$$Q4)$$

q	r_1	r_2	r	s_1	s_2	s	t_1	t_2	t
1	144	89	55	1	0	1	0	1	-1
1	89	55	34	0	1	-1	1	-1	2
1	55	34	21	1	-1	2	-1	2	-3
1	34	21	13	-1	2	-3	1	-3	4
1	21	13	8	2	-3	5	-2	4	-5
1	13	8	5	-3	5	-8	3	-5	9
1	8	5	3	5	-8	13	-5	9	14
1	5	3	2	-8	13	-21	8	-14	22
1	3	2	1	13	-21	34	-13	22	-35
2	2	1	0	-21	34	-110	21	-35	110
	1		0	34	-110		-35	110	

$$s = 34 \quad ; \quad t = -34$$