

CPSC-406 Report

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Abstract

Consisting of CPSC 406 Material at Chapman University with Professor Alexander Kurz. This report will include an Introduction, Weekly Homework, and a Paper on the group project, which is done throughout the semester.

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1 Introduction

This report...

2 Homework

This section contains solutions to homework.

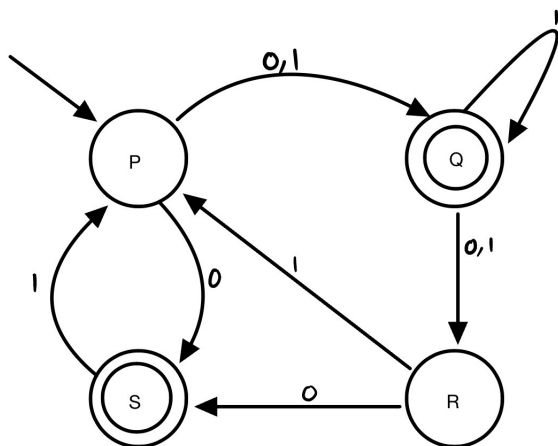
2.1 Week 2/3 (Homework 1)

This week's homework was to solve the following NFA:

Exercise 2.3.2: Convert to a DFA the following NFA:

	0	1
$\rightarrow p$	$\{q, s\}$	$\{q\}$
$*q$	$\{r\}$	$\{q, r\}$
r	$\{s\}$	$\{p\}$
$*s$	\emptyset	$\{p\}$

This is the following NFA but drawn out:



From this NFA, the following DFA table can be made:

	0	1
$\rightarrow \{p\}$	$\{q, s\}$	$\{q\}$
$*\{p, s\}$	$\{r\}$	$\{p, q, r\}$
$*\{q\}$	$\{r\}$	$\{q, r\}$
$\{r\}$	$\{s\}$	$\{p\}$
$*\{p, q, r\}$	$\{q, r, s\}$	$\{p, q, r\}$
$*\{q, r\}$	$\{r, s\}$	$\{p, q, r\}$
$*\{s\}$	\emptyset	$\{p\}$
$*\{q, r, s\}$	$\{r, s\}$	$\{p, q, r\}$
$*\{r, s\}$	$\{s\}$	$\{p\}$
\emptyset	\emptyset	\emptyset

