

Lampiran 9 Alternative biaya algoritma wagner within untuk bahan baku *feedwheat*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
1	9,362,880	10,568,128	12,797,522	16,141,612	19,839,448	24,619,057	32,559,724	41,272,892	67,283,229	94,161,410	119,936,047	148,259,420	176,716,566	206,018,502	242,093,857	283,470,687	330,370,603	377,697,024	436,618,953	491,095,891	543,279,957	589,590,589	636,224,685	686,839,117	751,188,755	826,823,477	901,117,015	976,395,892	1,127,342,622		
2		18,725,760	19,840,457	22,069,851	24,843,228	28,666,914	35,284,137	42,752,567	51,839,861	77,440,315	102,045,288	129,139,130	156,412,334	184,543,874	219,233,630	259,080,022	290,722,748	336,896,886	394,418,307	447,630,454	498,630,451	543,913,599	589,535,491	639,074,665	689,468,420	763,865,415	836,962,749	911,048,765	1,059,640,917		
3			19,931,008	21,045,705	22,894,623	25,762,388	31,056,166	37,279,857	45,068,967	54,013,059	77,448,368	103,312,680	129,401,942	156,363,086	189,667,243	227,983,196	258,455,527	289,608,581	345,729,495	397,676,849	447,492,779	491,748,442	536,358,131	584,822,045	634,145,229	692,407,312	764,308,443	837,201,596	983,439,171		
4				22,160,402	23,084,861	24,996,704	28,967,037	33,945,991	40,436,915	48,103,280	56,290,931	66,127,175	76,782,654	88,486,610	103,728,200	122,093,466	137,308,607	153,440,578	174,448,185	194,684,859	214,814,013	244,035,168	483,632,653	531,021,308	579,273,922	636,298,278	692,605,790	764,306,081	908,189,078		
5				25,504,492	26,460,414	29,107,303	32,841,518	38,034,258	44,422,895	51,440,882	60,047,595	83,768,972	108,389,326	138,922,285	174,177,360	202,308,899	231,157,386	267,620,886	301,815,712	349,263,506	391,464,200	434,049,481	480,362,878	527,544,920	583,331,550	638,442,858	694,593,087	836,121,507			
6				29,202,328	30,525,773	33,015,250	36,909,804	42,020,714	47,869,036	55,246,219	63,533,814	86,983,772	116,131,132	149,855,768	176,816,913	204,513,116	239,576,109	272,506,142	304,518,515	345,691,724	387,264,802	432,502,939	478,614,411	533,163,314	587,078,419	642,035,785	752,870,108				
7						33,981,937	35,226,675	37,823,045	41,656,227	46,334,885	52,482,537	59,586,190	67,778,959	95,540,720	127,734,917	153,525,666	180,069,586	213,732,071	245,397,313	276,225,617	304,004,614	344,565,488	388,728,366	433,769,267	487,080,444	539,799,345	593,563,849	702,043,594			
8						38,329,917	39,628,102	42,183,557	45,692,551	50,610,672	56,530,383	63,552,756	73,251,950	103,915,709	128,536,062	153,927,698	186,189,677	216,590,126	246,234,363	272,985,875	300,351,737	343,439,357	387,409,686	439,483,136	491,005,834	543,577,476	649,702,644				
9							42,204,398	43,482,125	45,821,454	54,245,814	60,097,792	68,411,387	79,124,458	102,574,416	126,813,769	157,675,240	186,810,897	215,271,066	240,995,093	240,995,093	267,348,752	296,419,375	339,319,134	390,154,857	440,481,351	491,860,132	595,630,722				
10							46,272,684	47,442,349	49,901,410	53,453,236	58,134,818	65,062,814	74,245,447	82,438,215	105,525,284	134,986,249	162,857,114	190,133,214	214,829,757	240,171,213	268,166,576	297,110,452	346,708,449	395,838,740	446,024,658	497,440,671					
11								51,019,107	52,248,638	54,616,522	58,127,709	63,670,105	71,322,299	78,344,672	86,410,658	114,471,115	141,077,188	167,169,221	190,838,279	215,167,531	242,087,635	269,960,940	303,424,025	351,358,112	400,351,168	499,412,603					
12											55,055,431	56,239,373	58,580,164	62,736,961	68,858,716	74,710,694	81,624,396	91,427,946	116,769,226	141,677,191	164,318,765	187,635,813	213,480,659	240,283,393	272,508,751	304,849,219	352,649,413	449,356,270			
13												59,264,290	60,434,685	63,205,883	67,797,200	72,478,782	78,240,200	86,643,243	95,496,788	119,220,685	140,834,774	163,139,618	187,909,205	213,641,368	244,628,999	275,773,264	308,023,396	402,375,676			
14												62,816,116	64,201,715	67,262,593	70,773,779	75,382,914	82,385,450	89,974,202	98,262,678	118,849,282	140,141,923	163,836,251	188,497,843	218,247,748	248,195,809	279,253,078	342,911,261				
15														67,490,589	69,021,027	71,361,818	74,818,669	80,420,698	86,744,658	93,849,066	101,041,458	121,321,895	143,940,964	167,531,985	196,044,163	224,796,021	254,660,428	315,964,033			
16															72,099,841	73,270,237	75,574,804	79,776,325	84,835,494	90,755,833	96,920,741	104,006,166	125,549,976	148,070,426	175,344,878	202,900,532	231,572,077	290,521,105			
17																76,625,473	77,777,757	80,578,771	84,373,147	89,109,419	94,246,842	100,320,064	107,846,877	129,296,756	155,333,481	181,692,932	209,171,615	265,766,065			
18																	80,136,659	81,537,167	84,066,751	87,618,955	91,728,893	96,789,911	103,241,465	110,735,462	135,534,460	160,697,707	186,983,528	241,223,401			
19																		84,181,549	85,446,341	87,814,477	90,896,931	94,945,746	100,322,041	106,745,466	115,409,552	124,979,180	135,714,939	159,260,714			
20																				89,139,205	92,378,242	95,414,853	99,715,889	105,068,744	112,495,103	120,868,528	144,768,625	194,299,342			
21																					93,429,631	94,457,115	96,481,523	99,707,300	103,989,583	110,178,216	117,355,437	125,705,472	172,881,612		
22																						96,981,835	97,994,038	100,144,556	103,356,269	108,307,175	114,288,193	121,445,365	137,927,408		
23																							100,259,811	101,335,070	103,476,212	107,189,392	111,974,205	117,938,516	132,065,981		
24																								104,308,626	105,379,196	107,854,650	111,443,260	116,214,709	127,987,596		
25																									109,070,180	112,700,313	116,278,900	125,697,210			
26																										112,719,149	113,915,352	116,301,077	123,364,809		
27																										116,552,272	117,745,134	122,454,289			
28																											120,806,140	123,160,718			
29																												125,577,589			
Fe	9,362,880	10,568,128	12,797,522	16,141,612	19,839,448	24,619,057	28,967,037	32,841,518	36,909,804	41,656,227	45,692,551	49,901,410	53,453,236	58,127,709	62,736,961	67,262,593	70,773,779	74,818,669	79,776,325	84,066,751	87,618,955	90,896,931	94,945,746	99,707,300	103,356,269	107,189,392	111,443,260	116,214,709	122,454,289		
Lot sizing	382193						351784					325075			358255					402729				394766						341562	

	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
1	1,217,087,580	1,300,491,952	1,380,917,727	1,478,598,295	1,569,328,247	1,666,209,275	1,793,991,916	1,898,774,822	2,009,836,241	2,116,259,566	2,216,032,985	2,323,175,443	2,419,721,983	2,514,543,702	2,645,625,364	2,763,430,435	2,969,930,185	3,113,289,730	3,210,681,969
2	1,148,007,469	1,230,150,198	1,309,377,516	1,391,169,666	1,480,781,480	1,576,483,099	1,702,728,850	1,806,266,472	1,916,023,490	2,021,211,400	2,119,839,889	2,213,040,379	2,308,632,710	2,402,526,438	2,532,337,679	2,649,011,961	2,853,548,406	2,995,557,790	3,092,041,348
3	1,070,427,317	1,151,308,404	1,229,337,265	1,309,910,597	1,384,946,432	1,479,468,642	1,604,177,504	1,706,469,840	1,814,922,459	1,918,874,953	2,016,358,512	2,108,489,499	2,191,642,829	2,284,608,566	2,413,149,385	2,528,692,880	2,731,266,019	2,871,925,242	2,967,500,117
4	993,798,818	1,073,418,262	1,150,248,666	1,229,603,181	1,303,520,876	1,382,668,397	1,505,840,371	1,606,887,422	1,714,035,641	1,816,752,718	1,913,091,348	1,994,789,951	2,076,989,072	2,157,857,595	2,285,127,992	2,399,540,698	2,600,150,532	2,739,459,595	2,834,125,787
5	920,352,840	998,710,642	1,074,342,590	1,152,478,287	1,225,277,843	1,303,245,955	1,406,383,158	1,506,184,923	1,612,028,743	1,713,510,404	1,808,704,104	1,889,333,204	1,970,578,115	2,050,518,648	2,161,227,919	2,274,509,837	2,473,156,365	2,611,115,268	2,704,872,778
6	835,723,035	912,819,195	987,252,685	1,064,169,565	1,135,850,981	1,212,639,684	1,314,239,998	1,397,808,319	1,502,347,739	1,602,593,984	1,696,642,754	1,785,565,230	1,865,855,932	1,944,868,474	2,054,307,323	2,152,848,374	2,349,531,597	2,486,140,339	2,578,989,166
7	766,927,722	842,762,239	915,997,273	991,695,335	1,062,258,612	1,137,867,906	1,237,931,331	1,320,254,367	1,407,789,729	1,506,800,558	1,599,704,398	1,687,557,371	1,766,893,864	1,844,978,415	1,953,146,843	2,050,557,105	2,221,646,822	2,356,905,404	2,448,845,549
8	713,208,366	772,596,207	844,632,784	919,112,028	988,557,166	1,062,987,051	1,161,513,587	1,242,591,337	1,328,822,300	1,411,728,335	1,503,487,245	1,590,270,715	1,668,652,998	1,745,809,560	1,852,707,565	1,948,987,040	2,118,113,451	2,235,771,440	2,326,802,903
9	657,758,037	715,884,236	772,297,819	845,558,245	913,885,244	987,135,720	1,084,125,367	1,163,957,832	1,248,884,395	1,330,555,014	1,407,388,705	1,493,102,671	1,570,530,745	1,646,759,316	1,752,368,899	1,847,535,586	2,014,698,692	2,131,006,520	2,210,192,467
10	608,189,580	665,054,136	720,269,262	777,641,270	844,850,130	916,921,197	1,012,373,955	1,090,961,135	1,174,583,299	1,255,018,501	1,330,707,263	1,402,479,261	1,478,953,126	1,554,253,507	1,658,610,868	1,752,628,767	1,917,828,567	2,032,786,325	2,111,063,500
11	558,783,106	614,386,021	668,402,689	724,555,880	777,188,761	848,080,419	941,996,288	1,019,338,182	1,101,655,946	1,180,855,732	1,255,399,564	1,326,102,060	1,390,136,923	1,464,509,513	1,567,596,253	1,660,483,363	1,823,719,858	1,937,327,365	2,014,695,948
12	507,348,367	561,689,639	614,507,851	669,442,224	720,956,966	776,473,934	868,852,914	944,949,524	1,025,962,888	1,103,927,258	1,177,326,160	1,246,959,152	1,310,039,806	1,372,315,182	1,474,131,499	1,565,887,822	1,727,161,011	1,839,418,358	1,915,878,258
13	458,989,367	512,068,996	563,688,751	617,404,306	667,800,909	722,138,468	794,482,678	869,334,002	949,042,967	1,025,771,921	1,098,025,893	1,166,589,381	1,228,715,826	1,290,063,211	1,375,318,403	1,465,943,938	1,625,253,822	1,736,161,008	1,811,712,225
14	398,146,546	449,964,533	500,385,831	552,882,569	602,161,032	655,319,182	726,126,503	784,744,382	863,148,947	938,642,485	1,009,751,527	1,077,245,512	1,138,417,748	1,198,837,143	1,282,821,912	1,368,053,157	1,516,053,172	1,625,610,183	1,700,252,718
15	353,230,519	403,786,863	453,009,705	504,287,624	552,447,949	604,426,690	673,697,122	731,069,716	792,470,223	866,728,345	936,692,457	1,003,116,939	1,063,334,965	1,122,826,369	1,205,540,717	1,280,294,596	1,412,047,669	1,520,254,534	1,593,988,387
16	326,409,184	360,518,853	408,543,237	458,602,339	505,644,524	556,443,856	624,177,399	680,304,708	740,400,816	798,554,144	867,373,327	932,728,305	991,992,122	1,050,555,536	1,131,999,461	1,205,622,552	1,335,412,319	1,426,018,592	1,498,843,762
17	300,275,738	333,123,764	365,525,155	414,365,439	460,289,485	509,909,408	576,106,061	630,988,085	689,779,793	746,697,705	800,591,669	864,877,143	923,186,751	980,822,174	1,060,995,678	1,133,487,981	1,261,314,443	1,350,570,555	1,411,550,209
18	274,354,668	305,941,052	337,143,985	370,095,852	414,901,758	463,342,272	528,002,037	581,638,776	639,126,084	694,808,579	747,557,613	797,901,120	855,256,519	911,963,952	990,867,034	1,062,228,549	1,188,091,705	1,275,997,656	1,336,068,628
19	174,423,181	189,562,889	205,142,828	222,206,277	238,978,364	257,848,910	283,976,022	306,391,155	331,174,749	355,883,073	379,926,598	403,455,674	425,402,487	447,674,257	479,434,806	508,835,293	561,844,531	599,649,038	626,000,827
20	224,673,797	253,736,896	282,542,916	313,057,147	342,168,935	374,055,351	435,641,338	486,787,506	541,666,015	594,877,678	645,336,853	693,541,353	737,503,541	781,185,769	857,548,007	926,647,946	1,048,584,491	1,133,790,121	1,192,043,729
21	201,877,661	229,679,118	257,286,681	286,582,094	314,575,743	345,282,750	386,833,966	436,734,849	490,308,958	542,885,205	591,599,450	638,734,447	681,742,425	724,496,663	784,297,775	852,266,926	972,240,165	1,056,095,635	1,113,440,560
22	148,954,657	160,309,438	172,294,006	185,701,002	199,118,672	214,450,990	235,967,435	254,646,713	275,517,108	296,519,183	317,127,919	337,448,484	356,532,669	376,020,469	403,969,751	429,977,874	477,097,208	510,851,221	534,476,963
23	141,714,824	166,992,996	192,203,645	219,061,423	244,818,794	273,166,983	311,644,421	344,066,753	379,332,226	428,837,640	475,862,025	520,858,015	561,957,576	602,855,832	660,116,101	712,213,596	804,630,024	885,785,173	941,312,733
24	136,258,033	145,089,529	169,101,721	194,740,681	219,379,913	246,548,693	283,489,242	314,666,109	348,627,362	382,027,983	427,907,438	471,833,925	511,979,276	551,949,542	607,939,388	658,906,096	749,359,218	812,913,774	850,927,633
25	132,589,240	140,159,094	148,548,292	172,968,434	196,489,527	222,478,897	257,882,558	287,814,140	320,470,993	352,636,197	383,590,433	426,447,417	465,638,558	504,680,834	559,400,259	609,236,178	697,725,995	759,930,391	802,703,752
26	128,878,434	135,186,645	142,377,386	150,909,111	159,854,224	170,468,906	185,837,795	199,535,932	215,188,728	231,249,139	247,278,156	263,320,707	278,588,056	294,363,893	317,231,488	338,716,459	377,982,570	406,335,942	426,326,954
27	126,589,507	131,636,076	137,628,361	144,941,267	152,768,241	176,398,794	188,728,676	206,169,688	226,217,742	259,912,114	324,576,490	352,422,003	378,219,934	415,406,229	467,584,809	515,159,153	599,722,359	659,226,483	700,182,430
28	125,917,530	129,702,457	134,496,284	140,590,373	147,299,208	155,555,071	186,348,065	212,543,791	241,287,446	297,265,848	324,041,857	348,885,579	373,974,659	424,882,818	471,326,374	553,926,274	612,080,188	652,127,503	
29	126,955,995	129,479,279	133,074,650	137,949,921	143,540,617	150,617,071	161,375,294	171,337,575	183,077,172	195,431,334	208,025,562	220,859,603	233,264,324	246,256,190	265,312,519	283,405,126	316,781,321	341,084,210	358,349,175
30	131,817,169	133,078,811	135,475,725	139,132,178	143,604,735	149,501,780	158,723,114	167,440,110	193,574,965	219,563,088	244,792,676	269,429,678	292,364,981	315,598,080	348,674,691	397,246,591	457,919,880	513,373,473	551,603,423
31		135,840,010	146,988,556	138,916,502	142,270,920	154,673,550	162,144,712	171,275,510	196,028,171	220,112,874	243,680,373	265,661,467	287,966,576	319,772,765	349,213,876	402,293,660	456,397,092	493,718,362	
32			138,842,159	140,060,977	142,297,255	145,835,483	151,983,039	158,209,464	166,035,862	174,683,776	197,623,504	220,121,498	241,148,383	262,525,502	293,061,269	321,371,593	372,488,071	408,990,911	445,403,496
33				143,555,669	145,914,487	150,525,154	156,506,295	162,028,293	169,440,790	177,455,299	198,883,790	218,956,466	239,405,594	268,670,939	295,850,475	345,003,647	380,156,327	404,723,396	
34					147,312,801	148,492,210	151,565,988	155,301,843	160,519,442	166,696,523	173,566,102	181,052,626	200,171,092	219,692,230	247,687,153	273,735,901	320,925,768	354,728,286	378,386,673
35						151,633,800	155,661,259	159,574,458	164,516,123	170,240,772	176,657,792	183,337,257	201,930,405	228,654,906	253,572,866	298,799,427	331,251,785	354,001,490	
36							155,198,363	156,443,648	159,052,447	162,758,696	167,338,415	172,685,932	178,411,188	184,907,121	210,361,200	234,148,372	277,411,627	308,513,825	330,354,847
37								159,888,034	161,192,434	163,663,266	167,098,055	171,376,609	176,147,116	181,715,058	190,608,012	213,264,395	254,564,345	284,316,383	305,248,723
38									164,664,723	165,900,140	168,189,999	171,398,510	175,215,347	179,855,299	187,477,830	195,393,346	234,729,991	263,131,867	283,155,525
39										169,560,257	171,699,264	174,561,892	178,273,853	184,625,963	191,410,691	205,153,830	232,205,546	251,320,521	
40											172,121,576	173,191,079	175,099,498						

Lampiran 10 Alternatif biaya Lot sizing Algoritma wagner within bahan baku Brandpollar

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	10,038,480	10,237,580	10,635,780	11,233,079	12,005,327	12,910,632	14,042,169	15,184,366	19,098,847	22,630,755	26,896,285	31,351,821	35,997,363	44,551,104	52,566,557	57,782,116	65,553,153	74,294,997	80,879,152	88,533,027	97,808,756	106,914,727
2		20,076,960	20,276,060	20,674,260	21,253,446	21,977,689	22,920,637	23,899,663	25,239,618	28,606,864	32,682,388	36,947,919	41,403,455	49,621,089	57,333,494	62,359,047	67,574,607	76,107,809	82,538,483	90,018,006	99,087,145	107,994,723
3			20,276,060	20,475,160	20,861,284	21,404,466	22,158,825	22,974,679	24,123,212	25,275,845	29,161,363	33,236,888	37,502,418	45,383,945	52,793,302	57,628,850	62,654,404	68,381,493	74,658,687	81,963,857	90,826,404	99,535,591
4				20,674,260	20,867,322	21,229,443	21,795,212	22,447,896	23,405,006	24,392,977	25,723,018	29,608,537	33,684,061	41,229,482	48,335,791	52,981,333	57,816,881	63,335,329	67,548,290	74,679,108	83,335,064	91,845,859
5					21,271,559	21,452,620	21,829,799	22,319,312	23,085,001	23,908,310	25,048,345	26,378,385	30,263,904	37,473,217	44,276,479	48,732,015	53,377,557	58,687,364	62,746,845	67,532,719	75,982,083	84,294,487
6						22,043,807	22,232,397	22,558,739	23,133,005	23,791,652	24,741,682	25,881,717	27,211,757	34,084,964	40,585,178	44,850,708	49,306,244	54,407,410	58,313,410	62,924,932	68,595,753	76,709,765
7							22,949,112	23,112,283	23,495,127	23,989,112	24,749,136	25,699,165	26,839,200	29,191,948	35,389,114	39,464,638	43,730,168	48,622,693	52,375,212	56,812,382	62,276,612	67,722,360
8								24,080,649	24,272,071	24,601,395	25,171,412	25,931,436	26,881,465	28,898,106	31,019,440	34,904,959	38,980,483	43,664,367	47,263,405	51,526,223	56,783,862	62,031,218
9									25,222,846	25,387,508	25,767,519	26,337,537	27,097,560	28,778,094	30,596,381	31,926,422	33,446,468	35,324,239	36,859,045	38,776,918	41,256,014	43,835,106
10										29,137,327	29,327,333	29,707,344	30,277,362	31,621,789	33,137,028	34,277,063	35,607,104	39,873,705	43,165,782	47,079,896	51,924,352	56,774,925
11											32,669,235	32,859,241	33,239,252	34,247,573	35,459,764	36,409,793	37,549,828	39,010,316	42,148,913	45,888,674	50,526,539	55,178,720
12												34,780,162	34,970,167	35,642,381	36,551,524	37,311,548	38,261,577	39,513,424	40,587,788	44,153,197	48,584,471	53,038,260
13													35,737,645	36,073,752	37,249,865	38,009,888	39,053,094	39,973,977	41,194,442	45,419,125	49,674,522	53,674,522
14														36,877,680	37,180,728	37,560,739	38,130,757	38,965,321	39,732,724	40,778,837	42,224,976	46,281,982
15															38,816,574	39,006,580	39,386,592	40,012,515	40,626,438	41,498,198	42,737,746	44,126,488
16																40,634,861	40,824,867	41,242,149	41,702,591	42,399,999	43,432,956	44,623,306
17																	41,964,902	42,173,543	42,480,504	43,003,560	43,829,925	44,821,884
18																		43,484,948	43,638,429	43,987,133	44,606,907	45,400,474
19																			45,362,719	45,950,253	46,545,429	47,500,899
20																				46,897,525	47,104,116	47,500,899
21																					48,815,398	49,013,790
22																						51,294,494
Fe	10,038,480	10,237,580	10,635,780	11,233,079	12,005,327	12,910,632	14,042,169	15,184,366	19,098,847	22,630,755	24,741,682	25,699,165	26,839,200	28,778,094	30,596,381	31,926,422	33,446,468	35,324,239	36,859,045	38,776,918	41,256,014	43,835,106
Lotsize	172576					231584						259544					242864					

	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	
1	115,518,159	125,054,832	140,115,981	158,552,745	169,005,056	179,490,458	194,951,511	207,652,064	218,741,774	231,728,371	247,270,445	263,317,291	278,989,521	294,848,775	311,413,089	326,035,354	340,492,310	356,940,802	373,277,815	389,774,608	406,326,275	424,339,030	441,715,904	486,645,803	530,500,280
2	116,414,709	125,752,283	137,511,561	155,652,620	165,939,934	176,262,389	191,486,847	203,995,978	214,921,026	227,717,617	240,704,214	256,557,252	272,042,458	287,714,688	304,085,939	318,539,742	332,832,036	349,095,293	363,283,359	379,620,372	396,013,265	413,854,874	431,068,197	475,579,159	519,028,503
3	107,772,131	116,910,605	128,424,381	142,588,358	152,710,676	162,870,183	177,858,047	190,175,756	200,936,142	213,542,728	226,339,319	239,585,749	254,883,931	270,369,137	286,547,326	300,832,665	314,960,297	331,038,319	345,066,606	359,254,671	375,488,792	393,159,254	410,209,025	454,301,051	497,345,263
4	99,898,953	108,838,326	120,106,601	133,974,873	141,878,065	151,874,625	166,625,895	178,752,182	189,347,906	201,764,483	214,371,071	227,423,694	240,206,500	255,504,682	271,489,808	285,606,684	299,569,654	315,462,441	329,330,948	343,359,235	357,457,942	374,957,258	391,843,478	435,516,566	478,155,646
5	92,164,134	100,904,408	111,927,181	125,499,747	133,237,942	141,042,947	155,557,623	167,492,488	177,923,550	190,150,123	202,566,703	215,425,519	228,021,300	240,804,106	256,596,171	270,544,583	284,342,891	300,050,443	313,759,171	327,627,678	341,567,613	356,765,093	390,430,258	433,684,409	475,918,357
6	84,395,966	92,937,140	103,714,411	116,991,272	124,564,470	132,206,527	143,539,137	155,282,579	165,548,980	177,585,548	189,812,121	202,477,130	214,885,887	227,481,668	240,677,151	254,457,100	268,090,747	283,613,063	297,162,012	310,870,739	324,651,901	339,678,235	354,201,227	397,036,441	438,865,257
7	75,225,115	83,567,189	94,098,959	107,080,114	114,488,314	121,967,424	133,063,440	142,232,357	152,334,095	164,180,657	176,217,225	188,688,426	200,910,159	213,318,916	227,835,542	251,304,527	266,641,609	280,030,778	293,579,726	307,202,115	322,057,302	336,416,743	373,617,474	415,041,158	
8	67,066,719	75,209,693	85,495,960	98,181,410	105,424,613	112,740,776	123,600,198	132,577,692	140,464,817	152,121,373	163,967,935	176,245,329	188,280,037	200,501,771	213,311,129	224,656,871	235,911,242	251,063,089	264,292,478	277,681,648	291,145,263	305,829,303	320,025,193	356,806,988	392,781,859
9	46,403,353	49,389,851	53,317,881	58,344,873	63,368,951	68,493,558	76,170,914	82,573,882	88,246,393	94,982,000	101,907,612	109,165,598	118,684,930	128,391,287	138,604,064	147,684,062	156,723,820	167,078,271	176,169,545	185,420,599	196,748,802	209,131,007	221,127,221	252,274,533	282,800,592
10	61,443,533	66,709,620	73,448,515	85,542,554	92,455,763	99,446,031	109,832,264	118,426,914	125,984,716	134,895,788	143,996,866	155,886,645	167,547,306	179,394,990	191,818,225	202,827,040	213,752,088	226,227,383	237,148,047	250,217,657	263,363,727	277,705,473	291,574,261	327,518,181	362,682,788
11	59,663,882	64,730,869	71,224,263	79,341,220	86,089,432	92,916,752	103,066,391	111,469,620	118,862,759	127,583,826	136,494,898	145,778,069	157,251,706	168,912,366	181,142,539	191,982,891	202,743,277	215,033,337	225,794,221	236,714,884	249,702,181	263,872,780	277,578,017	313,103,000	347,862,475
12	57,339,976	62,207,863	68,455,755	76,277,007	80,806,093	87,470,466	97,383,511	105,595,317	112,823,795	121,354,856	130,075,922	139,165,286	148,123,546	159,597,183	171,634,592	182,306,182	192,901,906	205,006,731	219,220,603	235,200,055	264,761,741	299,867,787	334,222,130		
13	53,792,792	58,461,579	64,463,969	71,989,516	76,353,605	80,826,423	90,502,873	98,523,257	105,587,074	113,928,128	122,459,189	131,354,745	140,125,981	149,084,242	160,928,290	171,431,715	181,862,777	193,782,368	204,223,693	214,824,797	225,517,908	237,215,525	250,593,660	285,280,768	319,229,980
14	50,216,806	54,686,493	60,443,381	67,673,222	71,872,314	76,182,185	82,676,569	90,505,531	97,404,685	105,555,734	113,896,789	122,598,538	131,182,750	139,953,986	149,201,453	159,536,414	169,802,815	181,537,170	191,818,715	202,260,041	212,794,378	224,320,849	235,499,308	264,551,933	298,096,012
15	47,877,866	52,148,453	57,659,839	64,593,975	68,628,069	72,774,993	79,032,783	84,287,219	91,021,711	98,982,755	107,133,804	115,641,745	124,038,933	132,623,145	141,677,549	149,746,767	159,848,506	171,397,626	181,519,392	191,800,938	202,176,503	213,531,826	224,546,734	253,180,423	286,319,370
16	45,907,429	49,978,916	55,244,801	61,883,231	65,752,329	69,736,305	75,757,501	80,820,515	85,340,393	93,111,431	101,072,474	109,386,608	117,596,771	125,993,959	134,855,302	142,756,056	150,643,181	162,007,066	171,969,053	182,090,923	192,307,611	203,491,788	214,343,145	242,557,896	270,248,031
17	45,922,561	47,316,260	52,336,643	58,679,368	62,383,468	66,204,497	71,989,099	76,860,691	81,215,908	86,431,467	94,202,504	102,322,831	110,345,970	118,556,134	127,224,414	134,956,705	142,679,169	151,551,738	161,353,946	171,315,933	181,373,952	192,386,981	203,074,787	230,870,601	258,155,604
18	46,317,705	47,512,304	49,230,817	55,277,837	58,816,940	62,475,021	68,023,029	72,703,198	76,893,753	81,919,307	87,134,866	95,061,386	102,897,501	110,920,640	119,395,858	126,959,686	134,517,488	143,204,822	150,858,082	160,660,290	170,559,536	181,401,419	191,925,673	219,302,550	246,182,421
19	47,279,213	48,274,713	49,747,724	51,817,662	55,191,768	58,686,902	63,998,315	68,487,063	72,512,956	77,348,504	82,374,058	87,693,969	95,343,060	103,179,175	111,461,332	118,856,696	126,249,836	134,751,935	142,245,416	149,898,677	159,309,149	170,309,885	180,670,589	207,628,528	234,103,267
20	48,051,238	48,847,637	50,075,147	51,849,379	53,004,360	56,336,546	61,411,366	65,708,691	69,569,923	74,215,465	79,051,013	84,177,117	89,310,832	96,959,922	105,049,017	112,275,918	119,504,396	127,821,260	135,154,962	142,648,443	150,253,502	160,753,091	170,950,244	197,489,246	223,558,853
21	49,380,682	49,977,982	50,959,989	52,438,517	53,428,500	54,569,131	59,407,357	63,513,260	67,209,829	71,665,366	76,310,908	81,243,204	86,189,895	91,323,610	99,219,642	106,278,080	113,341,896	121,473,525	128,647,447	135,981,149	143,427,435	151,625,190	161,658,791	187,778,856	213,443,331
22	51,477,940	51,876,140	52,612,645	53,795,467	54,620,453	55,598,137	57,254,296	61,168,777	64,700,685	68,966,215	73,421,752	78,160,241	82,919,907	87,866,598	93,166,048	100,056,023	106,955,177	114,901,570	121,915,714	129,089,636	136,377,150	144,403,757	152,237,682	194,513,911	219,733,511
23	53,873,586	54,072,686	54,563,690	55,450,806	56,110,795	56,925,532	58,345,097	59,685,051	63,052,298	67,127,822	71,393,353	75,938,034	80,510,677	85,270,343	90,376,731	95,000,962	101,735,455	109,496,613	116,350,977	123,365,120	130,493,861	138,349,321	146,019,695	166,086,341	190,940,551
24		55,945,909	56,191,411	56,782,822	57,277,814	57,929,603	59,112,574	60,261,107	61,413,739	65,299,258	69,374,782	73,725,657	78,111,275	82,683,917	87,597,243	92,053,011	96,572,890	104,148,813	110,843,397	117,697,761	124,667,728	132,352,042	139,858,865	159,506,574	178,911,972
25			57,354,470	57,650,446	57,980,440	58,469,282	59,415,659	60,372,770	61,360,740	62,690,781	66,576,300	70,733,367	74,931,961	79,317,579	84,037,843	88,325,147	92,680,364	97,764,972	104,299,777	110,994,362	117,805,556	125,318,723	132,661,995	151,890,766	170,891,032
26				59,269,297	59,434,294	59,760,189	60,469,971	61,235,660	62,058,962	63,199,004	64,529,045	68,492,304	72,503,874	76,702,468	81,229,670	85,348,511	89,539,066	94,438,439	99,824,296	105,359,102	112,011,523	119,353,543	126,533,264	145,343,098	163,938,232
27					61,856,142	62,019,089	62,492,278	63,066,544	63,725,191	64,675,220	65,815,255	67,171,907	70,996,453	75,008,422	79,342,163	83,292,540	87,318,433	92,032,571	96,258,650	100,644,507	107,138,156	114,309,029	121,325,198	139,730,995	157,906,077
28						63,042,840	63,279,434	63,662,078	64,156,264	64,916,287	65,866,316	67,029,161	68,338,330	72,162,875	76,303,954	80,085,868	83,947,099	88,476,002	92,542,301	96,768,379	101,126,615	108,126,341	114,978,959	132,950,919	150,735,789
29							64,607,611	64,799,033	65,128,357	65,698,374	66,458,398	67,427,435	68,549,580	69,858,749	73,806,766	77,420,216	81,116,786	85,400,453	89,366,973	93,433,272	97,632,735	102,330,626	109,019,693	127,572,716	143,952,454
30								67,292,776	67,457,438	67,837,450	68,407,467	69,182,697	70,117,818	71,239,963	72,591,397	76,036,384	79,568,292	83,726,724	87,473,465	91,379,985	95,420,674	99,947,418	104,436,810	121,570,895	138,545,501
31									69,723,531	69,913,537	70,293,549	70,874,971	71,623,068	72,558,189	73,716,561	74,895,805	78,263,051	82,236,248	85,823,209	89,569,590	93,951,866	97,807,463	102,133,304	113,632,907	130,202,380
32										71,589,226	71,989,220	72,537,914	73,286,010	74,251,320	75,414,733	78,262,010	81,243,733	84,202,695	87,629,877	91,216,838	95,939,981	95,124,432	99,286,		

Lampiran 11 Alternatif biaya lot sizing Algoritma wagner within bahan baku Jagung

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	1,465,880	1,743,241	2,101,903	2,812,616	3,626,414	4,643,662	5,334,535	6,140,554	10,312,733	14,460,339	19,157,791	23,986,586	33,551,680	33,312,705	38,033,566	43,297,783	52,737,592	62,476,752	70,414,413	77,759,961	88,331,112	99,159,486	108,135,177	115,625,098	124,977,000
2		2,931,760	3,111,091	3,584,900	4,195,248	5,009,047	5,584,775	6,275,648	7,955,760	11,877,744	16,332,845	20,924,736	25,166,781	35,375,513	34,343,862	39,392,181	46,012,765	55,479,621	63,201,384	70,352,430	80,650,888	91,206,959	99,962,473	107,273,062	114,762,983
3			3,209,121	3,446,025	3,852,924	4,463,273	4,923,855	5,499,582	6,939,679	8,519,040	12,731,791	17,086,778	21,120,705	25,560,976	35,832,455	34,710,471	41,059,529	47,699,082	55,204,947	62,161,490	72,187,256	82,471,023	91,006,360	98,137,618	105,448,208
4				3,567,783	3,771,233	4,178,132	4,523,569	4,984,151	6,184,231	7,537,969	9,234,420	13,352,503	17,178,312	21,400,740	25,515,920	36,518,645	36,209,976	42,577,226	47,841,443	54,603,483	64,356,557	74,368,021	82,683,181	89,635,108	96,766,366
5					4,278,496	4,481,945	4,712,236	5,057,673	6,017,737	7,145,852	8,599,953	10,258,281	13,875,973	17,880,559	21,793,845	26,194,471	38,929,729	38,095,423	43,143,743	47,886,281	57,366,661	67,105,822	75,200,805	81,973,401	88,925,327
6						5,092,294	5,207,440	5,437,731	6,157,779	7,060,271	8,272,022	9,693,446	11,150,270	14,937,013	18,648,405	22,833,133	28,367,614	41,664,116	39,022,678	43,570,714	50,219,752	59,686,609	67,561,416	74,154,680	80,927,275
7							5,644,012	5,759,158	6,239,190	6,916,059	7,885,459	9,069,980	12,271,436	15,840,336	19,349,835	23,318,665	28,581,621	34,131,960	46,654,138	43,102,016	52,037,012	61,231,565	68,886,195	75,300,128	81,893,392
8								5,989,449	6,229,465	6,680,711	7,407,761	8,355,378	9,395,966	10,703,023	12,116,278	15,869,211	20,860,641	26,138,676	30,539,302	42,992,992	40,801,986	47,169,235	52,537,788	58,772,390	65,186,322
9									6,450,031	6,675,654	7,160,354	7,871,066	8,703,537	9,792,751	11,004,113	12,515,398	17,235,302	22,241,034	26,425,762	30,390,290	45,061,295	42,316,197	47,464,573	51,837,193	58,071,794
10									7,483,617	7,725,967	8,199,775	8,824,129	9,695,500	10,704,968	12,000,355	13,901,034	18,634,462	22,603,292	26,373,318	31,931,586	47,138,880	42,682,428	46,875,716	51,248,336	
11										8,141,534	8,378,438	8,794,673	9,448,202	10,255,776	11,335,265	12,964,418	14,870,543	18,623,476	22,198,999	27,484,574	33,034,913	47,567,941	41,756,893	45,950,181	
12												8,626,234	8,834,352	9,270,037	9,875,718	10,739,309	12,096,937	13,730,758	15,242,043	18,623,063	23,635,946	28,913,982	33,401,827	47,420,121	41,250,411
13														9,336,946	9,554,789	9,958,576	10,606,270	11,692,372	13,053,890	14,349,276	20,450,985	25,456,716	29,724,385	33,379,680	47,756,637
14													10,169,417	10,371,311	10,803,106	11,617,683	12,706,897	13,786,386	14,953,401	16,862,249	21,595,678	25,643,169	29,119,133	32,774,427	
15															10,735,917	10,951,815	11,494,866	12,311,777	13,175,368	14,147,881	15,784,036	17,690,161	21,517,476	24,814,108	28,290,071
16																	11,341,598	11,613,124	12,157,731	12,805,424	13,583,434	14,946,897	16,580,718	18,121,957	21,239,257
17																		12,072,150	12,344,453	12,776,249	13,359,757	14,450,527	15,812,044	17,133,106	18,388,425
18																			12,960,746	13,176,644	13,565,649	15,472,941	16,573,825	17,649,813	18,905,133
19																				13,623,611	13,818,113	14,363,498	15,180,409	16,061,117	16,957,773
20																					14,242,129	14,514,821	15,059,429	15,719,959	16,437,284
21																						14,825,637	15,097,940	15,538,294	16,076,288
22																							15,829,378	16,049,555	16,408,218
23																								16,049,555	16,408,218
24																								16,525,309	17,064,640
25																									17,004,174
Fe	1,465,880	1,743,241	2,101,903	2,812,616	3,626,414	4,178,132	4,523,569	4,984,151	6,017,737	6,675,654	7,160,354	7,871,066	8,703,537	9,270,037	9,875,718	10,606,270	11,494,866	12,157,731	12,776,249	13,359,757	14,363,498	15,059,429	15,538,294	16,076,288	16,793,613
Lot size	65957			112350					121450				108450				122650				144450				

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1	136,410,345	146,942,411	158,291,120	169,649,034	181,965,089	197,211,072	213,087,390	229,559,721	244,238,605	259,821,261	273,336,331	286,208,213	303,952,044	320,993,716	339,690,028	380,278,419	401,994,915	422,159,843	438,546,670	455,115,745	481,717,635	503,584,896	550,230,534	565,147,120	578,952,282
2	125,981,208	136,318,772	147,461,697	158,617,328	170,717,875	185,701,668	201,309,573	215,322,149	229,792,916	245,157,730	258,486,466	271,183,296	288,689,056	305,505,104	323,957,121	343,090,757	364,560,235	384,498,373	400,702,951	417,089,777	443,402,247	465,034,160	511,183,117	527,417,145	542,428,875
3	114,432,863	124,575,924	135,513,066	146,466,414	158,351,452	173,073,056	188,412,547	202,188,220	214,498,119	229,645,089	242,787,492	255,309,270	272,576,958	289,167,384	307,375,106	324,196,411	343,101,121	362,812,469	378,834,798	395,039,376	421,062,426	442,458,991	488,111,266	502,713,536	516,230,834
4	105,535,901	113,659,460	124,390,818	135,141,884	146,811,413	161,270,827	176,341,905	189,880,673	201,982,454	214,867,582	227,823,652	240,170,377	257,199,994	273,564,797	291,528,224	308,126,824	326,784,516	344,141,124	359,981,204	376,003,533	401,737,163	422,898,380	468,053,973	482,499,085	495,872,451
5	97,479,743	105,408,799	114,003,523	124,552,307	136,006,327	150,203,552	165,006,216	178,308,080	190,201,744	202,869,029	213,890,415	226,062,088	242,853,634	258,992,814	276,711,945	293,087,840	311,498,514	328,628,332	342,576,138	358,416,218	383,860,428	403,716,922	448,375,834	462,663,788	475,893,222
6	89,266,571	97,001,124	105,390,065	113,838,566	125,077,077	139,012,112	153,546,363	166,611,323	178,296,869	190,746,312	201,581,364	211,935,485	228,488,960	244,402,517	261,877,353	278,030,542	296,194,198	313,097,226	326,862,783	340,810,589	365,965,380	384,772,727	428,934,957	443,065,753	456,151,256
7	90,017,568	97,557,619	105,740,776	115,884,994	126,907,996	140,580,842	154,846,680	167,674,736	179,152,164	191,383,763	202,032,483	213,854,051	230,169,455	245,857,389	263,087,930	279,018,414	296,935,051	313,611,289	327,194,598	342,670,180	367,535,551	385,555,832	429,221,380	443,195,018	456,136,589
8	73,095,379	80,440,927	88,418,300	96,462,236	105,247,629	116,198,186	130,195,610	142,786,762	154,056,072	166,069,829	176,532,215	186,536,231	200,379,764	213,725,075	230,711,321	246,419,099	264,088,718	280,538,167	293,939,226	307,522,534	329,382,885	347,394,460	390,563,327	404,379,806	417,177,445
9	65,765,731	72,916,776	80,688,366	88,530,019	97,099,904	107,788,271	118,998,781	131,353,029	142,414,222	154,210,136	164,486,188	174,315,152	187,920,614	201,040,302	215,490,053	230,975,125	248,397,726	264,620,385	277,839,195	291,240,255	312,811,186	330,587,413	368,599,278	382,258,599	394,912,306
10	58,727,153	65,683,696	73,249,502	80,888,872	89,243,248	99,669,426	110,611,523	120,506,017	131,359,092	142,937,163	153,026,882	162,680,793	176,048,184	188,942,249	203,147,705	216,320,447	233,496,032	249,491,899	262,528,460	275,747,271	297,028,782	314,569,661	352,084,844	364,112,408	376,622,183
11	51,195,428	57,957,469	65,317,492	72,754,579	80,893,446	91,057,434	101,731,118	111,388,708	120,080,915	127,648,793	137,552,179	147,031,038	160,160,358	172,828,800	186,789,960	199,739,997	214,350,812	230,119,890	242,974,203	256,010,765	277,002,857	294,308,387	331,326,889	343,197,294	354,212,637
12	46,280,538	51,023,076	58,177,315	65,412,119	73,335,478	83,237,277	93,642,547	103,063,232	111,547,322	120,645,707	130,362,760	139,666,566	152,557,815	165,000,634	178,717,499	191,444,831	205,808,627	219,222,966	231,895,030	244,749,343	265,452,015	282,522,197	319,044,017	330,757,265	341,628,676
13	42,029,313	46,577,349	51,594,954	58,627,476	66,335,326	75,974,935	86,111,792	95,295,573	103,571,545	112,452,088	120,234,456	129,363,211	142,016,388	154,233,585	167,706,155	180,210,781	194,327,559	207,512,108	219,294,997	230,966,962	251,380,214	268,215,048	304,240,187	315,796,276	326,523,756
14	48,346,885	41,727,848	46,539,669	51,471,909	58,964,250	68,341,670	78,210,113	87,156,990	95,224,844	103,887,544	111,483,579	118,794,782	131,209,888	143,201,462	156,429,736	168,711,657	182,581,417	195,542,176	206,139,717	216,919,507	237,043,340	253,642,826	289,171,282	300,570,214	311,153,761
15	32,674,839	48,195,445	41,439,907	46,169,864	51,424,596	60,539,827	70,139,856	78,849,830	86,709,566	95,154,423	102,564,125	109,700,275	119,643,510	131,409,461	144,393,440	156,452,656	170,075,397	182,809,366	193,224,658	203,822,200	220,941,012	237,305,150	272,336,925	283,578,699	294,018,315
16	28,705,537	32,670,065	48,843,462	41,597,993	46,637,217	53,030,158	62,361,774	70,834,843	78,486,462	86,713,476	93,936,844	100,897,942	110,603,106	120,026,434	132,766,118	144,602,628	157,938,352	170,485,331	180,718,574	191,133,866	207,963,259	221,883,799	256,418,893	267,503,508	277,799,192
17	25,460,254	29,230,279	33,424,750	49,927,849	42,573,856	48,704,607	55,249,310	63,485,475	70,928,976	78,938,147	85,975,182	92,761,228	102,228,321	111,426,026	121,629,215	133,243,019	146,371,725	158,652,114	168,702,908	178,935,952	195,475,925	209,161,117	238,539,208	249,466,666	259,618,418
18	22,644,541	26,220,064	30,208,751	34,331,860	51,548,791	44,808,628	51,084,917	56,861,328	64,096,711	71,888,039	78,738,741	85,349,734	94,578,756	103,550,838	113,509,732	122,811,206	135,692,893	147,746,492	157,615,038	167,665,832	183,916,386	197,366,230	226,247,640	235,543,339	245,551,159
19	19,539,600	22,920,620	26,703,523	30,624,350	35,017,046	53,756,524	46,631,295	52,170,802	57,245,318	64,818,803	71,483,171	77,919,112	86,910,063	95,665,522	105,371,121	114,449,889	124,766,808	136,593,617	146,279,914	156,148,460	172,109,594	185,324,089	213,708,818	222,847,359	231,360,747
20	18,624,660	19,986,178	23,563,297	27,281,841	31,459,029	36,803,212	56,212,066	47,845,277	52,711,675	58,023,318	64,501,353	70,762,241	79,515,121	88,035,957	97,506,261	106,362,324	116,432,225	125,904,232	135,408,342	145,094,638	160,766,352	201,633,547	210,614,930	218,984,386	227,991,315
21	17,869,212	19,036,227	20,476,713	23,992,974	27,954,653	33,063,248	38,507,696	57,717,135	48,231,675	53,325,475	57,868,826	63,954,663	72,469,471	80,764,684	89,909,693	98,624,051	108,446,933	117,692,212	125,303,986	134,808,034	150,190,328	162,934,128	190,135,493	199,149,718	207,375,243
22	17,806,691	18,779,204	20,013,906	21,429,884	25,176,055	29,995,860	35,198,495	40,027,289	59,037,427	49,353,409	53,710,427	57,978,711	66,255,449	74,325,038	83,306,752	91,714,024	101,293,269	110,311,758	117,741,283	125,353,057	140,445,931	152,954,383	179,849,066	188,516,133	196,597,726
23	17,018,662	18,486,672	19,515,590	20,729,286	22,237,848	26,795,618	31,729,685	36,321,576	40,563,620	60,217,395	49,392,419	53,485,651	59,290,517	67,134,484	75,871,902	84,059,850	93,388,696	102,180,395	109,427,671	116,857,196	128,945,051	141,218,154	167,616,156	176,126,065	184,063,726
24	17,613,745	18,197,252	19,020,387	20,031,800	21,324,853	23,160,179	27,825,987	32,180,974	36,214,901	40,655,172	60,007,851	48,557,703	54,124,498	59,625,842	68,118,965	76,084,207	85,166,035	93,730,944	100,795,971	108,043,248	119,841,682	129,671,188	155,572,508	163,925,259	171,718,988
25	17,577,288	18,146,293	18,763,644	19,572,774	20,650,318	22,223,455	24,102,349	28,220,432	32,046,241	36,268,670	40,066,687	59,528,247	49,138,539	54,414,260	60,370,888	68,113,424	76,948,234	85,286,353	92,169,132	100,743,174	120,337,332	141,081,650	149,277,243	156,920,742	165,001,951
26	18,259,493	18,453,996	18,865,563	19,472,411	20,334,446	21,645,393	23,255,874	24,914,203	28,531,894	32,536,480	36,148,164	39,716,239	61,001,467	49,856,991	55,569,321	60,999,529	69,587,321	77,698,650	84,399,180	91,281,958	102,501,553	111,860,363	132,107,999	138,671,835	146,177,699
27		19,079,625	19,285,408	19,689,974	20,336,500	21,385,258	22,727,325	24,148,750	25,605,574	29,392,316	32,817,667	36,210,690	41,063,272	62,533,568	51,355,785	56,563,285	62,586,308	70,470,848	76,989,129	83,689,658	94,619,834	103,743,295	123,494,250	129,900,927	135,912,360
28		19,612,173	19,814,455	20,245,473	21,032,041	22,105,695	23,290,216	24,538,922	26,063,822	29,302,839	32,520,810	37,135,321	41,734,173	64,092,362	51,942,710	57,718,715	63,248,515	69,584,546	76,102,578	86,743,625	95,631,696	114,885,970	121,135,489	127,002,960	133,135,487
29			20,229,524	20,445,032	20,969,411	21,774,652	22,722,268	23,762,857	25,069,914	26,374,248	29,417,166	33,793,606	38,166,835	43,146,282	65,488,193	53,437,359	58,740,368	63,184,126	69,520,158	79,871,494	88,524,259	107,281,851	113,734,212	119,097,781	125,417,851
30				20,938,291	21,200,480	21,737,307	22,448,020	23,280,490	24,369,705	25,487,705	26,713,071	30,851,440	34,999,404	36,734,198	44,273,583	67,629,409	54,631,770	58,893,280	63,337,038	70,683,354	72,232,201	90,493,111	96,428,314	102,007,951	108,007,951
31					21,979,766	22,453,575	23,077,928	23,949,299	24,880,966	25,931,928	27,597,778	31,519,761	39,010,618	40,327,297	45,362,247	68,739,114	54,290,397	58,542,462	65,609,343	73,791,412	91,55				