J_1

$2^3.7.3$	1045	1a + 56ab + 76a + 77bc + 120abc + 133a + 209a	11

Character Numbers: [1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 15]

J_1	S_1	S_2	S_3	S_4	S_5	S_6
χ_1	1	8	28	56	56	56
χ_2	1	$-2+r5$	$1-3r5$	$1-4r5$	$-11+r5$	$15+7b5$
χ_3	1	$-2-r5$	$1+3r5$	$1+4r5$	$-11-r5$	$8-7b5$
χ_4	1	2	11	-4	4	-2
χ_5	1	$-2+r5$	-7	$1-4r5$	$-4-4r5$	$-4+r5$
χ_6	1	$-2-r5$	-7	$1+4r5$	$8b5$	$-4-r5$
χ_7	1	$1-5c19-c19*2$	$-2+c19-c19*2$	$4c19-c19*2$	$2+c19+4c19*2$	$5+4c19+7c19*2$
χ_8	1	$6+4c19+5c19*2$	$-3-2c19-c19*2$	$-4-5c19-4c19*2$	$1+3c19-c19*2$	$1+3c19-4c19*2$
χ_9	1	$2+c19-4c19*2$	$-1+c19+2c19*2$	$1+c19+5c19*2$	$-2-4c19-3c19*2$	$-2-7c19-3c19*2$
χ_{10}	1	3	1	1	4	9
χ_{11}	1	-3	1	1	4	3

J_1	S_7	S_8	S_9	S_{10}	S_{11}
χ_1	168	168	168	168	168
χ_2	$-6r5$	$-18-3b5$	$9-9b5$	$12b5$	$15+15b5$
χ_3	$6r5$	$-15+3b5$	$18+9b5$	$-6-6r5$	$-15b5$
χ_4	-24	-6	12	18	-12
χ_5	3	$3+9r5$	$3+3r5$	$18-3r5$	$-12-3r5$
χ_6	3	$3-9r5$	$-6b5$	$18+3r5$	$-9+6b5$
χ_7	$-8-3c19-4c19*2$	$7-2c19-3c19*2$	$-6+c19+c19*2$	$-2-2c19-2c19*2$	$2+c19$
χ_8	$-5-c19+3c19*2$	$9-c19+2c19*2$	$-7-c19*2$	$2c19*2$	$1-c19-c19*2$
χ_9	$-4+4c19+c19*2$	$10+3c19+c19*2$	$-7-c19$	$2c19$	$2+c19*2$
χ_{10}	15	-4	-14	-1	-15
χ_{11}	-9	14	-8	-7	3

Ramanujan Graphs: [2], [2, 3, 4], [2, 3, 4, 5], [2, 3, 4, 5, 6], [2, 3, 4, 5, 6, 7], [2, 3, 4, 5, 6, 7, 8], [2, 3, 4, 5, 6, 7, 8, 9], [2, 3, 4, 5, 6, 7, 8, 9, 10], [2, 3, 4, 5, 6, 7, 8, 9, 10, 11], [2, 3, 4, 5, 6, 7, 8, 9, 11], [2, 3, 4, 5, 6, 7, 8, 10], [2, 3, 4, 5, 6, 7, 8, 10, 11], [2, 3, 4, 5, 6, 7, 8, 11], [2, 3, 4, 5, 6, 7, 9], [2, 3, 4, 5, 6, 7, 9, 10], [2, 3, 4, 5, 6, 7, 9, 10, 11], [2, 3, 4, 5, 6, 7, 9, 11], [2, 3, 4, 5, 6, 7, 10], [2, 3, 4, 5, 6, 7, 10, 11], [2, 3, 4, 5, 6, 7, 11], [2, 3, 4, 5, 6, 8], [2, 3, 4, 5, 6, 8, 9], [2, 3, 4, 5, 6, 8, 9, 10], [2, 3, 4, 5, 6, 8, 9, 10, 11], [2, 3, 4, 5, 6, 8, 9, 11], [2, 3, 4, 5, 6, 8, 10], [2, 3, 4, 5, 6, 8, 10, 11], [2, 3, 4, 5, 6, 8, 11], [2, 3, 4, 5, 6, 9], [2, 3, 4, 5, 6, 9, 10], [2, 3, 4, 5, 6, 9, 10, 11], [2, 3, 4, 5, 6, 9, 11], [2, 3, 4, 5, 6, 10], [2, 3, 4, 5, 6, 10, 11], [2, 3, 4, 5, 6, 11], [2, 3, 4, 5, 7], [2, 3, 4, 5, 7, 8], [2, 3, 4, 5, 7, 8, 9], [2, 3, 4, 5, 7, 8, 9, 10], [2, 3, 4, 5, 7, 8, 9, 10, 11], [2, 3, 4, 5, 7, 8, 9, 11], [2, 3, 4, 5, 7, 8, 10], [2, 3, 4, 5, 7, 8, 10, 11], [2, 3, 4, 5, 7, 8, 11], [2, 3, 4, 5, 7, 9], [2, 3, 4, 5, 7, 9, 10], [2, 3, 4, 5, 7, 9, 10, 11], [2, 3, 4, 5, 7, 9, 11], [2, 3, 4, 5, 7, 10], [2, 3, 4, 5, 7, 10, 11], [2, 3, 4, 5, 7, 11], [2, 3, 4, 5, 8], [2, 3, 4, 5, 8, 9

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