reordering. In fact, to avoid this, we just require that the terms in the sum must either stay the same or decrease.

Let J be the set of ways to represent 10 as a sum of positive integers (not necessarily four of them), where the biggest number used is 4. Again, order should not be important. If you wish, you can avoid this by assuming that the terms in the sum must either stay the same or decrease.

Find and describe a matching between the elements of T and the elements of J .

You should describe your matching in clear enough language that someone from our class who has not yet tried this exercise can read and understand your work.

Hint: If you are feeling stuck, you might find it useful to think about dot pictures.

Specifications for Grading

To earn credit, this assignment must

- be typed, of no more than one page in length;
- address the prompt above;
- conform to reasonable standards for grammar, spelling, and usage of the English language with minimal errors. (You may consider seeking help on writing from the Writing Center in the Academic Learning Center. <http://www.uni.edu/unialc/writing-center>);
- be turned in by 3pm on Friday, April 22.