Homework 4.2

Problem 1

I must prove that no string is accepted by one over the other

State	A	B
{r0,s0}	{r1+,s1+}	{r2+,s2+}
{r1+,s1+}	{r0,s2+}	

At this point we can say that these are not the same as once the string is AA S
will accept and R will not

Problem 2

State	R	S
""	t	t
a	t	t
a+	t	t
b	t	t
b+	t	t
ab+	t	t
ba+	f	f

There exists no such case in which these DFA's represent different values

Problem 3

R must not accept that which s does

State	R	S
a	t	t
b	f	f
a+	t	t
b+	f	f
b+a	t	t

R is a subset of S in the sense that they are the same.

Problem 4

Starting with r0 we will conduct a bredth first search and see if it comes to an accepting state and if so notate the first route.

r0 -> r4 && -> r5 r4 -> no unmarked nodes r5 -> no unmarked nodes

No accepting state can be found