power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , □, L)	$(q_2, \square, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	$(q_2, \square, \mathcal{R})$ (q_3, X, \mathcal{R})	(q_2, X, \mathcal{R})
q 3	(q_5, L, \mathcal{L})	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
9 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
9 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?		0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , _, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, \Box, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

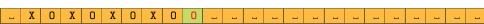
power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, \Box, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

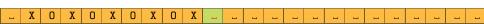
power of 2?		0	Х
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, \square, \mathcal{R})$	(q _{re} , ∟, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, R)
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q_5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

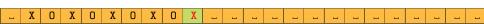
power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



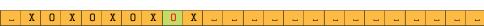
power of 2?	u u	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \square, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	(q_5, L, \mathcal{L})	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



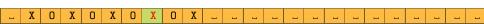
power of 2?	_	0	Х
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, _, \mathcal{R})$	(q _{re} , _, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, R)
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, R)
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	_	0	Х
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, _, \mathcal{R})$	(q _{re} , ∟, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	_	0	Х
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, _, \mathcal{R})$	(q _{re} , _, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, R)
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, R)
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?		0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



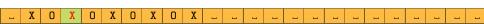
power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, _, \mathcal{R})$	(q _{re} , _, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, R)
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	_	0	Х
$ ightarrow q_1$	(q _{re} , □, ℒ)	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , _, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, R)
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, \mathcal{R})
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

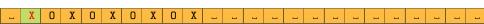


power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, _, \mathcal{R})$	(q _{re} , _, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, R)
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

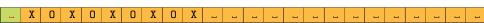


power of 2?		0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , ∟, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



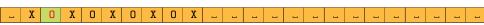
power of 2?	<u>.</u>	0	Х
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, _, \mathcal{R})$	(q _{re} , ∟, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



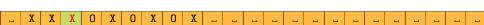
power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , ∟, ∠)
q ₂	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
9 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \lrcorner, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , □, ℒ)	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , ∟, ∠)
q_2	$(q_{re}, \square, \mathcal{L})$ $(q_{acc}, \square, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, R)
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, _, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \lrcorner, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

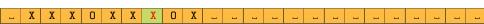


power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, _, \mathcal{R})$	(q _{re} , _□ , L)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , □, ℒ)	$(q_2, _, \mathcal{R})$	(q _{re} , _□ , L)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q_5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , ∟, ∠)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

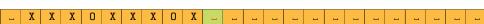


power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , _□ , L)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q_5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

power of 2?	_	0	X
$ ightarrow q_1$	(q _{re} , ∟, ∠)	$(q_2, _, \mathcal{R})$	(q _{re} , _□ , L)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \square, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



power of 2?	u u	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	(q _{re} , _□ , L)
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, R)
q 5	$(q_2, \lrcorner, \mathcal{R})$	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})



Halted (rejected) (Accept: q_{acc} , Reject: q_{re})

power of 2?	<u>.</u>	0	X
$ ightarrow q_1$	$(q_{re}, _, \mathcal{L})$	$(q_2, \lrcorner, \mathcal{R})$	$(q_{re}, \Box, \mathcal{L})$
q_2	$(q_{acc}, _, \mathcal{R})$	(q_3, X, R)	(q_2, X, \mathcal{R})
q 3	$(q_5, _, \mathcal{L})$	$(q_4, 0, \mathcal{R})$	(q_3, X, \mathcal{R})
q_4	$(q_{re}, _, \mathcal{R})$	(q_3, X, R)	(q_4, X, \mathcal{R})
q 5	(q_2, \Box, \mathcal{R})	$(q_5, 0, \mathcal{L})$	(q_5, X, \mathcal{L})

