

# Problems in Math and Computer Science

Compiled and to be solved by Chad Estioco



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# Chapter 1

## 2015.1

1. Prove that

$$\exists x \forall y P(x, y) \leftrightarrow \forall y \exists x P(x, y) \quad (1.1)$$



## Chapter 2

# Miscellaneous Problems

(I.e., problems that were compiled before and left unsolved)

1. Let  $J(n)$  be the Josephus Numbers[CA-KNUTH].





# Bibliography

[CA-KNUTH] Knuth, D. *Concrete Mathematics*

[MCS-LEHMAN] Lehman E. *Mathematics for Computer Science*