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目 录

第一部分 学校概况及教学管理文件

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.....	4
2016	5
2016	8

第二部分 本科专业教学计划

1.	17
2.	18
3.	20

第三部分 本科专业教学计划

1.	21
2.	30
3.	40
4.	49
5.	61
6.	70

7.	.....	78
8.	.....	86
9.	.....	95
10.	.....	105
11.	.....	115
12.	.....	125
13.	.....	134
14.	.....	144
15.	.....	154
16.	.....	164
17.	.....	174
18.	.....	184
19.	.....	192
20.	.....	200
21.	.....	209
22.	.....	217
23.	.....	227
24.	.....	237
25.	.....	246
26.	.....	257
27.	.....	267
28.	.....	276
29.	.....	284
30.	293
31.	301
32.	312
33.	324

第一部分

学校概况及教学管理文件



	1965	1978	1956
	12159	1136	1023
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1	312301			1	10(2)		
2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311303				4(2)		
7	311105	1			2		
8	311106	2			2		
9	311107	3			2		
10	311108	4			2		
11	311109	5			2		
12	311110	6			2		
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	307101		3	48	24	24		1/2	
	311102		2	32	32			1/2	
	313101		1	30	30			1	
	312102		4	64	64			2	
	311101		2	32	32			1/2	
	314101		1.5	24	24			2	
	313102		1	30	30			2	
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	313103		1	30	30			3	
	312104		4	64	64			4	
	311103		2	32	32			3/4	
	313104		1	30	30			4	
	311104		4	64	64			3/4	
	311105	1	0.4	28	16		2 12	1	
	311106	2	0.4	28	16		2 12	2	
	311107	3	0.3	18	6		2 12	3	
	311108	4	0.3	18	6		2 12	4	
	311109	5	0.3	18	6		2 12	5	
	311110	6	0.3	18	6		2 12	6	
			36.5	736	640	24	12 72		

				38- 45				
				20- 22				
	312301		2	60		10	1	
	314301		2	112		14	2	
	314302		2	168		21		
	311301		1	16		2		
	311302		1	16		2		
	311303		2	32		4		
			10	404		53		

					16-22						
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		12									

第二部分

本科专业教学计划（公共教学部分）



1.

	312101		4	64	64			1	
	307101		3	48	24	24		1/2	
	311102		2	32	32			1/2	
	313101		1	-		1.			

2 ()

	311201	KAB	1.5	24		1.5	
	311202		1.5	24			
	311203		1.5	24			
	309206		1.5	24			
	311204		1.5	24			
	311206		1.5	24		1.5	
	311207		1.5	24			
	311208		1.5	24			
	311209		1.5	24			
	311210		1.5	24			
	302203		1.5	24		1.5	
	302207		1.5	24			
	302201		1.5	24			
	302212		1.5	24			
	303204		1.5	24			
	303205		1.5	24			
	303201		1.5	24			
	305201		1.5	24			
	305202		1.5	24			
	301201		1.5	24			1.5
	301202		1.5	24			
	301203		1.5	24			
	301206		1.5	24			
	306201		1.5	24			
	306202		1.5	24			
	306209		1.5	24			
	307201		1.5	24			
	307202		1.5	24			
	304201		1.5	24		1.5	
	304202		1.5	24			
	304204		1.5	24			
	304211		1.5	24			
	304215		1.5	24			
	304220		1.5	24			

3.

专业名称	总学分	理论学分		实践学分		实践学分 比例
		必修	选修	实验	实习	
	187	82.1	28	28.4	48.5	41.12%
	243	97	45.5	46.5	54	41.36%
	183	79.5	36	19	48.5	36.89%
	178	78.5	33.5	19	47	37.08%
	184.5	83	36	17.5	48	35.50%
	185	82.4	32	23.6	47	38.16%
	186	82.7	32	24.3	47	38.33%
	183	83.75	30	24.75	44.5	37.84%
	186.5	79.5	28.1	33.4	45.5	42.31%
	195.5	86	41	17.5	51	35.04%
	179	72.5	38	17	46.5	35.47%
	180	80.5	31	22.5	46	38.00%
	184	81	29	30	44	40.22%
	187	82	29	30	46	40.64%
	181	83.5	33	20.5	44	35.64%
	181.5	84	33	20.5	44	35.54%
	195	69.5	29.5	45.5	50.5	49.23%
	187	81.5	31.5	26.5	47.5	39.57%
	187	84.5	31	23	48.5	38.24%
	180	83	26	26	45	39.44%
	176	56	26	50	44	53.41%
	185.5	86.4	29.2	20.9	49	37.69%
	187.5	88	31.9	19.6	48	36.05%
	190	88.4	31.5	21.1	49	36.89%
	183.5	78.5	26	32	47	43.05%
	184.5	73	26	36.5	49	46.34%
	186	81.125	30.5	33.375	41	39.99%
	190.5	69	27.5	45	49	49.34%
	179.5	80	30.5	20	49	38.44%
	179.5	80.5	31.875	18.125	49	37.33%

第三部分



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4	25.8	428	9.3	164	9	144			3	48	1.5	24	3	48	2.5	1.8		
4()																		
5	24.3	390	0.3	6			13	208	7	112	1	16	3	48	1	1.8		
5()															0.5	0.6		
6	17.8	286	0.3	6			9	144	4.5	72	1	16	3	48	1.5	2.2		

3.2			I		4-8
3.3			II		5-8
4.1					1-8
4.2			II I-III		7-8
4.3			II I-III		7-8
4.4			II I-III		7-8
4.5			II I-III		7-8
4.6					7-8

3

1	307101		/	1	24		
2	301422		/	1	21		
3	302804	I	/	1	(12)		
4	301423		/	2	27		
5	302805	II	/	2	(36)		
6	301424		/	2	36		
7	305422		/	2	24		
8	313418		/	3	12		
9	306451		/	3	10		

10	302401		/	3	14		
11	301411		/	3	18		
12	301413		/	4	24		
13	301498		/	3	24		
14	302806	III	/	3	(36)		
15	302512		/	4	18		
16	302402		/	4	6		
17	302514		/	5	8		
18	302515		/	5	8		
19	302625		/	5	4		
20	302513		/	5	12		
21	302630		/	5	6		
22	302516		/	5	12		
23	305645		/	3	12		
24	302822	I	/	4	32		
25	302621		/	4	12		
26	302623		/	5	14		
27	302823	II	/	5	32		
28	302517		/	6	10		
29	302628		/	6	6		
30	302629		/	6	8		
31	302622		/	6	4		
32	302632		/	6	22		
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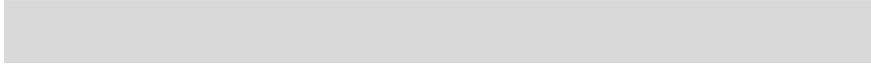
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2	314302				14	2	
3	314301			2	21	2	
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14	305861			2	3	0.5	
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17	302849			5	3	0.5	
18	302852			5	3	0.5	
19	302824			5	4	0.5	
20	302825			6	3	0.5	
21	302851			6	3	0.5	
22	302828			3	8	3	
23	302850			4	3	0.5	
24	302826			7	80	16	
25	302828			8	60	12	
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	312101		4	64	64			1	
	307101		3	48	24	24		1	
	311102		2	32	32			1	
	313101		1	30	30			1	
	312102		4	64	64			2	
	311101		2	32	32			2	

	302401		3	48	34	14		3	
	301411		3	48	30	18		3	
	301413		4	64	40	24		4	
	302402		2	32	26	6		4	
			44	704	488	216	3	-	
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	302513		4	64	52	12	4	5	
	302514		2	32	24	8	3	5	
	302515		2	32	24	8		5	
	302516		2	32	20	12		5	
	302517		4	64	54	10	3	6	
	306599		2	32	24	8		6	
	302519		3	48	32	16		6	
			22	352	260	92	13	-	
	312301		2	(60)			10	1	
	314301		2	(112)			14	2	
	314302		2	(168)			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	(404)			53		
	302804		0.5	12		12		1	
	302805		1.5	36		36		2	
	302806		1.5	36		36		3	
	302826		16				80	7	
	302827		12				60	8	
	302828		3				(30)	3-8	
			34.5	84	0	84	140		

	2	32	16	16	3	3	
	1.5	24	24		3	4	
	1.5	24	24			4	
	1.5	24	12	12		4	
	1.5	36		36		4	
	1.5	32		32		5	
	1.5	24	20	4		5	
	1.5	24	10	14		5	
	1.5	24	4	20		5	
	1.5	24	20	4		5	
	1.5	24	24			5	
	1.5	24	24			5	
	2	32	26	6	3	6	
	1.5	24	16	8		6	
	1.5	24	18	6	3	6	
	1.5	24	24			6	
	1.5	24	2	22		6	
	1.5	24	24			5	
	1	16	16			6	
	29	484	304	180	12		
	1.5	24	24	0		5	
	1.5	24	24	0		5	
	1.5	24	24			5	
	1.5	24	12	12		6	
	2	32	24	8		6	



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	243	97	45.5	46.5	54	35	1.5	10	39.5	21	7	22.5	10	6	18.5	12.5	13.5	1.5		1	2			
																				3	4.5	6	31	
	100	39.9	16.3	19.1	24.7	14.4	0.6	4.1	16.3	8.3	2.9	9.3	4.1	2.5	7.6	5.1		5.6	0.6		1.2	1.9	2.5	12.8

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(54)

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1.1					1	48	
1.2					1-4	256	
1.3					1	48	
1.4					5	32	
1.5					1	48	
2.1					1-6	128	
2.2					1	64	
					2	64	
					2	64	
2.3					8	48	
					8	48	
2.4					5	16	
2.5							
3.1						6	64
3.2					7	56	
					7	56	
3.3					8	56	
					7	56	
					8	56	
					5	48	
4.1						1	2
4.2							3
4.2						2	
4.3							

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1	307101		/	1	24		
2	301422		/	1	21		
3	303401		/	1	16		
4	301423		/	2	24		
5	301424		/	2	36		
6	303407		/	2	40		
7	303408		/	3	24		
8	301492		/	3	24		
9	301495		/	3	24		
10	303409		/	4	30		
11	303410		/	4	12		
12	303414		/	4	6		
13	303411		/	5	24		
14	303412		/	5	24		
15	303413			6	12		
16	303624		/	5	10		
17	303509			6	24		
18	303510		/	6	32		
19	303514		/	7	16		
20	303617		/	6	14		
21	303512			7	16		
22	303513			8	16		
23	303511		/	7	16		
24	303515		/	6	16		
25	303516		/	8	20		
26	303634			6	32		
27	303635			8	32		
28	303633			7	32		

29	303616			7	14		
30	303618			7	10		
31	303619			7	10		
32	303622			8	6		
33	303623			8	6		
34	303625			5	12		
35	303626			6	10		
36	303627			6	4		
37	303628			7	10		
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41	303635			8	32		
42	303636			8	32		
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44	303710			7	10		
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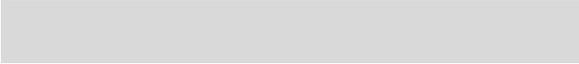
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7	311305				2		
8	303801			2	5		
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10	301897			3	5		
11	301899			3	5		
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14	303814			5	5		
15	303815			6	5		
16	303816			6	5		
17	303818			7	10		
18	303817			8	10	/ /	
19	303819			10	50		
20	303820			9	80		
21	303821			10	60		
					308		

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	312101		4	64	64			1	
	307101		3	48	24	24		1	
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	313101		1	30	30			1	
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	311101		2	32	32			2	
	314101		1.5	24	24			2	
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	312103		4	64	64			3	
	313103		1	30	30			3	
	312104		4	64	64			4	
	311103		2	32	32			4	
	313104		1	30	30			4	
	311104		4	64	64			3	
	311105	1	0.4	28	16		2 12	1	
	311106	2	0.4	28	16		2 12	2	
	311107	3	0.3	18	6		2 12	3	
	311108	4	0.3	18	6		2 12	4	
	311109	5	0.3	18	6		2 12	5	
	311110	6	0.3	18	6		2 12	6	
			36.5	736	640	24	72		
	313401	I	4.5	72	72			1	
	301422		4	64	43	21		1	
	303401		3	48	32	16		1	
	303407		5	80	40	40		2	
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	301424		4	64	28	36		2	
	313412		3	48	30	18		3	

	303630		2	32	24	8		3	
	303631		2	32	32			4	
	303615		2.5	40	40			5	
	303624		1.5	24	18	6		5	
	303625		1.5	24	12	12		5	
	303617		2	32	18	14		6	
	303626		2	32	20	12		6	
	303627		1.5	24	20	4		6	
	303634	**	2	32		32		6	
	303637	*	1.5	24	24			6	
	303633	**	2	32		32		7	
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	303621		1.5	24	24			8	
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	303622		1.5	24	18	6		8	
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	303635	**	2	32		32		8	
	303636	***	2	32		32		8	
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	303712		1.5	24	24			5	
	303611		1.5	24	24			5	
	303707	**	3	48	48			6	
	303609		1.5	24	24			7	
	303607		1.5	24	24			7	
	303713		1.5	24	24			7	
	303710		1.5	24	14	10		7	
	303711		1.5	24	24			7	
	303714		1.5	24	16	8		8	
	303709		1.5	24	24			8	
	306799		1.5	24	14	10		8	
			19	304	276	28			
**		31		15		*			
		***	20						



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1	24.4	434	10.4	202	8.5	136			5.5	96						0.4		
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6	1	24					1	24							1	1		
7																	16	16
7																		
8																	15	12
/															6	6		
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1.1					1-2 5-7
1.2					1 5 6-7
1.3			I-IV		1-8
1.4					1-8
2.1					1-7
2.2					3-8
2.3					3-4 6-7
2.4					1-8
3.1					1-8
3.2					1-8
3.3					3-8
4.1			PPT		1-8
4.2					1-8
4.3					1-8
4.4					3-8

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1	307101		/	1	24		
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4	301423		/	2	27		
5	301424		/	2	36		
6	313410		/	2	18		
7	306499		/	3	24		
8	301502	I	/	2	24		
9	301403		/	3	60		
10	301405		/	4	36		
11	301504	I	/	4	24		
12	301606		/	4	16		
13	301603		/	3	16		
14	301506		/	5	24		
15	301508		/	5	36		
16	301707	()	/	5	48		
17	301611		/	5	16		
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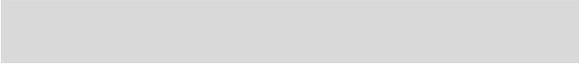
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2	314301			2	14(2)		
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5	311301				2(1)		
6	311302				2(1)		
7	311304				2(1)		
8	311305				2(1)		
9	311105	1			2		
10	311106	2			2		
11	311107	3			2		
12	311108	4			2		
13	311109	5			2		
14	311110	6			2		
15	301830	—		1-2	5(1)		
16	301801			2	5(1)		
17	301802			3-4	5(1)		
18	301803			3	3(0.5)		
19	301804	—		3-4	5(1)		
20	301805			4	5(1)		
21	301806			4-4	5(1)		
22	301813			6	5(1)		
23	301807			5-7	3		
24	301808			7	80(16)		
25	301809			8	60(12)		
		--		--	245 (48 5)		

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	311102		2	32	32				1
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	312102		4	64	64				2
	311101		2	32	32				2
	314101		1.5	24	24				2
	313102		1	30	30				2
	312103		4	64	64				3
	313103		1	30	30				3
	312104		4	64	64				4
	311103		2	32	32				4
	313104		1	30	30				4
	311104		4	64	64				3
	311105	1	0.4	28	16		2 (12)		1
	311106	2	0.4	28	16		2 (12)		2
	311107	3	0.3	18	6		2 (12)		3
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	301502	I	1	24		24		2	
	301503	I	2.5	40	40			4	
	301504	I	1	24		24		4	
	301505		2	32	32			5	
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	301507		2	32	32			5	
	301508		1.5	36		36		5	
	301509		1.5	24	24			5	
	301510		2.5	40	40			5	
	301511		1.5	36		36		5	
	301512		2	32	32			6	
	301513		1	24		24		6	
			22	408	240	168			
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	314301		2	(112)			14	2	
	314302		2	(168)			21		
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			10	(404)			53		

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	301699		1	24		24		1	
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	301615		1	16	16			6	
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	301704		2	32	32			6	
	301705		2	48		48		6	
	301706		3	48	48			6	
			14.5	264	168	96			



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																			1	2	
	178	78.5	33.5	19	47	35	1.5	10	29	9.5	6	14.5	5.5	15	1	3.5	1.5	3	6	6	31
	100	44.1	18.8	10.7	26.4	19.7	0.8	5.6	16.3	5.3	3.4	8.1	3.1	8.4	0.6	2.0	0.8	8.4		17.4	
	$\frac{2252}{47}$	1330	520	402	47	640	24	1^3	458	186	6	232	132	240	24	56	36	240		28	
1.	1						2														
2.	(1.5+1.5+1.5×3=7.5)		7.5				(1.5+1.5+1.5×4=9),				6										

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1.2					1 6-8
1.3			I-IV		1-8
1.4					1-2 6-8
2.1					1-8
2.2					3-8
2.3					3-4 6-8
2.4					1-8
3.1					1-8
3.2					1-8
3.3					1-8
4.1			PPT		1-8
4.2					1-8
4.3					1-8
4.4					7-8

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1	307101		/	1	24		
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3	301699		/	1	24		
4	301423		/	2	27		
5	301424		/	2	36		
6	313410		/	2	18		
7	301619	I	/	2	24		
8	301603		/	3	16		
9	301712		/	4	36		
10	301403		/	3	60		
11	306499		/	3	24		
12	301621	I	/	4	24		
13	301606		/	4	16		
14	301611		/	5	16		
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17	301506		/	5	24		
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19	301705		/	6	48		
20	301513		/	6	24		
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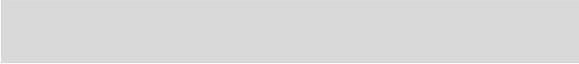
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	301515		2	32	32			6	
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	314301		2	112			14	2	
	314302		2	168			21		
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			10	404			53		

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	301612		1.5	24	24			6	
	301613		1.5	24	24			6	
	301614		1.5	24	24			6	
	301615		1	16	16			6	
	301601		1	16	16			6	
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	301713		2.5	40	40			5	
	301714		1.5	36		36		5	
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	301715		2	32	32			5	
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*		21		16				5	

			4	64	64		
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			2	32	32		

			2.5	40	40		
			1				5
			2.5	40	40		
			1	24		24	
			1	16	16		
			0.5				3
			1.5	24	8	16	
			1	16	16		
			26.3	452	340	100	10
4			4	64	64		
			3	32	32		
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			4	64	64		
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	1		1	24		24	
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			1.5	24	8	16	
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			1				5
			1	16	16		
			1				5
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	-		1				5
		1				5	
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7			16				80
			16				80
8			12				60
			3				
			15				60



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2.2					
2.3					5-8
3.1					1-7
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1	307101		/	1	24		
2	301487		/	1	48		
3	301693		/	1	16		
4	201430		/	2	48		
5	301434		/	3	48		
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7	313410		/	2	18		
8	301520		/	3	28		
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12	301438		/	5	24		
13	301525		/	5	32		
14	301528		/	6	24		
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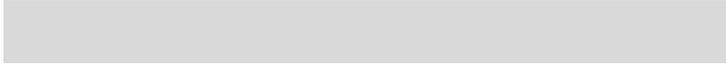
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6	314302			2	21	2	
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8	301821			3-5	20	4	
9	301823			5	5	1	
10	301824			6	3		
11	301807			5-8	3		
12	301808			7	80		
13	301809			8	60		
14	311301				2		
15	311302				2		
16	311304				2		
17	311305				2		
18	311105	1			2		
19	311106	2			2		
20	311107	3			2		
21	311108	4			2		
22	311109	5			2		
23	311110	6			2		
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	313102		1	30	30			2	
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	311104		4	64	64			3	
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	311103		2	32	32			4	
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	311105	1	0.4	28	16		12	1	
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	302643		1.5	24	24			6	
	302647		1.5	24	16	8		6	
			34.5	560	500	80			
	301737		2.5	40	40			3	
	301731		1	24		24		3	
	301732		1.5	24	24			4	
	301733		1	16	16			4	
	301734		1.5	24	8	16		5	
	301735		2.5	40	40			5	
	301736		1	24		24		5	
	301738		1.5	24	24			6	
			12.5	216	152	64			
		21			16				5



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	185	82.4	32	23.6	47	35	1.5	10	30.1	13.9	0.5	17.3	3.7	2	13.4	3.1	0	3.6	1.4	0	1	2	31+3.5	
	100	44.4	17.3	12.7	25.6	18.9	0.8	5.4	16.2	7.5	0.3	9.3	2	1.1	7.2	1.7	0	1.9	0.8	0	1.6	3.2	3.2	18.6

2372
 +44.6
 () .91467 .846

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1	307101		/	1	24		
2	302801		/	1	(12)		
3	301422		/	1	21		
4	301423		/	2	27		
5	302802		/	2	(36)		
6	301424		/	2	36		
7	305422		/	2	24		
8	313418		/	3	12		
9	302803		/	3	(36)		
10	301402		/	3	24		
11	306451		/	3	10		
12	302401		/	3	14		
13	301411		/	3	18		
14	305429		/	4	6		
15	302501		/	4	8		
16	301413		/	4	24		
17	302602		/	4	12		
18	302508		/	4	12		
19	302402		/	5	6		
20	302502		/	5	6		
21	302701		/	5	8		
22	302605		/	5	6		
23	302702		/	5	14		
24	302613		/	6	8		
25	302511		/	6	8		
26	302506		/	6	10		
27	302614		/	6	24		
28	302507		/	6	16		
		--		--	378		

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1	312301				10	2	
2	314301				14	2	
3	314302				21	2	
4	311301				2		
5	311302				2		
6	311304				2		
7	311305				2		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		

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	312101		4	64	64				1
	307101		3	48	24	24			1
	311102		2	32	32				1
	313101		1	30	30				1
	312102		4	64	64				2
	311101		2	32	32				2
	314101		1.5	24	24				2
	313102		1	30	30				2
	312103		4	64	64				3
	313103		1	30	30				3
	311103		2	32	32				4
	311104		4	64	64				3
	312104		4	64	64				4
	313104		1	30	30				4
	311105	1	0.4	28	16		2	12	1
	311106	2	0.4	28	16		2	12	2
	311107	3	0.3	18	6		2	12	3
	311108	4	0.3	18	6		2	12	4
	311109	5	0.3	18	6		2	12	5
	311110	6	0.3	18	6		2	12	6
			36.5	736	640	24	12	72	
	313401		4.5	72	72				1
	301422		4	64	43	21			1
	301423		5	80	53	27			2
	301424		4	64	28	36			2
	305422		4.5	72	48	24	3		2
	313418		2	32	20	12			3
	301402		4	64	40	24			3
	306451		2	32	22	10			3
	302401		3	48	34	14			3
	301411		3	48	30	18			3

	302601	*	1.5	24	24			4		
	302602		2	32	20	12		4		
	302638	()	1.5	24	24			4		
	302604		1.5	24	24			4		
	302605		2	32	26	6		5		
	302606		1.5	24	24			5		
	302607		1.5	24	12	12		5		
	302608		1.5	24	24			5		
	302609		1.5	24	24			5		
	302610		1.5	24	24			5		
	302611		1.5	24	24			6		
	302612		1.5	24	24			6		
	302613		1.5	24	16	8		6		
	302614		2	32	8	24		6		
	302615		1.5	24	24			6		
	302616		1.5	24	24			6		
	302617		1.5	24	24			6		
	302618		1.5	24	24			6		
	302619		1.5	24	4	20		6		
			30	480	398	82				
	302701		2	32	24	8		4		
	302702		1.5	24	10	14		5		
	302703		1.5	24	24			5		
	302704		1.5	24	18	6		5		
	302705		1.5	24	16	8		5		
	302706		1.5	24	20	4		5		
	302707		1.5	24	18	6		6		
			11	176	130	46				
	16.5		*							5



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																				1	2			
	186	82.7	32	24.3	47	35	1.5	10	30.1	13.9	1	17.6	4.4	2	13.4	3.1	0	3.6	1.4	0	3	6	6	31+3.5

2

1.1					1-5
1.2					1-8
2.1					1 3 6
2.2					1-8
2.3					2 3 4 6
3.1					5-8
3.2					5-7
3.3					4 5
3.4					4 6-8
3.5					6-8
4.1					5-8

3

1	307101		/	1	24		
2	302801		/	1	(12)		
3	301422		/	1	21		
4	301423		/	2	27		
5	302802		/	2	(36)		
6	301424		/	2	36		
7	305422		/	2	24		
8	313418		/	3	12		
9	302803		/	3	(36)		
10	301402		/	3	24		
11	306451		/	3	10		
12	302401		/	3	14		
13	301411		/	3	18		
14	305429		/	4	6		
15	302501		/	4	8		
16	301413		/	4	24		
17	302602		/	4	12		
18	302402		/	5	6		
19	302503		/	5	8		
20	302504		/	5	12		
21	302502		/	5	6		
22	302701		/	5	8		
23	302605		/	5	6		
24	302702		/	5	14		
25	302613		/	6	8		
26	302614		/	6	24		
27	302505		/	6	2		
28	302506		/	6	10		
29	302540		/	6	8		
30	302507		/	6	16		
		--		--	388		

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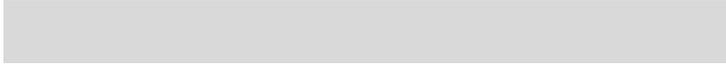
1	312301			1	10 2			
2	314301			2	14 2			
3	314302				21 2			
4	311301				2(1)			
5	311302				2(1)			
6	311304				2(1)			
7	311305				2(1)			
8	311105	1			2			
9	311106	2			2			
10	311107	3			2			
11	311108	4			2			
12	311109	5			2			
13	311110	6			2			
14	305861			2	3 0.5			
15	305862			4	1			
16	302810			4	3 0.5			
17	302811			6	3 0.5			
18	302812			5	3 0.5			
19	302820		/	3-8	3			
20	302813			6	1			
21	302814			6	3 0.5			
22	302818		/	7	80 16			
23	302819		/	8	60 12			
		--		--	222 43.5			

5

	312101		4	64	64			1	
	307101		3	48	24	24		1	
	311102		2	32	32			1	
	313101		1	30	30			1	
	312102		4	64	64			2	
	311101		2	32	32			2	
	314101		1.5	24	24			2	
	313102		1	30	30			2	
	312103		4	64	64			3	
	313103		1	30	30			3	
	311103		2	32	32			4	
	311104		4	64	64			3	
	312104		4	64	64			4	
	313104		1	30	30			4	
	311105	1	0.4	28	16		2 12	1	
	311106	2	0.4	28	16		2 12	2	
	311107	3	0.3	18	6		2 12	3	
	311108	4	0.3	18	6		2 12	4	
	311109	5	0.3	18	6		2 12	5	
	311110	6	0.3	18	6		2 12	6	
			36.5	736	640	24	12 72		
	313401		4.5	72	72			1	
	301422		4	64	43	21		1	
	301423		5	80	53	27		2	
	301424		4	64	28	36		2	
	305422		4.5	72	48	24	3	2	
	313418		2	32	20	12		3	
	301402		4	64	40	24		3	
	306451		2	32	22	10		3	
	302401		3	48	34	14		3	

	301411		3	48	30	18		3	
	301413		4	64	40	24		4	
	305429		2	32	26	6	1	4	
	302402		2	32	26	6		5	
			44	704	482	222	4		
	302501		2	32	24	8	3	4	
	302502		4	64	58	6	3	5	
	302503		2	32	24	8		5	
	302504		3	48	36	12	3	5	
	302505		3	48	46	2	1	6	
	302506		3	48	38	10	3	6	
	302507		3	48	32	16		6	
	302540		2	32	24	8		6	
			22	352	282	70	13		
	312301		2	60			10	1	
	314301		2	112			14	2	
	314302		2	168			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	404			53		
	302801	I	0.5	12		12		1	
	302802	II	1.5	36		36		2	
	302803	III	1.5	36		36		3	
	302818		16				80	7	
	302819		12				60	8	
	302820		3				(30)	3-8	
			34.5	84		84	140		





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																				1	2			
	184	83.5	30	26	44.5	35	1.5	10	33.5	11.5	0.5	15	7	2	12.4	3.6	1	2.6	2.4	0	3	6	6	31
	100	45.4	16.3	14.1	24.2	19	0.8	5.4	18.2	6.3	0.2	8.2	3.8	1.1	6.7	2	0.5	1.4	1.3	0	8.2		17	

2

1.1					1-6
1.2					1-8
2.1					1-7
2.2					2-6
3.1					3-7
3.2					3-7
4.1					1-8
4.2					1-8

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1	307101		/	1	24		
2	301422		/	1	21		
3	301423		/	2	27		
4	301424		/	2	36		
5	305422		/	2	24		
6	313418		/	3	12		
7	301498		/	3	24		
8	306452		/	3	10		
9	302651		/	3	8		
10	301627		/	3	28		
11	301413		/	4	24		
12	305429		/	4	6		
13	302527		/	4	16		
14	302528		/	4	12		
15	302722		/	4	6		
16	302701		/	4	6		
17	302723		/	4	8		
18	302652		/	4	14		
19	302529		/	5	16		
20	302530		/	5	36		
21	302531		/	5	8		
22	302532		/	5	20		
23	302657		/	6	8		
24	302721		/	6	20		
					410		

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					()		
1	312301			1	10(2)		
2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14	305861			2	3(0.5)		
15	302844			3	3(0.5)		
16	302845			4	2		
17	305862			4	1		
18	302834			4	3(0.5)		
19	302854			4	2		
20	302835			5	3(0.5)		
21	302836			5	3(0.5)		
22	302837			5	3(0.5)		
23	302838			5	3(0.5)		
24	302839			6	2		
25	302840			6	2		
26	302841			3-8	(3)		
27	302842			7	80(16)		
28	302843			8	60(12)		
					235(44. 5)		

5

	312101		4	64	64				1
	307101		3	48	24	24			1
	311102		2	32	32				1
	313101		1	30	30				1
	312102		4	64	64				2
	311101		2	32	32				2
	313102		1	30	30				2
	314101		1.5	24	24				2
	312103		4	64	64				3
	313103		1	30	30				3
	311103		2	32	32				4
	311104		4	64	64				3
	312104		4	64	64				4
	313104		1	30	30				4
	311105	1	0.4	28	16		2	12	1
	311106	2	0.4	28	16		2	12	2
	311107	3	0.3	18	6		2	12	3
	311108	4	0.3	18	6		2	12	4
	311109	5	0.3	18	6		2	12	5
	311110	6	0.3	18	6		2	12	6
			36.5	736	640	24	12	72	
	313401		4.5	72	72				1
	301422		4	64	43	21			1
	313406		2	32	32				2
	301423		5	80	53	27			2
	301424		4	64	28	36			2
	305422		4.5	72	48	24	3		2
	302403		2	32	32				2
	313408		3	48	48				3
	313418		2	32	20	12			3
	301402		4	64	40	24			3

	306452		2	32	22	10		3	
	301413		4	64	40	24		4	
	305429		2	32	26	6	1	4	
	302404		2	32	32		2	4	
			45	720	536	184	6		
	302527		3	48	32	16	2	4	
	302528		3	48	36	12	3	4	
	302529		3	48	32	16	3	5	
	302530		3	48	12	36		5	
	302531		2	32	24	8	3	5	
	302532		3	48	28	20	3	5	
	302533		3	48	48		2	6	
	302534		2	32	32		2	6	
			22	352	244	108	18		
	312301		2	(60)			10	1	
	314301		2	(112)			14	2	
	314302		2	(168)			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	(404)			53		
	302842		16				80	7	
	302843		12				60	8	
	302841		3				30	3-8	
				31			140		

	301627		3	48	20	28		3	
	302650		1.5	24	24		3	3	
	302651		2	32	24	8		3	
	302652		2	32	18	14		4	
	302653		1.5	24	24			5	
	302654	*	2	32	32		3	5	
	302655		1.5	24	24			5	
	302664		1.5	24	24			6	
	302656		1.5	24	24			6	
	302657		2	32	24	8		6	
	302658		2	32	32			6	
	302659		2	32	32			6	
	302660		2	32	32			6	
	302661		2	32	32			6	
	302662		2	32	32			6	
	302616		1.5	24	24			6	
			30	480	422	58	6		
	302724		1.5	24	24			4	
	302709		1.5	24	24			5	
	302710		1.5	24	24			5	
	302722		1.5	24	20	4		6	
	302701		1.5	24	20	4		6	
	302723		2	32	24	8		6	
	302725		1.5	24	24			6	
	302721		1.5	24	4	20		6	
			12 5	200	164	36			
			16		5	*			



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I II III

1.9

1	18.9	326	10.4	190	8.5	136										0.4	0.5	12
1															2	2		
2	22.4	382	7.4	142	13.5	216							1.5	24	1.5	1.4	1	24
2	1.5	24	1.5	24											4	7		
3	24.8	412	9.3	164	14	224							1.5	24	1	0.8	1	24
3																		
4															2	2.4		
5	25.8	414	0.3	6	2	32	11	176	8	128	3	48	1.5	24	2	2.8		
5																		
6	17.3	278	0.3	6					8	128			9	144		0.4		
6																		
7																	166	16

2

1.1			|		1-8
1.2					1 8
1.3					1-4 7
1.4					1 7
2.1					2-8
2.2					1-8
2.3					1-8
2.4					3-8
2.5					3-8
3.1					2-8
3.2					2-8
3.3			 		2-8
4.1			 		1-8
4.2			 		2-8
4.3			 		2-8
4.4			 		2-8
4.5			 		2-8
4.6					2-8

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1	307101		/	1	24		
2	301422		/	1	21		
3	302807	I	/	1	(12)		
4	305422		/	2	24		
5	301423		/	2	27		
6	301424		/	2	36		
7	302808	II	/	2	(24)		
8	301411		/	3	18		
9	301498		/	3	24		
10	302401		/	3	12		
11	306451		/	3	10		
12	313418		/	3	12		
13	302809	III	/	3	(24)		
14	301413		/	4	24		
15	305429		/	4	6		
16	302520		/				
17	302521		/	4	24		
18	302720		/	4	16		
19	302701		/	4	8		
20	302722		/	4	8		
21	302718		/	4	4		
22	302402		/	5	6		
23	302522		/	5	24		
24	302523		/	5	24		
25	302524	Š -	/	5	18		

34	302640		/	6	6		
35	302641		/	6	6		
36	302642		/	6	6		
37	302663		/	6	12		
38	302644		/	6	6		
39	302645		/	6	6		
40	302647		/	6	8		
41	302646		/	6	6		
					562		

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1	312301			1	10 2		
2	314301			2	14 2		
3	314302				21 2		
4	311301				2(1)		
5	311302				2(1)		
					2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14	305861			2	3 0.5		
16	302829		I	4	12 2		
17	302830		II	5	12 2		302830

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	312101		4	64	64				1
	307101		3	48	24	24			1
	311102		2	32	32				1
	313101		1	30	30				1
	312102		4	64	64				2
	311101		2	32	32				2
	314101		1.5	24	24				2
	313102		1	30	30				2
	312103		4	64	64				3
	313103		1	30	30				3
	311104		4	64	64				3
	312104		4	64	64				4
	311103		2	32	32				4
	313104		1	30	30				4
	311105	1	0.4	28	16		2	12	1
	311106	2	0.4	28	16		2	12	2
	311107	3	0.3	18	6		2	12	3
	311108	4	0.3	18	6		2	12	4
	311109	5	0.3	18	6		2	12	5
	311110	6	0.3	18	6		2	12	6
			36.5	736	640	24	12	72	
	313401		4.5	72	72				1
	301422		4	64	43	21			1
	301423		5	80	53	27			2
	301424		4	64	28	36			2
	305422		4.5	72	48	24	3		2
	301402		4	64	40	24			3
	313418		2	32	20	12			3
	306451		2	32	22	10			3
	302401		3	48	34	14			3
	301411		3	48	30	18			3

	305429		2	32	26	6	1	4	
	301413		4	64	40	24		4	
	302402		2	32	26	6		5	
			44	704	482	222	4		
	302520		4	64	40	24		4	
	302521		4	64	40	24		4	
	302525		1.5	24	20	4		4	
	302526		1.5	24	20	4		4	
	302522		4	64	40	24		5	
	302523		4	64	40	24		5	
	302524		3	48	30	18		5	
			22	352	230	122			
	312301		2	(60)			10	1	
	314301		2	(112)			14	2	
	314302		2	(168)			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	(404)			53		
	302808	II	1	24		24		2	

	302633		1.5	24	16	8		5	
	302634		2	32	12	20		5	
	302635		2	32	12	20		5	
	302636		1.5	24	24			5	
	302637		1.5	24	24			5	
	302623		1.5	24	10	14		5	
	302613		1.5	24	16	8		6	
	302639		2	32	4	28		6	
	302640		1.5	24	18	6		6	
	302641		1.5	24	18	6		6	
	302642		1.5	24	18	6		6	
	302643		1.5	24	24			6	
	302644		1.5	24	18	6		6	
	302645		1.5	24	16	8		6	
	302646		1.5	24	18	6		6	
	302647		1.5	24	16	8		6	
	302648		1.5	24	24			6	
	302663		1.5	24	12	12		6	
	302649	*	1.5	24	24			6	
			30	480	324	156			
	302719		1.5	24	24			4	
	302720		2	32	20	12		4	
	302704		1.5	24	18	6		5	
	302703		1.5	24	24			5	
	302710		1.5	24	24			5	
	302721		1.5	24	4	20		6	



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																			1	2		
	195.5	86	41	17.5	51	35	1.5	10	33.2	9.8	3	17.8	6.2	7	20		6		3	6	6	31
	100	44	21.1	8.2	26.6	18.0	0.8	5.1	17.1	5.0	1.5	8.9	2.4	4.1	10.3		3.1		1.5	3.1	3.1	15.9
	2392 (51)	1456	656	280	51	640	24	13	532	156	3	284	100	7	320		96		240		28	
1.	1				2																	
2																						

1.9

1	23.4	394 0.8	10.4	202	8.5	136			3.5	56					1	0.8			
1	2	2													2	2			
2	26.4	458 0.4	8.9	178	14.5	232							3	48		0.4			
2	5	8			1	1									4	7			
3	26.3	432 0.8	9.3	176	13	208							3	48	1	0.8			
3	4	3.2			2	2									2	1.2			
4	25.3	400 0.4	7.3	144	7	112	4.5	72	1.5	24	2	32	3	48		0.4		3	8
4	1	1					2	2											
5	23.8	354 0.4	0.3	18			11	176	7.5	120	2	32	3	48		0.4			
5	2	2					2	2											
6	21.3	306 0.4	0.3	18			8.5	136	7.5	120	2	32	3	48		0.4			
6	4	4					4	4											
7	16	16																16	16
7																			
8	15	12												2-6				15	12
	195.5	2392 51	36.5	664	46	688 3	30	352 8	20	352	6	152	15	240	10	13	31	28	
22																		8	

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1.2					1 3 5
2.1					1
2.2					3-6
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4.1					4-8

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1	307101		/	1	24		
2	301422		/	1	21		
3	301423		/	2	27		
4	301424		/	2	36		
5	303406		/	2	24		
6	301490		/	3	16		
7	301494		/	3	16		
8	303402		/	4	6		
9	303404	/	/	4	10		
10	303701		/	4	10		
11	301851		/	4	28		OFmđi

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1	312301			1	10(2)		
2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14	303802		/	2	5(1)		
15	301896		/	3	5(1)		
16	301898		/	3	5(1)		
17	301850		/	4	5(1)		
18	303804		/	5	5 1		

19	303805		/	5	5 1		
20	303806		/	6	5 1		
21	303807		/	6/6	15 3		
22	303808		/	7	80 16		
23	303809		/	8	3		
24	303810		/	8	60 12		
					255 51		

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	312101		4	64	64				1
	307101		3	48	24	24			1
	311102		2	32	32				1
	313101		1	30	30				1
	312102		4	64	64				2
	311101		2	32	32				2
	314101		1.5	24	24				2
	313102		1	30	30				2
	312103		4	64	64				3
	313103		1	30	30				3
	312104		4	64	64				4
	311103		2	32	32				4
	313104		1	30	30				4
	311104		4	64	64				3
	311105	1	0.4	28	16		2	12	1
	311106	2	0.4	28	16		2	12	2
	311107	3	0.3	18	6		2	12	3
	311108	4	0.3	18	6		2	12	4
	311109	5	0.3	18	6		2	12	5
	311110	6	0.3	18	6		2	12	6
			36.5	736	640	24		72	
	313401		4.5	72	72				1
	301422		4	64	43	21			1
	301423		5	80	53	27			2
	301424		4	64	28	36			2
	303406		3.5	56	32	24			2
	313406		2	32	32				2
	301491	3	3.5	56	40	16			3
	313408		3	48	48				3
	313412	III	3	48	30	18			3
	301499	3	3.5	56	40				3

	303402		2	32	26	6		4	
	303403		2 5	40	40			4	
	303404		2 5	40	30	10		4	
			43	688	532	156			
	303501		2 5	40	30	10		4	
	301851		2	32	4	28		4	
	303502		2 5	40	30	10		5	
	303507		2	32	22	10		5	
	303508		4	64	64			5	
	303504		2 5	40	30	10		5	
	303505		3	48	36	12		6	
	303506		3	48	36	12		6	
	303503		2 5	40	32	8		6	
			24	384	284	100			
	312301		2	60			10	1	
	314301		2	112			14	2	
	314302		2	168			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	404			45		

	303603		1	16	16			1	
	303701		2.5	40	30	10		1	
	303608		1.5	24	24			3	
	303611		1.5	24	24			3	
	303605		1.5	24	24			4	
	303641		2	32	32			5	
	303607		1.5	24	24			5	
	303604		2	32	32			5	
	303602		1.5	24	24			5	
	303609		1.5	24	24			5	
	303640	*	1	16	16			5	
	303606		1.5	24	24			6	
	303610		1.5	24	18	6		6	
	303612		1.5	24	24			6	
	303613		2.0	32	24	8		6	
	303614		2.0	32	24	8		6	
	303650		2.0	32	24	8		6	
			28	448	408	40			
	303702		2.5	40	30	10		4	
	303631		2	32	32			4	
	303703		3	48	38	10		5	
	303704		1.5	24	24			6	
	303705		1.5	24	24	4		6	
	303715		1.5	24	24	0		6	
	303706		1.5	24	20	4		6	
	306799		2	32	24	8		6	
			15.5	248	216	36			
			22			8		*	



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	179	77.5	38	17	46.5	35	1.5	10	30.5	5	2.5	12	5.5	3	18	4		5	1		
	100	43	21	10	26	20	1	6	17	3	1	6	3	2	10	2		3	1		
()	2216+ 48	1320	608	288	48	640	24	13	488	80	2.5	192	104	4.5	288	64		80	16		
																		1	2		
																		3	4.5	7.5	31
																		2	3	4	17
																		48	72	120	28

1.9

1	16.9	294	7.4	142	9.5	152								1	0.8			
1														2	2			
2	26.9	454	10.4	190	9.5	152			4	64			3	48		0.2		
2	1.5	24	1.5	24										4	7			
3	25.3	420	7.3	132	11	176			4	64			3	48	1	0.8		
3														1	0.8			
4	29.8	492	9.3	164	3	48	8	128	4.5	72	2	32	3	48	1	0.8		
4														1.5	2			
5	17.3	278	0.3	6	2.5	40	7.5	120	4	64			3	48		0.2		
5														1	1			
6	12.8	206	0.3	6					5.5	88	4	64	3	48	3	4.4		
6																		
7	2	48					2	48									16	16
7																		
8																	15	12
	132.5	2216	36.5	664	35.5	568	17.5	296	22	352	6	96	15	240	15.5	20	31	28

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1.1					1
1.2					4 5
1.3					2 5-8
1.4					1 2 3 4
2.1					2 3 5
2.2					7 3
3.1					3 5
					4 5
					4
					4 5
4.1		*		1 4 5 5 5 6 6 3	

30	304671		/	5	8		/ /
31	304672		/	5	8		/ /
32	304666		/	5	8		/ /
33	304656		/	6	8		/ /
34	304657		/	6	8		/ /
35	304658		/	2	8		/ /
36	304660		/	6	8		/ /
37	304689		/	5	8		/ /
38	304687		/	4	8		/ /
		--		--	448		
*							

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					()		
1	312301			1	10(2)		
2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	304826			2	3		
9	304825			3	3		
10	304823			3	3		
11	304831			3	3		
12	304832			4	3		
13	304833			4	3		
14	304827			4	3		
15	304828			4	3		
16	304829			5	3		
17	304834			5	3		
18	304830			5	3		
19	304815			5-8	3		
20	304814			7	80(16)		
21	304816			8	60(12)		
		--		--	226		

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	312101		4	64	64			1	
	307101		3	48	24	24		2	
	311102		2	32	32			2	
	313101		1	30	30			1	
	312102		4	64	64			2	
	311101		2	32	32			1	
	314101		1.5	24	24			2	
	313102		1	30	30			2	
	312103		4	64	64			3	
	313103		1	30	30			3	
	312104		4	64	64			4	
	311103		2	32	32			3	
	313104		1	30	30			4	
	311104		4	64	64			4	
	311105	1	0.4	28	16		2 (12)	1	
	311106	2	0.4	28	16		2 (12)	2	
	311107	3	0.3	18	6		2 (12)	3	
	311108	4	0.3	18	6		2 (12)	4	
	311109	5	0.3	18	6		2 (12)	5	
	311110	6	0.3	18	6		2 (12)	6	
			36.5	736	640	24	12 (72)		
	304401		3	48	32	16		1	
	304403		2	32	24	8		1	
	313402		4.5	72	72			1	
	304417		3	48	48			2	
	313403		3.5	56	56			2	
	313407		3	48	48			2	
	304410		3	48	40	8		3	
	304413		3	48	48			3	
	304419		3	48	32	16		3	

	313416		2	32	32			3	
	304823		0.5				3	3	
	304825		0.5				3	3	
	304826		0.5				3	3	
	304831		0.5				3	3	
	304416		3	48	32	16		4	
	304827		0.5				3	4	
	304414		2.5	40	24	16		5	
			38	568	488	80	15		
	304528		3	48	32	16		4	
	304832		0.5				3	4	
	304521		2.5	40	32	8		5	
	304843		0.5				3	5	
	304529		2.5	40	32	8		4	
	304828		0.5				3	4	
	304534		2.5	40	32	8		4	
	304833		0.5				3	4	
	304531		2.5	40	32	8		5	
	304829		0.5				3	5	
	304533		2.5	40	32	8		5	
	304830		0.5				3	5	
	304801		2	48		48		7	
			20.5	296	192	104	18		
	312301		2	(60)			10	1	
	314301		2	(112)			14	2	
	314302		2	(168)			21	2	
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	(404)			53		
	304815		3					5-8	
	304814		16				80	7	
	304816		12				60	8	
			31				140		

		304663	2	32	24	8		2	
		304665	2	32	24	8		2	
		304606	2	32	16	16		3	
		304664	2	32	24	8		4	
		304662	2	32	24	8		3	
		304674	2	32	24	8		3	
		304655	2	32	24	8		4	
		304668	*	2	32	24	8	4	
		304683	2	32	16	16		4	
		304687	2	32	24	8		4	
		304666	2	32	24	8		5	
		304661	2	32	16	16		5	
		304670	2	32	24	8		5	
		304654	2	32	24	8		5	
		304689	2	32	24	8		5	
		304671	2	32	24	8		5	
		304672	2	32	24	8		5	
		304656	2	32	24	8		6	
		304657	2	32	24	8		6	
		304658	2	32	24	8		2	
		304660	2	32	24	8		6	
		304688	2	32	24	8		1	
			44	704	504	200			
		304708	2 5	40	32	8		5	
		304720	2 5	40	32	8		2	
		304715	3	48	32	16		4	
		304725	2 5	40	16	24		3	
		304717	2 5	40	32	8		5	
		304716	2 5	40	32	8		6	
		304705	2	32	16	16		4	
			17.5	280	192	88			
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																				1	2			
	180	80.5	31	22.5	46	35	1.5	10	32.5	7	3	13	8	2	12.5	3.5		3.5	2.5		3	4.5	7.5	31
	100	45	17	13	25	19	1	6	18	4	2	7	4	1	7	2		2	1		2	3	4	17
()	2288+ 47	1368	496	424	47	640	24	13	520	120	3.6	208	160	2.4	200	64		56	56		48	72	120	28

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1	21.4	334	7.4	142	4.5	72			3	48	2.5	40	2	32	1	0.8		
1															2	2		
2	23.9	414	10.4	190	13.5	224										0.4		
2	1.5	24	1.5	24											2	2.8		
3	23.8	348	7.3	132	10.5	168	3	48							1	0.8		
3															2.5	3		
4	23.3	388	9.3	164	8.5	136	5.5	88							2	1.2		
4	1	24					1	24							1	1.2		
5	16.8	318	0.3	6	2.5	40	3	48	6	96	2	48	6	96		0.4		
5	1	24					1	24							3	5.4		
6	18.3	326	0.3	6			5.5	88	6	96	1.5	24	7	112		0.4		
6	1	24							1	24					0.5	0.6		
7	2	48					2	48									16	16
7																		
8																	15	12
	134	2288	36.5	664	39.5	640	21	368	16	264	6	112	15	240	15	19	31	28

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1.1					1-8
1.2					2 3 5-8
1.3					1~4 6
2.1					2 3 4 5
2.2			*		1 3-7 4 5
3.1					2 4 5-8
3.2					2-4 7-8
3.3					5 6
4.1					3 5 2-8
4.2					4 5 6 1 2

3

1	304802	*		2	24		
2	307101		/	2	24		/ /
3	304401		/	2	16		/ /
4	304424		/	5	8		/ /
5	304408		/	4	24		/ /
6	304410		/	3	8		/ /
7	304416		/	4	16		/ /
8	304418		/	4	16		/ /
9	304423		/	3	8		/ /
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22	304711		/	6	8		/ /
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27	304718		/	5	16		/ /
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31	304715		/	5	16		/ /
32	304723		/	5	48		/ /
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37	304807		/	5	60		
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2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
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11	311108	4		4	2		
12	311109	5		5	2		
13	311110	6		6	2		
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16	304825		/	3	3		
17	304820		/	5	3		
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21	304819		/	4	3		
22	304827		/	4	3		
23	304839		/	3	3		
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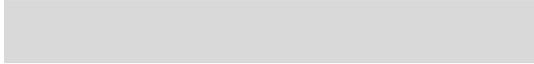
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	304417		3	48	48				2
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	304418		3	48	32	16			4
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			31				140		

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304690



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1. 3

Business Administration

Agricultural Economy and Management

1. 4

1.5

1.9

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3															1.5	1.8		
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4															1	1.2		
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7	4	96					4	96									16	16
7																		
8																	15	12
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					()		
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17	304827			4	3		
18	304835			4	3		
19	304824			5	3		
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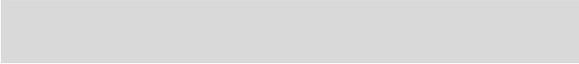
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	304513		4	64	48	16		4	
	304512		2.5	40	24	16		5	
	304509		3.5	56	40	16		5	
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	304816		12				60	8	
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	304631		2.5	40	16	24		5	
	304622		2	32	24	8		5	
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	304628		1	16	16			6	
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	304716		2.5	40	32	8		1	
	304712		2	32	24	8		4	
	304720		2.5	40	32	8		5	
	304724		2	32	24	8		6	
	304722		2.5	40	24	16		4	
	204725		2.5	40	16	24		5	
	304702		2	32	16	16		1	
	304717		2.5	40	32	8		3	
	304711		2	32	24	8		4	
	304719		2	32	24	8		5	
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CRM

SPSS

Simmarketing

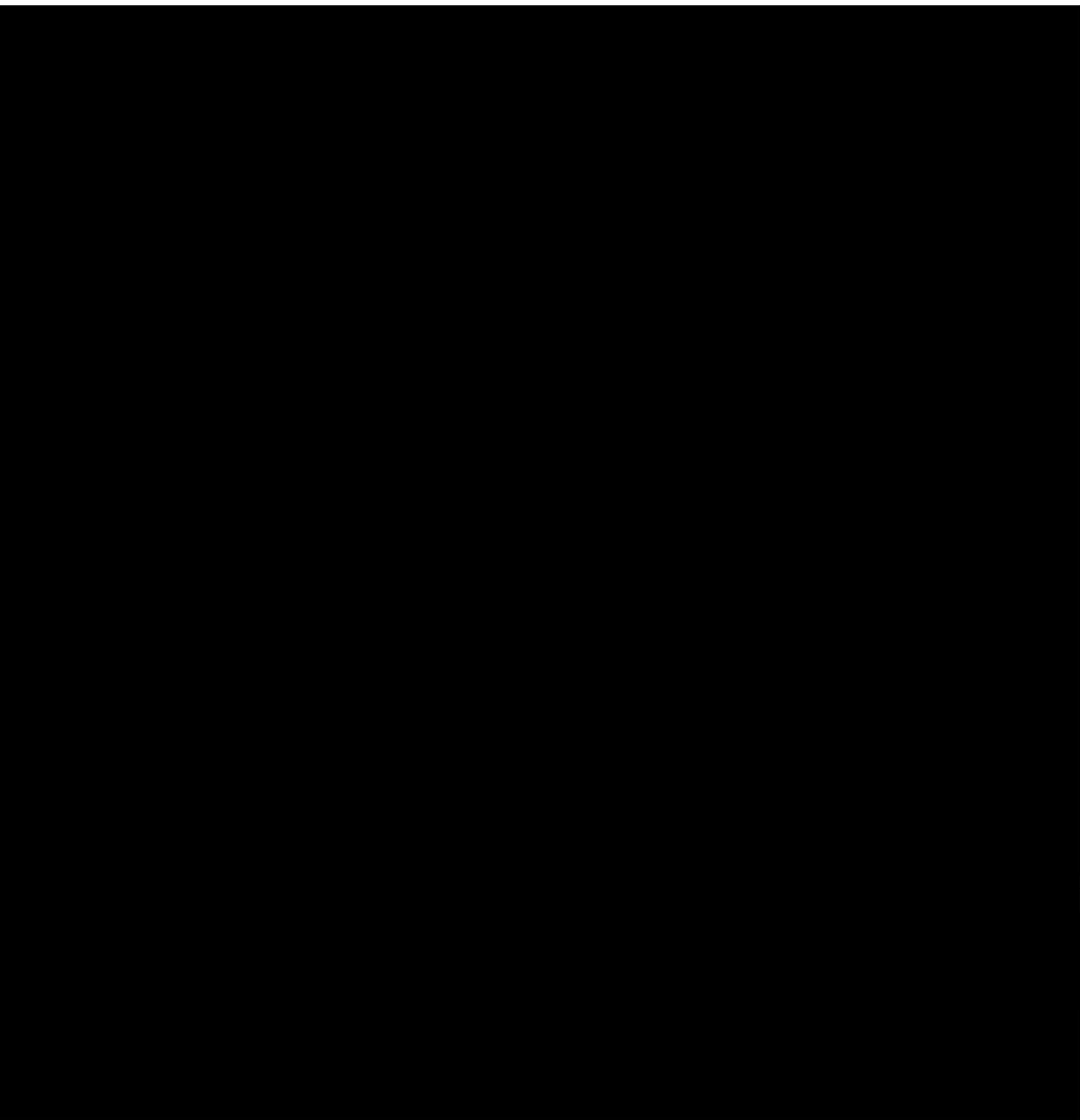
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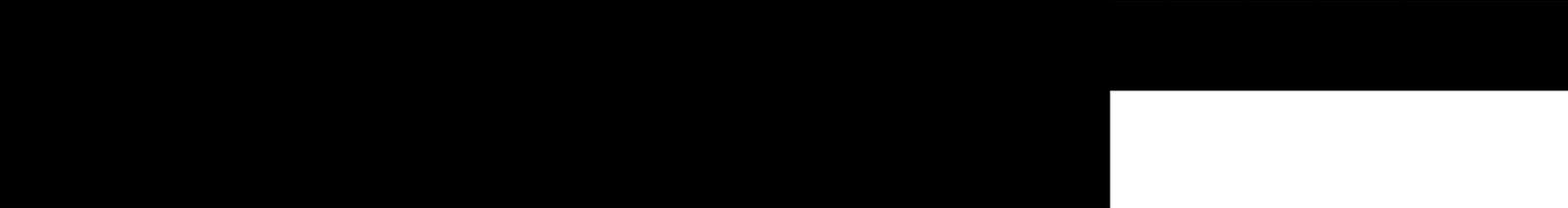
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2	1.5	24	1.5	24											4	7		
3	23.8	396	7.3	132	11	176			2.5	40			3	48	1	0.8		
3															2	2		
4	22.3	372	9.3	164	3	48	4.5	72	2	32			3	48	2	1.2		
4															0.5	0.5		
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5	2.5	60					2.5	60										
6	20.3	326	0.3	6			10	160	5	80	2	32	3	48		0.4		
6															2.5	2.5		
7	2	48					2	48									16	16
7																		
8																	15	12
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1.4					
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2.2			CRM		4-6
2.3					4 6
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3.2					5-7
3.3			CRM		5-8
4.1					5-8



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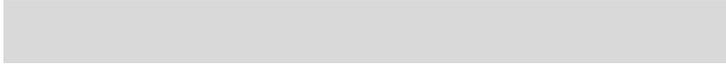
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	304702		2 5	40	16	24		6	
	304724		2	32	24	8		6	
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3	25.3	420	7.3	132	13	208	2	32					3	48	1	0.8		
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7																		
8																	15	12
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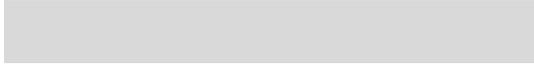
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4.3					8

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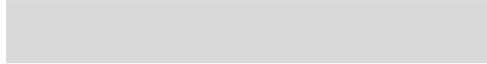
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	2376+ 48.6	1384	504	488	48.6	640	24	13	492	220	2.8	252	76	4.8	160	168	0	104	0	0	48	96	96	28
1.	1					2																		
2																								

1.9

1	22.9	390	10.4	190	12.5	200												0	0.4			
1	2	0																2	2			
2	27.9	430	7.4	142	18	288												2.5	2.4			
2	5.5	24	1.5	24														4	7			
3	24.3	364	9.3	164	5	80	2.5	40	2	32	3	48						2.5	2.2			
3	1	24							1	24												
4	26.3	404	7.3	132	8.5	144	8	128										2.5	2.4			
4	1.5	24							1	24								0.5	0.6			
5	24.3	366	0.3	6			7.5	120	4	72	2.5	40	8	128	2	2.6						

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1.1					1-8
1.2					1 3
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1.4					7 8
2.1					1-8
2.2					5-8
2.3					1-8
3.1					4-6
3.2					5-8
3.3					5-8
4.1					1-8
4.2					1-8
4.3					1-8
4.4					7 8

3.

1	307101		/	1	24		
2	301422		/	1	21		
3	305403		/	1	52		
4	305422		/	2	24		
5	301424		/	2	36		
6	301423		/	2	27		
7	305615		/	2	32		
8	305423		/	2	16		
9	301498		/	3	24		
10	305508		/	3	10		
11	305425		/	3	6		
12	305705		/	3	16		
13	305616		/	3	20		
14	305706		/	3	16		
15	305617		/	3	24		
16	301488	2	/	4	24		/
17	302402		/	4	6		
18	305510		/	4	10		
19	305428		/	4	8		
20	305509		/	4	8		
21	305511		/	4	10		
22	305618		/	5	24		
23	305619		/	4	24		
24	305512		/	5	20		
25	305534		/	5	8		
26	302538		/	5	8		
27	305622		/	5	24		
28	305621		/	5	24		
29	305623		/	5	24		
30	305624		/	6	20		
31	305625		/	6	24		
32	305630		/	6	12		
33	305708		/	5	16		
34	305631		/	6	12		
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1	312301			1	10 2		
2	314301			2	14 2		
3	314302			4	21 2		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
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15	305821			2	3 0.5		
16	305822			3	3 0.5		
17	305823			3 4	5 1		
18	305824			4	3 0.5		QdW
19	305825			4	3 0.5		
20	305826			4 5	5 1		
21	305827			5	3 0.5		
22	305869			5	3 0.5		
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25	305871			5	3 0.5		
26	305870			6	3 0.5		

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	311103		2	32	32			3	
	311104		1	30	30			4	
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	311109	5	0.3	18	6		2 12	5	
	311110	6	0.3	18	6		2 12	6	
			36.5	736	640	24	12 72		
	313401		4.5	72	72			1	
	301422		4	64	43	21		1	
	305403		4	64	12	52		1	
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	302402		2	32	26	6		4	
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	311304		1	(16)			2		
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	305622	*	1	24		24		5	
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	305705		1.5	24	8	16		3	
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	305707		1.5	24	24			6	
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	305710		1	16	16			6	
	305711		1.5	24	24			6	
	305712		1.5	24	24			6	
			5-8						
			17		6.5		*		



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3.3					5-8
4.1					1-8
4.2					1-8
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4.4					7 8

3.

1	307101		/	1	24		
2	301422		/	1	21		
3	305422		/	2	24		
4	301424		/	2	36		
5	301423		/	2	27		
6	305423		/	2	16		
7	301498		/	3	24		
8	305425		/	3	6		
9	305424		/	3	16		
10	305705		/	3	16		
11	305633		/	3	24		
12	301488	2	/	4	24		/
13	305514		/	4	16		
14	302402		/	4	6		
15	305426		/	4	12		
16	305427		/	4	10		
17	305713		/	4	24		
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19	305618		/	5	24		
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21	305535		/	5	8		
22	302536		/	5	8		
23	305635		/	5	6		
24	305715		/	5	16		
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27	305518		/	6	18		
28	305517		/	6	8		
29	305625			6	24		
30	305719		/	6	24		
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1	312301			1	10 2		
2	314301			2	14 2		
3	314302			4	21 2		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
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10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
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15	305821			2	3 0.5		
16	305822			3	3 0.5		
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18	305833			4,4	5 1		
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21	305872			5	3 0.5		
22	302846			5	3 0.5		
23	305880			5	2 0		
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27	305836			6	3 0.5		
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29	305834			6	3 0.5		
30	305838			5-8	3		
31	305839			7	80 16		
32	305840			8	60 12		
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	314101	2	0.4	28	16		2 12	2	
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	313103		1	30	30			3	

	301412	2	2.5	40	40			4	
	301488	2	1	24		24		4	
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	305514		4.5	72	56	16	5	4	
	305515		3	48	40	8	3	5	
	305535		1.5	24	16	8	2	5	
	302536		1.5	24	16	8	3	5	
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	314301		2	(112)			14	2	
	314302		2	(168)			21	4	
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	(404)			53		

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	305635		2	32	26	6	3	5	
	305636		1.5	24	24			5	
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	305638		1.5	24				6	
	305625		1	24				6	
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	305715		2.5	40	24	16	3	5	
	305716		2	32	32			6	
	305719		1	24		24		6	
			5-8						
			16			5	*		



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4					3-8

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13	311109	5			2		
14	311110	6			2		
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16	305854			4	3 0.5		
17	305855			4	3 0.5		
18	305856			5	5 1		
19	305857			6	10 2		
20	305858			5-8	(3)		
21	305859			7	80(16)		
22	305860			8	60(12)		
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	305452		2	32	24	8		5	
	305453		4	64	40	24	5	5	
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	305528		2	32	24	8	3	3	
	305529		2.5	40	32	8	3	4	
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	305531		3	48	24	24		5	
	305532		3	48	24	24		6	
	305533		3	48	40	8		6	
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	314301		2	112			14	2	
	314302		2	168			21	4	
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	404			53		

		305652		2	32	32			2
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		305654		2	32	8	24		3
		305655		6	96	96			4
		305656		2	32	8	24		5
		305657		2	32	32			5
		305658		3	48	24	24		5
		305659		2	32	32			5
		305660	*	2	32	8	24		5
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		305663		1.5	24	16	8		6
		305664		2	32	8	24		6
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		305725		2.5	40	16	24		2
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				17		5	*		



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16																5				

3.5	216																0.8		
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10	160				2	32	3	48	3	48							0.4		
																	7		
5.5	88				5	80	4	64	3	48							0.8		
7	112				8.5	136	2	32	3	48		1					2.6		
2.5	40	10	160	4.5	72				3	48							0.4		

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8	305436		/	2	40		
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15	305722		/	3	16		
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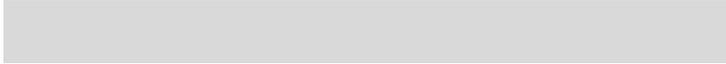
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17	305876			6	1		
18	305849			7	7(1)		
19	311105-10				96		
20	305850			5-8	15 (3)		
21	305851			7	80(16)		
22	305852			8	60(12)		
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	313101		1	30	30				1
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	311101		2	32	32				1
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	313102		1	30	30				2
	312103		4	64	64				3
	313103		1	30	30				3
	312104		4	64	64				4
	311103		2	32	32				3
	313104		1	30	30				4
	311104		4	64	64				4
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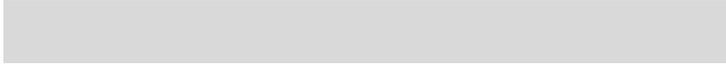
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19	306806			7	80(16)		
20	306807			7-8	60(15)		
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17	306812			5	5 1		
18	306810			6	10 2		
19	306805			6	10 2		
20	306806			7	80 16		
21	306807			7 8	60 15		
					245 49		



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1	19.4	334+ 0.4	19.4	334	7.4	142+ 0.4	12	192											0.4		
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2	5.5	24+7	1.5	24	1.5	24												4	7		
3	32.3	508+ 1.2	30.3	508	9.3	164+ 0.4	12.5	208	5.5	88					3	48		2	1.2		
3	2	2																2	2		
4	26.3	420+ 0.8	25.3	420	7.3	132+ 0.4	3	48	8.5	136	3.5	56	1.5	24	1.5	24		1	0.8		
4	2	2																2	2		
5	21.8	350+ 0.4	21.8	350	0.3	6+0.4	3	48	6	96	6	96	2	32	4.5	72			0.4		
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6	16.8	270+ 0.4	16.8	270	0.3	6+0.4			5	80	5.5	88	1.5	24	4.5	72			0.4		
6	2	2																2	2		
7	16	16																			16 16
7 +8	15	12																			15 12
	189.5	2336+ 49	140.5	2336	36.5	664+ 2.4	43	696	25	400	16	256	5	80	15	240		18	21	31	28

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12	306527		/	4	4		
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15	306543		/	4	4		
16				4	12		
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15	306814			4	5 1		
16	306815			4	5 1		
17	306816			5	10 2		
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20	306807			8	60(15)		
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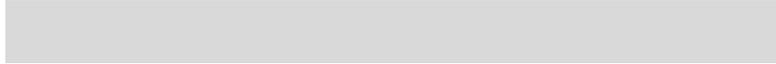
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1.1					1~4
1.2					3~4
1.3					5
2					
2.1					1~8
2.2					1~8
2.3					1~8
2.4					1~8
2.5				4	1~8
3					
3.1					1~8

3.2					1~8
3.3					1~8
4					
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4.2					1~8
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1	307102		/	1	32		
2	307401		/	1	32		
3	307501		/	1	36		
4	313415		/	2	24		
5	307502		/	2	24		
6	307403		/	2	32		
7	307404		/	3	16		
8	307504		/	3	32		
9	307505		/	4	8		
10	307506		/	4	16		
11	307405		/	4	32		
12	307503		/	4	36		
13	307507		/	5	16		
14	307701		/	5	16		
15	307508		/	5	24		

16	307602	Véb UI	/	5	32	UI Véb	
17	307705		/	5	24		
18	307603	Véb	/	5	32	Véb	
19	307607		/	6	16		
20	307605	Véb	/	6	32	Véb	
21	307704		/	6	32	APP	
22	307707		/	6	32		
23	307604	Véb	/	6	48	Véb	
		--		--	624		

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					()		
1	312301			1	10(2)		
2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14	307801			3	5(1)		
15	307802			3	5(1)		
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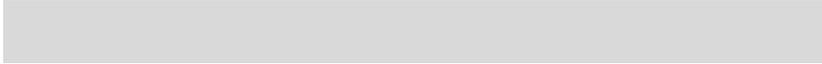
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20	307897			5-8	(3)		
21	307899			7	80(16)		
22	307898			8	60(12)		
					235(47)		

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	311102		2	32	32				1
	313101		1	30	30				1
	312102		4	64	64				2
	311101		2	32	32				2
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	312103		4	64	64				3
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	312104		4	64	64				4
	311103		2	32	32				3
	313104		1	30	30				4
	311104		4	64	64				4
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	311106	2	0.4	28	16		2	12	2
	311107	3	0.3	18	6		2	12	3
	311108	4	0.3	18	6		2	12	4
	311109	5	0.3	18	6		2	12	5
	311110	6	0.3	18	6		2	12	6
			36.5	736	632	32	12	72	
	313402	II	4.5	72	72	0			1
	307401		5	80	48	32			1
	313415		1	24	0	24			2
	313414		3	48	48	0			2
	313403	III	3.5	56	56	0			2
	307402		3.5	56	56	0			2
	307403		4	64	32	32			2
	313407		3	48	48	0			3

	307404		4.5	72	56	16		3	
	313408		3	48	48	0		4	
	307405		6	96	64	32		4	
			41	664	528	136			
	307501		1.5	36	0	36		1	
	307502		1	24	0	24		2	
	307503		1.5	36	0	36		3	
	307504		3	48	16	32		3	
	307505		1.5	24	16	8		4	
	307506		4	64	48	16		4	
	307507		4	64	48	16		5	
	307508		4.5	72	48	24		5	
			21	368	176	192			
	312301		2	60			10	1	
	314301		2	(112)			14	2	
	314302		2	(168)			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	(404)			53		

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	307607		3	48	32	16		5	
	307605	Vøb	3	48	16	32		6	
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	307606	*	2	32	32	0		6	
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	307701		2	32	16	16		5	
	307705		3	48	24	24		5	
	307707		3	48	16	32		6	
	307704		4	64	32	32		6	
			12	192	88	104			
			17		6	*			



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Spark

Li nux

Python

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Hadoop

Python

Web

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																				1	2			
	184.5	73	26	36.5	49	35	1.5	10	27.5	11.5	1	10.5	11.5	7	8	9	0	3	3	0	3	6	6	31
	100	39.6	14.1	19.7	26.5	19.0	0.8	5.4	14.9	6.2	0.5	5.7	6.2	3.8	4.3	4.9	0.0	1.6	1.6	0.0	8.2		16.8	
	2272 +49	1248	416	608	49	640	24	13	440	184	1	168	200	7	128	152	0	48	48	0	240		28	
1.	1				2				16()+12()+3()															
2																								
+																								

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1	18.9	326	10.4	190	8.5	136											0.4		
1																2	2		
2	26.9	462	7.4	142	15.5	248			1	24			3	48	1	0.8			
2	1.5	24	1.5	24											4	7			
3	25.8	444	9.3	164	8	128	5.5	104					3	48	2	1.2			
3															2	2		5-8	
4	28.3	468	7.3	132	7	112	5	80	6	96			3	48	1	0.8			
4															2	2		3	
5	19.3	310	0.3	6			7	112	6	96	3	48	3	48		0.4		8	
5															2	2			
6	14.8	238	0.3	6			4.5	72	4	64	3	48	3	48	2	2.4			
6																			
7																		16	16
7																			
8																		15	12
	135.5	2272	36.5	664	39	624	22	368	17	280	6	96	15	240	18	21	31	28	
	3	2		2				5-8		3			8						

2

1.1					2 3 4 6
1.2			Python	Li nux	1~4
1.3					1~8
2.1					2~6
2.2					3~8
2.3					4~8
3.1			Web	Web	1 3 4 5
3.2			ETL		3 4
3.3				Spark	5 6
4.1					1~8
4.2					1~8
4.3					1~8

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1	307101		/	1	24		
2	307493	Vøb	/	1	32	Vøb	Vøb
3	307499		/	2	16		

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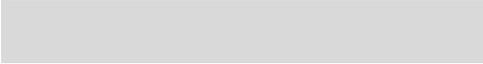
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2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14	307895			3	5(1)		
15	307894			3	5(1)		
16	307890	Python		4	10(2)	Python	
17	307893	Web	5k	5	5(1)	Web	
18	307889	Hadoop		5	5(1)	Hadoop	
19	307888			6	10(2)		
20	307899	307899	M	7	80(16)		

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	307101		3	48	24	24			1
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	313102		1	30	30				2
	314101		1.5	24	24				2
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	312103		4	64	64				3
	313103		1	30	30				3
	311103		2	32	32				4
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	312104		4	64	64				4
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	311110	6	0.3	18	6		2	12	6
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	307493	Vøb	4	64	32	32			1
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	307495		5	80	32	48			2
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	313407		3	48	48				3
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	307497		4	64	32	32			4
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	307589	Spark	2.5	40	16	24		6	
			22	368	168	200			
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	307894		1	30			5	3	
	307890	Python	2	60			10	4	
	307893	Væb	1	30			5	5	
	307889	Hadoop	1	30			5	5	
	307888		2	60			10	6	
	307899		16	480			80	7	
	307898		12	480			60	8	
	307897		3				15	5-8	
			39				180		
	312301		2	60			10	1	
	314301		2	112			14	2	
	314302		2	168			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	404			53		

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	307688	ETL	3	48	24	24		5	
	307696		3	48	16	32		5	
	307695		3	48	24	24		6	
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	307699	*	2	32	16	16		6	
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	307701		2	32	16	16		5	
	307704		4	64	32	32		6	
	307707		3	48	16	32		6	
	12	6	12	192	88	104			



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																		1	2																						
	186	98.25	33	13.75	41	35	1.5	10	43.5	1.5	19.75	0.75	15	7		3	3		3	6	6	31																			
	100	53	18	7	22	18.8	0.8	5.4								1.6	1.6					8.1	16.7																		
	2416 ⁺ 41	1652	528	236	41	640	24	13	696	24	316	12	240	128		48	48					240	28																		
1.																						1		2																	
(1.5+1.5+1.5×3=7.5)																						7.5		(1.5+1.5+1.5×4=9),		6															
2																																									

1. 9

1	21.4	350	7.4	142	13	208										1	0.8	7-8 3 8				
1	2															2	2					
2	24.9	422	10.4	190	11.5	184						3	48				0.4					
2	3.5	24	1.5	24												4	7					
3	27.3	436	7.3	132	13	208	3	48					3	48		1	0.8					
3	4	64							4	64												
4	29.8	460	9.3	164	4.5	72	8	128			3	48	3	48		2	1.2					
4	4	64							4	64												
5	20.8	350	0.3	6	3	48	9.5	152	2	48	3	48	3	48			0.4					
5	2	32							2	32												
6	15.3	214	0.3	6					10	160			3	48			0.4					
6																						
7	16																	16	16			
7																						
8	15												2-6					15	12			
	186	2416	36.5	664	45	720	20.5	328	22	368	6	96	15	240		10	13	31	28			
																	7-8					
3																			8			

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1.1					1-8 7 8 1
1.2					1--8 8 1
1.3					1--8 6 1-4
1.4					1-8 3 4 5 7 8
2 1					1-8
2 2					1-8 5-8
2 3					1-8 5-8
2 4					1-8 5-8
2 5					1-8 6 1

3.

1	308801		/	6	48		
2	308802		/	6	48		
3	308409		/	2	8		
4	308410		/	3	8		
5	308411		/	2	8		
6	308508		/	4	4		
7	308509		/	5	8		
8	308606		/	6	8		
9	308618		/	3	12		
10	308619		/	3	12		
11	308620		/	3	12		
12	308621		/	5	12		
13	308622		/	4	12		
14	308623		/	5	12		
15	308624		/	4	12		
16	308625		/	4	12		
17	308626		/	5	12		
18	308701		/	5	16		
19	308702		/	5	16		
20	308703		/	5	16		
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22	308705		/	5	16		
23	308706		/	5	16		
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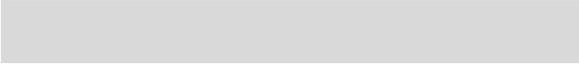
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6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
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10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14				5-8	(3)		
15				7	80(16)		
16				8	60(12)		
					205	(41)	

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	312104		4	64	64			4	
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	313104		1	30	30			4	
	311104		4	64	64			4	
	311105	1	0.4	28	16		2 12	1	
	311106	2	0.4	28	16		2 12	2	
	311107	3	0.3	18	6		2 12	3	
	311108	4	0.3	18	6		2 12	4	
	311109	5	0.3	18	6		2 12	5	
	311110	6	0.3	18	6		2 12	6	
			36.5	736	640	24	12 72		
	308401		3	48	48			1	
	308402		3	48	48			1	
	308403		3	48	48			1	
	308404		3	48	48			2	
	308405		3	48	48			3	
	308406		3	48	48			3	
	308407		2	32	32			3	
	308408		3	48	48			1	
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	308411		3	48	40	8		2	
	308412		2.5	40	40			2	

	308413		2	32	32			3	
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	308502		3	48	48			3	
	308503		2	32	32			4	
	308504		2.5	40	40			5	
	308505		2	32	32			5	
	308506		2	32	32			4	
	308507		2	32	32			4	
	308508		2	32	28	4		4	
	308509		2	32	24	8		5	
			20.5	328	316	12			
	312301		2	(60)			10	1	
	314301		2	(112)			14	2	
	314302		2	(168)			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
	311305		1	(16)			2		
			10	404			53		

		22		10				2	
		10	*						
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	308602			2	32	32			6
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	308609			2	32	32			6
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	308611			2	32	32			6
	308612			2	32	32			6
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	308627			1.5	24	12	12		3
	308620			1.5	24	12	12		3
	308621			1.5	24	12	12		5
	308622			1.5	24	12	12		4
	308623			1.5	24	12	12		5
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6	308701			2	32	16	16		4
	308702			2	32	16	16		4
	308703			2	32	16	16		4
	308704			2	32	16	16		5
	308705			2	32	16	16		5
	308706			2	32	16	16		5
				6	192	128	64		



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																						1	2	
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	100	36	14	24	26	18	1	5	13	10	2	4	7	3	5	4		2	2		2	3	3	16
	2368	1184	440	744	49	640	24	13	402	302	3	142	234	5	152	136		48	48		48	96	96	28
1.	1										2													
2																								

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1	17.4	326	7.4	142	7	112	3	72												1	0.8				
1																				2	2				
2	24.4	414	10.4	190	6.5	104	2.5	40	2	32				3	48	2	0.4								
2	1.5	24	1.5	24																4	7				
3	24.8	412	7.3	132	9	144	3.5	56	2	32				3	48	1	0.8								
3																				2	2				
4	29.8	492	9.3	164	6	96	3.5	56	4	64	4	64	3	48	2	1.2									
4																				2	2				
5	19.3	310	0.3	6	6.5	104	3.5	56	4	64	2	32	3	48		0.4									
5																				2	2				
6	24.3	390	0.3	6	9	144	6	96	6	96				3	48		0.4								
6																				2	2				
7																							16	16	
7																									
8																							15	12	
	190.5	2368	36.5	664	47	704	27	376	18	288	6	96	15	240	18	21	31	28							
	5-8				3				8																

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1.1					
1.2					4
1.3					3 4
2.1					3 6
2.2					6
2.3					3 4
3.1					2
3.2					4
3.3					3
4.1					
4.2					3 4 5
4.3					2
4.4					7 8

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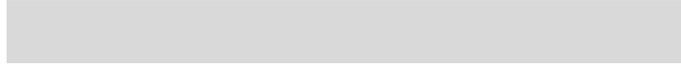
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	311108	4	0.3	18	6		2	4	
	311109	5	0.3	18	6		2	5	
	311110	6	0.3	18	6		2	6	
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	308454		3	48	24	24		3	
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			44	704	402	302			
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	308554		3.5	56	28	28	5	5	
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	312301		2	60			10	1	
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	314302		2	168			21		
	311301		1	(16)			2		
	311302		1	(16)			2		
	311304		1	(16)			2		
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			10	404			53		

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	308667			2	32	16	16		6	
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	2	3	2	1	4	3	32	512	272	240
	2	5	4	2	6	5	3			
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	6	3	6							
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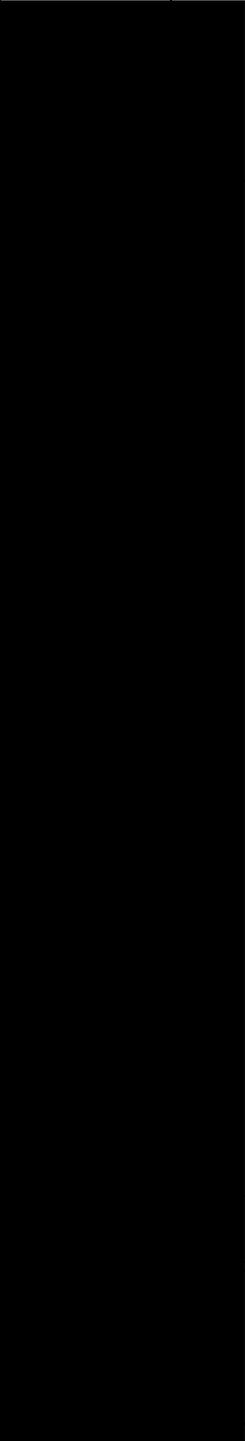
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	100	45%	17%	11%	27%	19%	1%	6%	18%	3%	2%	7%	4%	2%	6%	3%	1%	2%	1%		2%	3%	4%	17%
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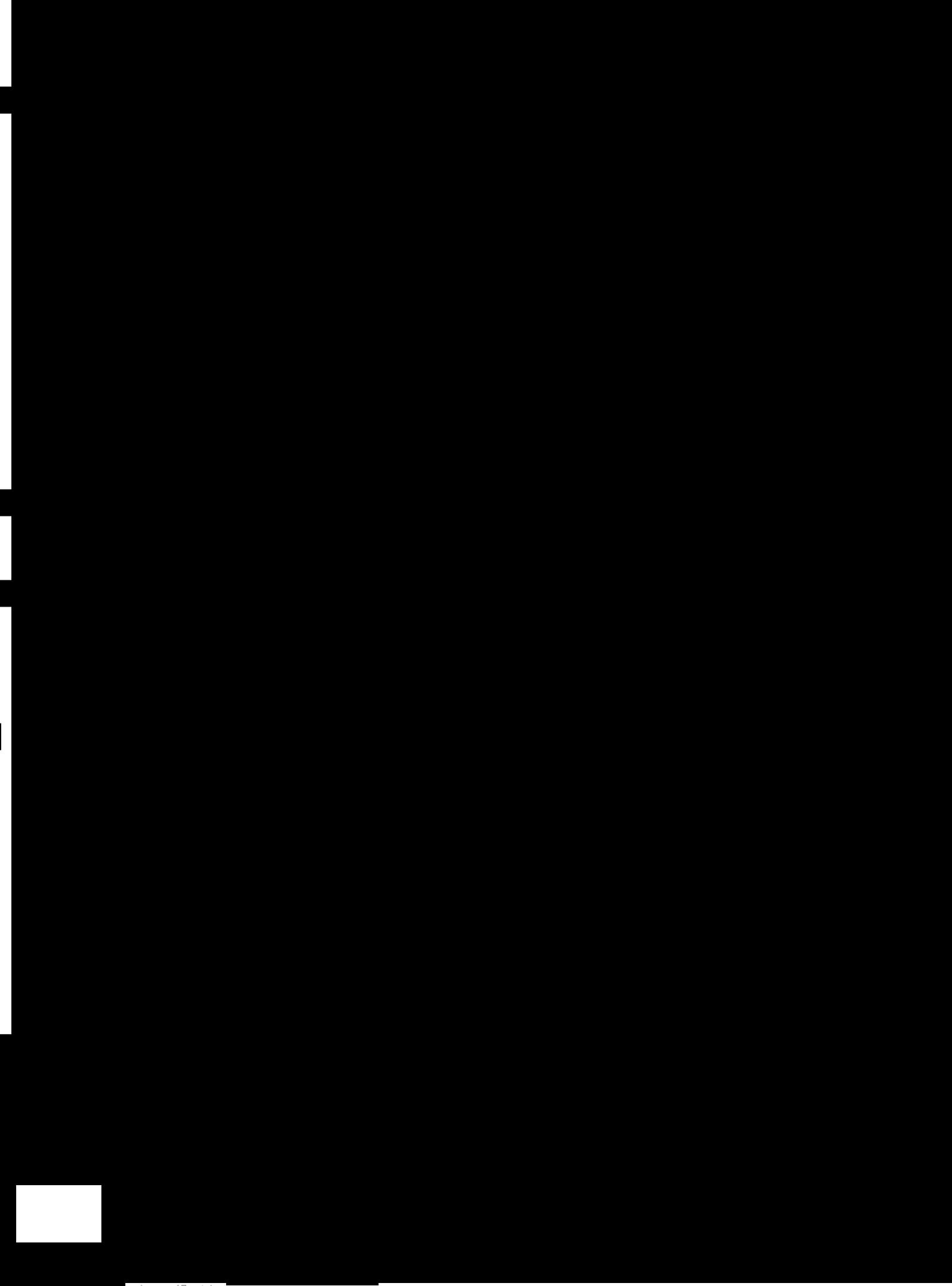
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2	1.5	24	1.5	24																4	7		
3	27.3	452	7.3	132	10.5	168	6.5	104						3	48					1	0.4		
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4																				2	2		
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5																				2	2		
6	16.8	270	0.3	6	2.5	40				11	176			3	48								
6																				2	2		
7																						16	16
7																							
8																						15	12
	130.5	2168	36.5	664	38	608	20	320	16	256	5	80	15	240	18	18.6	31	28					

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35	309607		/	6	8		
36	309608		/	6	8		
37	309609		/	6	8		
38	309616		/	6	8		
39	309617		/	6	24		
					392		

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					()		
1	312301			1	10(2)		
2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
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14	309802			3	5(1)		
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17	309817			4	5(1)		
18	309807			5	5(1)		
19	309808			5	5(1)		
20	309810			6	5(1)		
21	309818			6	5(1)		
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					245	(49)	

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	309503		2	32	24	8		5	
	309504		2	32	16	16		5	
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	309508		2	32	8	24		4	
	309509		2	32	24	8		5	
	309510		2 5	40	16	24		3	
	309817		1	30			5	4	
	309818		1	30			5	6	
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	309807		1	30			5	5	
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			20	320	208	112			
	312301		2	60			10	1	
	314301		2	112			14	2	
	314302		2	168			21		
	311301		1	(16)			2		



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	1795	805	31.875	18.125	49	35	15	10	315	6	3	14	55	2	12375	3625	3	45	15	0	1	2		
	100%	44.85%	17.76%	10.10%	27.30%	19.50%	0.84%	5.57%	17.55%	3.34%	1.67%	7.80%	3.06%	1.11%	6.89%	2.02%	1.67%	2.51%	0.84%	0.00%	1.67%	2.51%	4.18%	17.27%
	2168+																							
	49	1368	510	290	49	640	24	13	504	96	3	224	88	2	198	58	3	72	24	0	240			28

1. 9

1	16.4	286	7.4	142	9	144	0	0	0	0	0	0			1	0.8	5-8 8 3						
1															2	2							
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2															4	5							
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3															2	2							
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4															2	2							
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6															2	2							
7																	16	16					
7																							
8																	15	12					
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1.1					1-8
1.2			CAD *		1-3 6
1.3					1-5
1.4					3-8
2.1					4-8
2.2					4-8
2.3					3-8
2.4					2-8
3.1					2-7
3.2					2-8
3.3					3-6
4.1					2-8
4.2					5-8
4.3					4-8
4.4			*		4-8

3.

1	309401		/	1	8		
2	309430		/	1	8		
3	307101		/	2	24		
4	309404		/	3	16		
5	309411		/	4	16		
6	309431		/	4	8		
7	309413		/	5	16		
8	309408		/	5	24		
9	309511	CAD	/	4	16		
10	309512	photoshop	/	5	16		
11	309513		/	5	8		
12	309515		/	6	16		
13	309516		/	6	8		
14	309517	*	/	6	8		
15	309518		/	6	16		
16	309619		/	2	8		
17	309620		/	3	10		
18	309621		/	3	8		
19	309622		/	4	8		
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21	309605		/	6	8		
22	309609		/	6	8		
23	309701		/	4	8		
24	309706		/	5	8		
25	309707		/	6	8		
26	309632		/	6	8		
27	309638	*	/	4	8		
28	309640		/	3	8		
29	309642		/	4	8		
					322+32		

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1	312301			1	10(2)		
2	314301			2	14(2)		
3	314302				21(2)		
4	311301				2(1)		
5	311302				2(1)		
6	311304				2(1)		
7	311305				2(1)		
8	311105	1			2		
9	311106	2			2		
10	311107	3			2		
11	311108	4			2		
12	311109	5			2		
13	311110	6			2		
14	309815				(3)		
15	309813			7	80(16)		
16	309814			8	60(12)		
					205	41	
1	309801			3	5	1	
2	309816			3	5	1	
3	309812			4	5	1	
4	309809			4	5	1	
5	309804			5	5	1	
6	309819			5	5	1	
7	309811			6	5	1	
8	309805			6	5	1	
					40	8	

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15									
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	309819		1				5	5	
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	309512	photoshop	3	48	32	16		5	
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	309518		2.5	40	24	16		6	
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	309811		1				5	6	
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	314301		2	(112)			14	2	
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			10	(404)			53		

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	309632		2	32	24	8		6	
	309634		2	32	24	8		6	
	309629		2	32	16	16		5	
	309631		2	32	16	16		5	
	309633		2	32	24	8		6	
	309626		2	32	20	12		5	
	309627		2	32	28	4		5	
	309628		2	32	8	24		5	
	309623		2.5	40	32	8		5	
	309624		2	32	24	8		4	
	309638		2.5	40	32	8		4	
	309625	office	3	48	24	24		5	
			49.5	760	518	242	10		
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	309706		2	32	24	8		5	
	309710		2	32	24	8		4	
	309711		2	32	24	8		4	
	309708		2	32	22	10		5	
			10	160	118	42			
			15			5		*	



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	171	149	5	(11.1)	(1.5)	44	(2.6)	(1)	30	(1)	75	(7)	(0.5)	5	(0.5)	17	(33)
	100	87.1	2.9	(6.5)	(0.9)	25.7	(1.5)	(0.6)	17.6	(0.6)	44.1	(4.1)	(0.3)	2.9	(0.3)	10	(19.4)
	1932 (115)	1604	32	296	10	690	42	2	372	28	542	208	8	32	18	105	1000
62.6														36.6%			

1	23	378	24	378													
2	21	354	22	354													
3-4	40	450			15	200	25	250						350			
4()	5																5
5-6	40	450			15	200	25	250						350			
6()	2																2
7-8	40	300					25	250	5	50				300			10
	171	1932	46	732	35	450	75	750						1000			17

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1 a b c d f
2 h i k l
3 e j p q r s
4 g m n o

		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s			
1		x	x				x		x	x	x	x											
		x	x	x	x	x	x		x	x		x	x	x	x	x			x	x			
			x		x	x	x	x		x		x											
		x		x		x		x		x		x	x	x		x			x	x			
		x	x	x	x	x	x				x	x	x							x	x		
			x	x	x	x			x	x	x	x	x		x		x				x		
		x	x	x	x	x										x				x	x		
		x			x						x				x		x			x	x		
2		x	x	x		x				x	x	x	x		x	x	x	x	x	x			
		x		x	x	x		x	x	x						x				x	x		
			x		x	x	x	x	x	x	x	x											
		x			x							x	x		x						x	x	
		x	x	x	x	x	x			x	x	x	x	x	x						x	x	
		x	x	x	x	x															x	x	
		x	x	x	x	x	x				x	x			x		x				x	x	
		x	x	x	x	x					x				x		x				x	x	
		x	x	x	x		x				x	x	x		x	x				x	x		
		x	x		x			x		x			x	x							x		
		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				x	
		x	x	x	x	x				x		x	x		x	x					x	x	
		x	x	x	x	x				x		x	x	x	x	x					x	x	x
		x	x	x	x	x	x	x			x	x	x	x							x	x	x
		x	x	x	x	x	x		x	x	x	x					x				x	x	
			x	x	x	x	x			x	x	x	x			x	x	x	x	x	x	x	

3.

					*	*		
1	307101	Introduction to Computer	/		24(1.5)			
2	313417	Statistics	/		18(1.13)			
3	310415	Personal, Professional and Academic Development	/			50(1.67)		
4	310416	Marketing Principles	/		4(0.13)	50(1.67)		
5	310550	Logistics & Distribution	/		10(0.33)	50(1.67)		
6	310551	The Organisation in its Environment	/		14(0.47)	50(1.67)		
7	310552	Introduction to Economics	/		4(0.13)	50(1.67)		
8	310553	Creativity & Enterprise	/		14(0.47)	50(1.67)		
9	310554	Business Data Analysis	/		14(0.47)	50(1.67)		
10	310406	Research Methods	/		14(0.47)	50(1.67)		
11	310417	Human Resource Management and Leadership	/		10(0.33)	50(1.67)		
12	310555	Retail Environment & Operations	/		14(0.47)	50(1.67)		
13	310556	Financial Decision Making	/		14(0.47)	50(1.67)		
14	310557	Economic Policies	/		10(0.33)	50(1.67)		
15	310508	International Marketing	/		10(0.33)	50(1.67)		
16	310510	E-Business	/		14(0.47)	50(1.67)		
17	310409	Supply Chain Management	/		18(0.6)	50(1.67)		
18	310514	Starting & Growing a Business	/		18(0.6)	50(1.67)		
19	310558	Consumer Behaviour	/		18(0.6)	50(1.67)		

					.	.		
20	310513	Strategic Management	/		18(0.6)	50(1.67)		
21	310515	New Product Development	/		18(0.54)	50(1.5)		
22	310604	Marketing Communications	/		18(0.6)	50(1.67)		
23	310605	Sales & Customer Service	/		18(0.6)	50(1.67)		
.			×		-			

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1	311101	Ethic & Law				2(1)		
2	310551	The Organisation in its Environment				1(0)		
3	310553	Creativity & Enterprise				1(0)		
4	310555	Retail Environment & Operations				1(0)		
5	310515	New Product Development				5(0.5)		
6	314101	Military Training			4()	14(2)		
7	314302	Professional Skill Training			4()	20(3)		
8	310801	Social Practice			6()	21(2)		
9	310802	Dissertation			7-8	50(10)		

5

313404	Advanced Mathematics		4		60	60					1	
311101	Ethic & Law		3		32	32		2			1	
313101	Physical Education		1		30	30					1	
307101	Introduction to Computer		3		48	24	24				2	
313417	Statistics					30	18				2	
313102	Physical Education		1		30	30					2	
310101	English Speaking & Listening		2		38	38					1	
310102	Extensive Reading		2		38	38					1	
310103	IELTS Studies		3		48	48					2	
310104	Comprehensive English		11		180	180					1	
310105	Comprehensive English		11		180	180					2	
			44		732	690	42	2				
310415	Personal, Professional and Academic Development		5	15	50	50			50	50	3-4	
310416	Marketing Principles		5	15	50	46	4		50	50	3-4	
310405	1 English 1		5	15	100	100				50	3-4	
310406	Research Methods		5	15	50	36	14		50	50	5-6	
310417	Human Resource Management and Leadership		5	15	50	40	10		50	50	5-6	
310408	2 English 2		5	15	100	100				50	5-6	
			30	90	400	372	28		200	300		

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310550 Logistics & Distribution

5 15 50 40 10 50 50

	310604	Marketing Communications		5	15	50	32	18		50	50	7-8	
	310605	Sales & Customer Service		5	15	50	32	18		50	50	7-8	
				10	30	100	64	36		100	100		
5													



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	171	149	5	(10.1)	(2.5)	44	(2.6)	(1)	30	(1)	75	(6)	(1.5)	5	(0.5)	17	(33)
	100	87.1	2.9	(5.9)	(1.5)	25.7	(1.5)	(0.6)	17.6	(0.6)	44.1	(3.5)	(0.9)	2.9	(0.3)	10	(19.4)
	1932 (115)	1620	32	280	20	690	42	2	372	28	558	192	18	32	18	105	1000
														62.6		36.6%	

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		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s					
1		x	x				x		x	x	x	x													
		x	x	x	x	x	x		x	x		x	x	x	x	x			x	x					
			x		x	x	x	x	X	x		x													
		x		x		x		x		x		x	x	x		x			x	x	x				
		x	x	x	x	x				x	x	x	x	x		x					x				
		x	x	x		x				x		x										x			
		x	x		x	x				x		x	x	x	x					x		x			
		x	x	x		x		x		x	x	x		x		x						x			
2		x	x	x	x	x	x	x		x	x	x	x			x	x	x	x	x					
		x		x	x	x			x	x						x					x				
			x		x	x	x	x	x	x	x														
		x			x							x	x		x						x	x			
		x	x		x	x	x	x	x	x	x		x	x							x	x	x		
		x	x	x	x	x			x		x	x	x		x							x	x		
		x	x	x	x	x			x		x	x	x	x	x							x	x	x	
		x	x	x	x	x						x	x										x		
									x	x	x	x	x										x		
		x		x	x	x				x		x	x		x								x	x	
		x	x	x	x	x		x			x		x										x	x	x
		x	x	x	x	x	x	x	x	x	x	x	x	x	X	x	x							x	
		x	x	x	x	x				x		x	x	x	x	x							x	x	x
		x		x	x	x	x			x		x	x	x	x	x	x								
		x	x	x	x	x						x	x	x									x	x	x
			x	x	x	x	x			x	x	x	x										x	x	x

3.

1	307101	Introduction to Computer	/		24(1.5)			
2	313417	Statistics	/		18(1.13)			
3	310415	Personal, Professional and Academic Development	/			50(1.67)		
4	310416	Marketing Principles	/		4(0.13)	50(1.67)		
5	310550	Logistics & Distribution	/		10(0.33)	50(1.67)		
6	310559	Intro to Food Service & Retail	/		6(0.2)	50(1.67)		
7	310560	Issues in Global Food Production	/		6(0.2)	50(1.67)		
8	310561	Nature of Food	/		20(0.67)	50(1.67)		
9	310562	Intro to Food Science & Biotechnology	/		10(0.33)	50(1.67)		
10	310406	Research Methods	/		14(0.47)	50(1.67)		
11	310417	Human Resource Management and Leadership	/		10(0.33)	50(1.67)		
12	310555	Retail Environment & Operations	/		14(0.47)	50(1.67)		
13	310521	Food Marketing	/		10(0.33)	50(1.67)		
14	310523	Food Processing Preservation & Packaging	/		14(0.47)	50(1.67)		
15	310524	Agricultural Products & Food Quality	/		6(0.2)	50(1.67)		
16	310525	Hygiene and Food Safety	/		6(0.2)	50(1.67)		

4

1	311101	Ethic & Law			2(1)		
2	310561	Nature of Food			1(0)		
3	310562	Intro to Food Science & Biotechnology			5(0.5)		
4	310555	Retail Environment & Operations			1(0)		
5	310521	Food Marketing			1(0)		
6	310523	Food Processing Preservation & Packaging			5(0.5)		
7	310526	European Food Innovation And Trade			5(0.5)		
8	314101	Military Training		4()	14(2)		
9	314302	Professional Skill Training		4()	20(3)		
10	310801	Social Practice		6()	21(2)		
11	310802	Dissertation		7-8	50(10)		

5

313404	Advanced Mathematics		4		60	60						1	
311101	Ethic & Law		3		32	32		2				1	
313101	Physical Education		1		30	30						1	
307101	Introduction to Computer		3		48	24	24					2	
313417	Statistics				48	30	18					2	
313102	Physical Education		1		30	30						2	
310101	English Speaking & Listening		2		38	38						1	
310102	Extensive Reading		2		38	38						1	
310103	IELTS Studies		3		48	48						2	
310104	Comprehensive English		11		180	180						1	
310105	Comprehensive English		11		180	180						2	
			44		732	690	42	2					
310415	Personal, Professional and Academic Development		5	15	50	50			50	50		3-4	
310416	Marketing Principles		5	15	50	46	4		50	50		3-4	
310405	1 English 1		5	15	100	100				50		3-4	
310406	Research Methods		5	15	50	36	14		50	50		5-6	
310417	Human Resource Management and Leadership		5	15	50	40	10		50	50		5-6	
310408	2 English 2		5	15	100	100				50		5-6	
			30	90	400	372	28		200	300			

310550	Logistics and Distribution		5	15	50	40	10		50	50	3-4	
310559	Intro to Food Service & Retail		5	15	50	44	6		50	50	3-4	
310560	Issues in Global Food Production		5	15	50	44	6		50	50	3-4	
310561	Nature of Food		5	15	50	30	20	1	50	50	3-4	
310562	Intro to Food Science & Biotechnology		5	15	50	40	10	5	50	50	3-4	
310555	Retail Environment & Operations		5	15	50	36	14	1	50	50	5-6	
310521	Food Marketing		5	15	50	40	10	1	50	50	5-6	
310523	Food Processing Preservation & Packaging		5	15	50	36	14	5	50	50	5-6	
310524	Agricultural Products & Food Quality		5	15	50	44	6		50	50	5-6	
310525	Hygiene and Food Safety		5	15	50	44	6		50	50	5-6	
310409	Supply Chain Management		5	15	50	32	18		50	50	7-8	
310514	Starting and Developing a Business *		5	15	50	32	18		50	50	7-8	
310526	European Food Innovation And Trade		5	15	50	32	18	5	50	50	7-8	
310528	Food Quality Management		5	15	50	32	18		50	50	7-8	
310530	Development of Food Products and Sensory Evaluation		5	15	50	32	18		50	50	7-8	
			75	225	750	558	192	18	750	750		
314101	Military Training		2					14			4()	
310801	Professional Skill Training		3					20			4()	
314302	Social Practice		2					21			6()	
310802	Dissertation		10	30				50			7-8	
			17	30				105				
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	310606	Food Policy and Ethics		5	15	50	32	18		50	50	7-8	
	310607	Food Security and Sustainability		5	15	50	32	18		50	50	7-8	
				10	30	100	64	36		100	100		
5													

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(a)

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	182	157.5	12.5	(18)	(4.5)	49	5.8	(1)	17.5	(2.5)	(0.5)	91	(11)	(3)	12.5	12	(29)	
	100	86.5	6.9	(10)	(2.5)	26.9			9.6			50			6.9	6.6	(16)	
	2284 (129)	1637	134	513	26	739	93	2	204	78	3	694	336	21	140	105	1100	

64.3

35.3%

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1.1					1-8
1.2					4--8
1.3		/	/		1--6
2.1					4--8
2.2					2 3
2.3		/			1--8
2.4					2 5-6
3.1					5--6
3.2					5--6
4.1					5--8
4.2					3-8
4.3					5-8

3.

1	301422	General Chemistry	/		21(1.31)			
2	307101	Computing	/		24(1.50)			
3	313417	Statistics	/		18(1.13)			
4	301423	Organic Chemistry	/		30(1.88)			
5	310410	Applied Remote Sensing	/		16(0.32)	50(1.01)		
6	310412	Botany	/		24(0.51)	50(1.07)		
7	310532	Ecology	/		6(0.20)	50(1.67)		
8	310533	Forensic and Analytical Chemistry	/		20(0.80)	50(1.67)		
9	310542	Environmental Investigation and Monitoring	/		24(0.80)	50(1.67)		
10	310411	Introduction to Biochemistry	/		22(0.54)	50(1.22)		
11	310413	Environmental Chemistry	/		16(0.36)	50(1.12)		
12	310604	Environmental Management Practice	/			50		
13	310537	Intro to Environmental Science	/		24(0.80)	50(1.67)		
14	310534	Applied Microbiology	/		10(0.33)	50(1.67)		
15	310541	Environmental Management and Sustainability 1	/			50(1.67)		
16	310603	Managing People	/			50		
17	310540	Biological and Chemical Hazards	/		24(0.80)	50(1.67)		
18	310602	Agrometeorology	/		6			
19	310535	Applied Agricultural Resource and Management	/		8(0.12)	50(0.76)		
20	310536	Practice in Resource & Environment	/		48(2.00)			

21	310538	Plant Physiology	/		24(0.80)	50(1.67)		
22	310543	Physical Environment	/		24(0.72)	50(1.50)		
23	310544	Soil and Land Processes	/		24(0.72)	50(1.50)		
24	310545	Marine and Freshwater Processes	/		24(0.72)	50(1.50)		
25	310550	2 Environmental Management and Sustainability 2	/			50(1.50)		
26	310547	Environmental Impact Assessment	/		24(0.72)	50(1.50)		
27	310548	Studies in Ecology	/		24(0.72)	50(1.50)		
28	310549	Analytical Chemistry	/		24(0.80)	50(1.67)		

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1	311101	Ethic and Law				2(1)		
2	310412	Botany				3(0.5)		
3	310541	1 Environmental Management and Sustainability 1				1(0)		
4	310548	Studies in Ecology				3(0.5)		
5	310543	Physical Environment				3(0.5)		
6	310545	Marine and Freshwater Processes				3(0.5)		
7	310544	Soil and Land Processes				3(0.5)		
8	310550	2 Environmental Management and Sustainability 2				3(0.5)		
9	310547	Environmental Impact Assessment				3(0.5)		
10	314101	Military Training			2()	14(2)		
11	310801	Professional Skill Training			4()	20(3)		
12	310302	Social/aboard Practice			4()	21(2)		
13	310802	Dissertation			7-8	50(5)		

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5.1

311101	Ethic and Law		2	0	32	32		2				1	
311101/ 311102	Sports		2	0	60	60						1-2	
307101	Introduction to Computer		3	7.5	48	24	24					2	
313417	Statistics		3	7.5	48	30	18					2	
313404	Advanced Mathematics		4	15	64	64						1	
301422	General Chemistry		4	15	64	43	21					1	
301423	Organic Chemistry		5	15	80	50	30					2	
310104	1 Comprehensive English 1		11	30	180	180						1	
310105	2 Comprehensive English 2		11	30	180	180						2	
310101	English Speaking & Listening		2	7.5	38	38						1	
310102	English Extensive Reading		2	7.5	38	38						1	
			49	135	832	739	93	2					

5. 2

310410	Applied Remote Sensing		3	7.5	48	32	16		50	50	4		
310412	Botany		4	15	64	40	24	3	50	50	3		
310411	Introduction to Biochemistry		4	15	64	42	22		50	50	3		
310413	Environmental Chemistry		3.5	15	56	40	16		50	50	4		
310414	IELTS Training		3	7.5	50	50			50	50	4		
			17.5	60	282	204	78	3	200	250			

5. 3

310532	Ecology		5	15	50	44	6		50	50	4		
310533	Forensic and Analytical Chemistry		5	15	50	26	24		50	50	3		
310542	Environmental Investigation and Monitoring		5	15	50	26	24		50	50	6		
310531	1 English for Academic Purpose 1		6	15	100	100			50	50	3-4		
310537	Intro to Environmental Science		5	15	50	26	24		50	50	3		
310534	Applied Microbiology		5	15	50	40	10		50	50	5		
310541	1 Environmental Management and Sustainability 1		5	15	50	50		1	50	50	5		
310540	Biological and Chemical Hazards		5	15	50	26	24		50	50	5		

310539	2 English for Academic Purpose 2		6	15	100	100				50	5-6	
310535	Applied Agricultural Resource and Management		2	7.5	32	24	8		50	50	6	
310536	Practice in Resource & Environment		2	7.5	48		48				5	
310538	Plant Physiology		5	15	50	26	24		50	50	4	
310543	Physical Environment		5	15	50	26	24	3	50	50	7-8	
310544	Soil and Land Processes		5	15	50	26	24	3	50	50	7-8	
310545	Marine and Freshwater Processes		5	15	50	26	24	3	50	50	7-8	
310550	2 Environmental Management and Sustainability 2		5	15	50	50		3	50	50	7-8	
310547	Environmental Impact Assessment		5	15	50	26	24	3	50	50	7-8	
310548	Studies in Ecology		5	15	50	26	24	5	50	50	7-8	
310549	Analytical Chemistry		5	15	50	26	24		50	50	7-8	
			91	270	1030	694	336	21	800	900		

5. 4

310604	Environmental Management Practice		5	15	50	50			50	50	4	
310603	Managing People		5	15	50	50			50	50	3	
310602	Agrometeorolgy		2.5	7.5	40	34	6				3	
			12.5	37.5	140	134	6		100	100		

5. 5

314101	Military Training		2					14			2()	
310801	Professional Skill Training		3					20			4()	
310302	Social/aboard Practifce		2					21			6()	
310802	Dissertation		5	15				50			7-8	
			12	15				105				