

# MINIMIZACIÓN/EQUIVALENCIA EN JFLAP

1. Minimiza el autómata  $A1 = (\{0,1\}, \{q_0, q_1, q_2, q_3, q_4\}, f, q_0, \{q_1, q_2\})$  en donde  $f$  se define como:

$$f(q_0, 0) = q_3$$

$$f(q_0, 1) = q_2$$

$$f(q_1, 0) = q_4$$

$$f(q_1, 1) = q_1$$

$$f(q_2, 0) = q_0$$

$$f(q_2, 1) = q_3$$

$$f(q_3, 0) = q_0$$

$$f(q_3, 1) = q_2$$

$$f(q_4, 0) = q_4$$

$$f(q_4, 1) = q_1$$

2. Indica cuáles de los siguientes autómatas son equivalentes entre sí:

- $AF1 = (\{a,b\}, \{p,q,r,s,t,u\}, f_1, p, \{q,r\})$
- $AF2 = (\{a,b\}, \{p,q,r,s,t,u\}, f_2, p, \{u\})$
- $AF3 = (\{a,b\}, \{p,q,r,s,t,u\}, f_3, p, \{s,t,u\})$
- $AF4 = (\{a,b\}, \{p,q,r,s,t,u\}, f_4, p, \{r,s\})$
- $AF5 = (\{a,b\}, \{p,q,r,s,t\}, f_5, p, \{r,s\})$

$f_1$	a	b
p	q	p
q	r	s
r	q	t
s	t	u
t	s	u
u	q	u

$f_2$	a	b
p	q	u
q	r	t
r	s	t
s	r	t
t	u	s
u	u	q

$f_3$	a	b
p	u	q
q	t	r
r	s	r
s	t	r
t	u	q
u	s	p

$f_4$	a	b
p	r	q
q	r	q
r	s	t
s	r	t
t	t	q
u	u	p

$f_5$	a	b
p	q	r
q	q	t
r	s	q
s	r	q
t	r	q