

# The strength of Ramsey theorem for coloring $\omega$ -large sets

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We work with the notion of  $\alpha$ -largness for finite sets of natural numbers. It is known that the following Ramsey-type theorem holds: for each coloring  $C$  of  $\alpha$ -large sets of natural numbers there exists an infinite set  $Y$  which is  $C$ -homogenous.

We will estimate the strength of this theorem for  $\alpha$  being  $\omega$ . We show that it is equivalent to existence of  $\omega$  jumps for any set  $X$ .

The arithmetical consequences of this theories are the same as arithmetic with  $\omega$  many truth predicates and full induction in the extended language.