	Input data	Metrics	52	Weeke	Manual (h)	Manual cost Er	nv cost	Manual summary	Automation (Automat	Env. cost Automation summary	Manual budget Automation budget	ROI
Manual efforts per 1 execution of test suite(s)	80	hours	80	1	18.46153846	184.6153846	50	234,6153846	40 480	50 530	234,6153846 530	-0.5573294
Actual number of test suite executions	6	per year	6	2	.,	. ,	50		40 480	50 530	469,2307692 1060	-0,5573294
Hourly rate (Manual Engineer)	10	Ś	10	3	18.46153846	184.6153846	50		40 480	50 530	703,8461538 1590	-0,5573294
Hourly rate (Automation Engineer)	12	Ś	12	4	18,46153846	. ,	50		40 480	50 530	938,4615385 2120	-0,5573294
Expected number of executions	12	per year	12	5	18,46153846		50		40 480	50 530	1173,076923 2650	-0,5573294
·	640		640	6	18.46153846		50		40 480	50 530	1407,692308 3180	-0,5573294
Estimates for automation of test suite(s)	640	hours	160	7	18.46153846	184,6153846	50		40 480	50 530	1642,307692 3710	-0,5573294
Automation implementation: engineer(s) involvement	160	hours/month	24	8	18.46153846		50		40 480	50 530	1876,923077 4240	-0,5573294
(script maintanance is included)		,	50	9	18.46153846	184.6153846	50	234.6153846	40 480	50 530	2111,538462 4770	-0,5573294
Automation support: efforts for scripts support, result	24	hours	50	10	18.46153846	184.6153846	50		40 480	50 530	2346,153846 5300	-0,5573294
analyzis and execution per month (after implementation)				11	18.46153846	184.6153846	50		40 480	50 530	2580,769231 5830	-0,5573294
Cost of environment for Manual testing	50	\$ / month		12	.,	,	50		40 480	50 530	2815,384615 6360	-0,5573294
Cost of environment for Automation testing	50	\$ / month		13	18,46153846		50		40 480	50 530	3050 6890	-0,5573294
				14	18,46153846		50		40 480	50 530	3284,615385 7420	-0,5573294
				15	18.46153846	184.6153846	50		40 480	50 530	3519.230769 7950	-0,5573294
- Manual hudas	t - Automation budge			16	18.46153846	184.6153846	50	234,6153846	40 480	50 530	3753,846154 8480	-0,5573294
- Maridal budge	- Automation budge	ı		17	18.46153846		50		5,53846153866,4615	50 116,46153	3988.461538 9010	-0,5573294
20000				18	18.46153846		50	234,6153846	5,53846153866,4615	50 116,46153	4223,076923 9126,4615	-0,5373294
				19	18.46153846	184.6153846	50		5,53846153866,4615	50 116,46153	4457,692308 9242,9230	-0,53727116
				20	18,46153846	. ,	50		5,53846153866,4615	50 116,46153	4692,307692 9359,3846	-0,51771833
				20	18,46153846	,	50		5,53846153866,4615	50 116,46153	4926,923077 9475,8461	-0,4986521
					18,46153846	. ,			.,			
15000				22	18,46153846	184,6153846	50 50	234,6153846 234,6153846	5,53846153866,4615 5,53846153866,4615	50 116,46153 50 116.46153	5161,538462 9592,3076	-0,46190858
					,	,					5396,153846 9708,7692	-0,44419794
				24	18,46153846	184,6153846 184,6153846	50 50		5,53846153866,4615 5,53846153866,4615	50 116,46153	5630,769231 9825,2307	-0,42690717
					18,46153846	,			-,	50 116,46153	5865,384615 9941,6923	-0,41002
10000				26	18,46153846	184,6153846	50		5,53846153866,4615	50 116,46153	6100 10058,153	-0,3935268
10000				27	18,46153846	184,6153846	50		5,53846153866,4615	50 116,46153	6334,615385 10174,615	-0,37740984
				28	18,46153846	184,6153846	50		5,53846153866,4615	50 116,46153	6569,230769 10291,076	-0,36165759
				29	18,46153846		50		5,53846153866,4615	50 116,46153	6803,846154 10407,538	-0,346257
				30	18,46153846	. ,	50	234,6153846	5,53846153866,4615	50 116,46153	7038,461538 10524	-0,33119901
5000				31	18,46153846	184,6153846	50		5,53846153866,4615	50 116,46153	7273,076923 10640,461	-0,31646978
5555				32	18,46153846	184,6153846	50	234,6153846	5,53846153866,4615	50 116,46153	7507,692308 10756,923	-0,30205949
				33	18,46153846	,	50		5,53846153866,4615	50 116,46153	7742,307692 10873,384	-0,28795789
				34	18,46153846		50		5,53846153866,4615	50 116,46153	7976,923077 10989,846	-0,27415516
				35	18,46153846	184,6153846	50		5,53846153866,4615	50 116,46153	8211,538462 11106,3076	-0,26064190
					18.46153846	184.6153846	50	234,6153846	5.53846153866.4615	50 116,46153	8446,153846 11222,7692	
0				36	10,40103040	. ,			.,	,	0110,100010 11222,7001	-0,24740911
10 20 30) 40	50	60	36 37	18,46153846	184,6153846	50	234,6153846	5,53846153866,4615	50 116,46153	8680,769231 11339,230	
10 20 30	40	50	60		.,	184,6153846 184,6153846	50 50	234,6153846 234,6153846	.,			-0,23444813
10 20 30	40	50	60	37	18,46153846	,		234,6153846	5,53846153866,4615	50 116,46153	8680,769231 11339,230	-0,24740911 -0,23444813 -0,22175069 -0,20930881
10 20 30	0 40	50	60	37 38	18,46153846 18,46153846	184,6153846	50	234,6153846 234,6153846	5,538461538 66,4615 5,538461538 66,4615	50 116,46153 50 116,46153	8680,769231 11339,230 8915,384615 11455,692	-0,23444813 -0,22175069
0 10 20 30	40	50	60	37 38 39	18,46153846 18,46153846 18,46153846	184,6153846 184,6153846	50 50	234,6153846 234,6153846	5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615	50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1534	-0,23444813 -0,22175069 -0,20930881 -0,19711487
0 10 20 30	40	50	60	37 38 39 40	18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846	50 50 50	234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615	50 116,46153 50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,230 8915,384615 11455,692 9150 11572,153 9384,615385 11688,615	-0,23444813 -0,22175069 -0,20930881
0 10 20 30	40	50	60	37 38 39 40 41	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615	50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,230 8915,384615 11455,692 9150 11572,153 9384,61535 11808,615 9619,230769 11805,076	-0,23444813 -0,22175069 -0,20930881 -0,19711487 -0,18516153 -0,17344173
0 10 20 30	40	50	60	37 38 39 40 41 42	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615	50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,692; 9150 11572,1531 9384,615385 11688,615; 9619,230769 11805,076; 9853,846154 11921,538	-0,23444813 -0,22175069 -0,20930881 -0,19711487 -0,18516153
0 10 20 30	40	50	60	37 38 39 40 41 42	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615 5,538461538 66,4615	50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,692; 9150 11572,1531 9384,615385 11688,615; 9619,230769 11805,076; 9853,846154 11921,538 10088,46154 12038	-0,2344481: -0,22175069 -0,2093088: -0,19711487 -0,18516153 -0,17344173 -0,16194870 -0,1506759
10 20 30	40	50	60	37 38 39 40 41 42 43	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,61535 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 11038,46154 112038 11323,07692 12154,4611	-0,23444813 -0,22175069 -0,20930881 -0,19711487 -0,18516153 -0,17344173 -0,16194870 -0,15067591 -0,13961710
0 10 20 30	40	50	60	37 38 39 40 41 42 43 44	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,230 8915,384615 11455,692 9150 11572,153 9384,615385 11888,615 9619,230769 11805,0761 9853,846154 11921,538 10038,46154 12038 10323,07692 12154,4611 10557,69231 12270,923	-0,23444813 -0,22175069 -0,20930881 -0,19711487 -0,1851615 -0,17344173 -0,16194870 -0,15067591 -0,13961710 -0,12876623
0 10 20 30	40	50	60	37 38 39 40 41 42 43 44 45	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,5384 10088,46154 12038 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,3844	-0,2344481: -0,2217506i -0,2093088: -0,1971148: -0,1851615: -0,1734417: -0,1619487i -0,1506759: -0,13961711 -0,1287662: -0,1181175i
0 10 20 30	40	50	60	37 38 39 40 41 42 43 44 45 46	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,692; 9150 11572,1531 9384,615385 11688,615; 9619,230769 11805,076; 9853,846154 11921,5384 10088,46154 12038 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,3844 11026,92308 12503,846	-0,2344481: -0,2217506: -0,2093088: -0,1971148: -0,1851615: -0,1734417: -0,1619487: -0,1506759: -0,1396171! -0,1287662: -0,1181175: -0,1076653i
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,61535 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 10038,46154 112038 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,384 111026,92308 12503,846 11261,53846 12620,3071	-0,2344481: -0,2217506: -0,2093088: -0,1971148: -0,1851615: -0,1734417: -0,1619487! -0,1506759: -0,1396171! -0,1287662: -0,1181175! -0,1076653!
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,230 8915,384615 11455,692 9150 11572,153 9384,615385 11868,615 9619,230769 11805,0761 9853,846154 11921,538 10323,07692 12154,461 10557,69231 12270,923 10792,30769 12387,384 11266,92308 12503,846 11261,53846 12620,307 11496,15385 12736,769	-0,2344481 -0,2217506 -0,2093088 -0,1971148 -0,1851615 -0,1734417 -0,1619487 -0,1396171 -0,1287662 -0,1181175 -0,1076653 -0,09740424 -0,08732913
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,5384 10088,46154 12038 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,3844 11026,92308 12503,846 11261,53846 12620,3071 11496,15385 12736,7699 11730,76923 12853,230	-0,2344481 -0,2217506 -0,2093088 -0,1971148 -0,1851615 -0,1734417 -0,1619487 -0,1530769 -0,1380717 -0,1287662 -0,1181175 -0,1076653 -0,09740424 -0,08732913 -0,07743496
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,538- 10088,46154 12038 10323,07692 12154,4611 10557,69231 12270,9231 10792,30769 12387,3844 11026,92308 12503,846 11261,53846 12620,3077 11496,15385 12736,7699 11730,76923 12853,230 11965,38462 12969,6921	-0,2344481 -0,2217506 -0,2217506 -0,1971148 -0,1851615 -0,1734417 -0,1506759 -0,1396171 -0,1287662 -0,1181175 -0,1076653 -0,09740424 -0,08732913 -0,07743496 -0,06771690
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50 50 50 50 5	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,230 8915,384615 11455,692 9150 11572,153 9384,615385 11868,615 9619,230769 11805,0761 9853,846154 11921,538 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,384 11026,92308 12503,846 11261,53846 12620,307 11496,15385 12736,769 11730,76923 12853,230 11965,38462 12969,692 12200 13086,153 12434,61538 13202,615	-0,2344481 -0,2217506 -0,2093088 -0,1971148 -0,1851615 -0,1734417 -0,1619487 -0,1506759 -0,1396171 -0,1287662 -0,1181175 -0,1076653 -0,09740424 -0,08732913 -0,0774690 -0,06771690 -0,0581702
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,615; 9619,230769 11805,076! 9853,846154 11921,538- 10088,46154 12038 10323,07692 12154,461! 10557,69231 12270,923 10792,30769 12387,3844 11026,92308 12503,846 11261,53846 12620,307; 11496,15385 12736,769; 11730,76923 12853,230 11965,38462 12969,692 12200 13086,153 12434,461538 13202,615 12669,23077 13319,076	-0,2344481 -0,2217506 -0,2093088 -0,1971148 -0,1851615 -0,1734417 -0,1619487 -0,1506759 -0,1396171 -0,1076653 -0,097043496 -0,09734991 -0,06771690 -0,0581702 -0,04879062
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 10088,46154 11923,538 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,384 111026,92308 12503,846 11261,53846 12620,3071 11496,15385 12736,7691 11730,76923 12853,230 11995,38462 12969,692 12200 13086,153 12434,61538 13202,6151 12669,23077 13319,0761 12903,84615 13435,538	-0,2344481 -0,2217506 -0,2093088 -0,1971148 -0,1851615 -0,1734417 -0,1506759 -0,1396171 -0,1287662 -0,1181175 -0,09740424 -0,0877313 -0,06771690 -0,0581702 -0,04879062 -0,04879062 -0,03957357
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	50 50 50 50 50 50 50 50 50 50	234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,3844 11026,92308 12503,846 11261,53846 12620,307 11496,15385 12736,769, 11730,76923 12853,230 11965,33462 12999,692 12200 13086,1531 12434,61538 13202,615 12696,23077 13190,0761 13190,7761 12903,84615 13435,538 13138,46154 13552	-0,2344813 -0,22175069 -0,20930881 -0,19711487 -0,18516153 -0,17344173 -0,16194877 -0,15067591 -0,13961710 -0,12876623 -0,017181750 -0,077434966 -0,067716900 -0,06817025 -0,038973576 -0,030514938
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	500 500 500 500 500 500 500 500 500 500	234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,230 8915,384615 11455,692 9150 11572,153 9384,61538 511688,615 9619,230769 11805,0761 9853,846154 11921,538 10323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,384 11026,92308 12603,846 11261,53846 12620,307 11496,15385 12736,769 11730,76923 12853,230 11965,38462 12969,692 12200 13086,153 12434,61538 13202,615 12669,23077 13319,076 12903,84615 13435,538 13138,46154 13552 13668,4611	-0,2344481 -0,2217506 -0,2093088 -0,1971148 -0,1851615 -0,1734417 -0,1619487 -0,1506759 -0,1396171 -0,1287662 -0,1181175 -0,1076653 -0,09740424 -0,08732913 -0,07741690 -0,0581702 -0,04879062 -0,03957493 -0,033051493 -0,02161067
0 10 20 30	40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846	500 500 500 500 500 500 500 500 500 500	234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 10088,46154 12038 10323,07692 12154,4611 10557,69231 12270,9231 10792,30769 12387,384 111261,53846 12620,307 11496,15385 12736,769 11730,76923 12858,230 11965,38462 12969,6921 12200 13086,1531 12434,61538 13202,615 12669,23077 13319,0761 12903,84615 13435,538 13138,46154 13552 13373,07692 13686,4611 13607,69231 13784,923	-0,23444813 -0,22175069 -0,2093088 -0,19711481 -0,18516152 -0,17344171 -0,16194871 -0,1506759 -0,13961711 -0,12876623 -0,097404244 -0,0872913 -0,077434966 -0,067716900 -0,05817025 -0,048790625 -0,039573576 -0,030514938
0 10 20 30	40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	500 500 500 500 500 500 500 500 500 500	234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 10383,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,384 111026,92308 12503,846 11261,53846 12620,3071 11496,15385 12736,769 117730,76923 12853,2301 11965,38462 12969,692 12200 13086,153 12434,61538 13202,6151 12669,23077 13319,0761 12903,84615 13455,538 13138,46154 13552 13373,07692 13668,4611 13607,69231 13784,923 13842,30769 13901,3844	-0,23444813 -0,22175069 -0,2093088 -0,19711481 -0,18516150 -0,17344171 -0,11806759 -0,13961711 -0,12876623 -0,097404244 -0,087329130 -0,067716900 -0,05817025 -0,048790623 -0,039573574 -0,030514933 -0,021610677 -0,012856855 -0,004249718
0 10 20 3(40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	18,46153846 18,46153846	184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846 184,6153846	500 500 500 500 500 500 500 500 500 500	234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 100323,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,3844 11026,92308 12503,846 11261,53846 12620,307 11496,15385 12736,769, 11730,76923 12853,230 11995,38462 12969,692 12200 13086,1531 12434,61538 13202,615 12669,23077 13319,0761 12903,84615 13435,538 13138,46154 13552 13373,07692 13688,4611 13607,69231 13784,9231 13842,30769 13991,3844 14076,92308 14017,846	-0,23444813 -0,22175069 -0,20930881 -0,19711487 -0,18516153 -0,17344173 -0,16194870 -0,15067591 -0,13961710 -0,12876623 -0,11811750 -0,097404244 -0,087329136 -0,097404244 -0,087329136 -0,0687176905 -0,05817025 -0,039573576 -0,030514938 -0,021810677 -0,012856855 -0,0042144081
0 10 20 30	40	50	60	37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846 18,46153846	184,6153846 184,6153846	500 500 500 500 500 500 500 500 500 500	234,6153846 234,6153846	5,538461538 66,4615. 5,538461538 66,4615.	50 116,46153 50 116,46153	8680,769231 11339,2301 8915,384615 11455,6921 9150 11572,1531 9384,615385 11688,6151 9619,230769 11805,0761 9853,846154 11921,538 10383,07692 12154,4611 10557,69231 12270,923 10792,30769 12387,384 111026,92308 12503,846 11261,53846 12620,3071 11496,15385 12736,769 117730,76923 12853,2301 11965,38462 12969,692 12200 13086,153 12434,61538 13202,6151 12669,23077 13319,0761 12903,84615 13455,538 13138,46154 13552 13373,07692 13668,4611 13607,69231 13784,923 13842,30769 13901,3844	-0,2344481: -0,2217506: -0,2093088: -0,1971148: -0,1851615: -0,1734417: -0,16194874 -0,1506759 -0,13961711 -0,1287662: -0,1811751 -0,10766531 -0,097404244 -0,0877231 -0,077434961 -0,067716909 -0,05817029 -0,048790629 -0,039573574 -0,030514931 -0,021610677 -0,012856855 -0,004249711

		64	18,46153846	184,6153846	50	234,6153846	5,53846153866,4615	50 116,46153	15015,38462	14483,692	0,03670972128
		65	18,46153846	184,6153846	50	234,6153846	5,53846153866,4615	50 116,46153	15250	14600,153	0,04450954152
		66	18,46153846	184,6153846	50	234,6153846	5,53846153866,4615	50 116,46153	15484,61538	14716,615	0,05218591231
		67	18,46153846	184,6153846	50	234,6153846	5,53846153866,4615	50 116,46153	15719,23077	14833,076	0,05974174143
		68	18 46153846	184 6153846	50	234 6153846	5 53846153866 4615	50 116 46153	15953 84615	14949 538	0.06717984605