

2nd set of Problems

#4.a.

Let $f((a, b)) = a + b$ for all $\mathbb{N} > 0$. $f((a, b)) > a$

since $b \geq 1$ and $f((a, b)) > b$ since $a \geq 1$.

So, let's consider 1. If $f((a, b)) = 1$, we can

say $1 > a$ and $1 > b$. Neither is possible in

\mathbb{N}^+ . Therefore $f((a, b)) = a + b$ is not onto.