Justify all answers!

(6 pts)

(1) Find an injection $f : \mathbb{N} \to \mathcal{P}(\mathbb{N})$.

    (a) [+4] Prove that your function is injective.

    (b) [+2] Prove that your function is *not* surjective.[1]

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[1]Yes! Somehow I know that no matter what function you picked, it won't be surjective!