

Subject 24.242. Logic II. Sample problems from the first homework, due February 26

1. Write down a bounded formula whose extension is the set of triples $\langle x, y, z \rangle$ such that x, y , and z are positive integers and z is a common divisor of x and y .
2. Define, for F , a finite set of natural numbers, $\text{Code}(F)$ to be $\sum_{x \in F} 2^x$, so that F is the set of places in the binary decimal expansion of $\text{Code}(F)$ where 1s appear. Give the Arabic numeral for $\text{Code}(\{2, 4, 6, 8\})$.