

Math Circle Explorations: Session 3

Problem 2. We call an infinite set “countable” if it can be counted, that is we can arrange all the elements in an order and say a_1 is the first element, a_2 is the second element, ... and so on (this list should exhaust all elements!). Consider all subsets (that is the power set) of natural numbers \mathbb{N} . Is it countable?