

# GABARITO

## Lista 1

### Exercício 1

n	media	ep	total	total.ep	total.var	t	EA	LI	LS
12	248.78	9.45	223903.42	8501.06	72268085.14	2.20	18710.72	205192.70	242614.13
estrato	area	n	media	var	se	Nh	Ah	total	total.var
B	150.00	4	231.37	248.90	7.89	2500.00	1560000.00	34705.82	1400078.12
D	400.00	8	251.79	1845.99	15.19	6667.00	5549444.12	100716.81	36919873.00
total	var	se	n.e	t	EA	LI	LS	Razao.Var	
135422.63	38319951.11	6190.31	8.00	2.78	17187.06	118235.57	152609.69	0.53	

### Exercício 2

estrato	area.ha	n	media	s2	var.m	Nh	total	var.total	ah	Vh	Wh
1	3500	3	92	41	4	7000	642929	180844767	16326333	7	0.2258
2	2500	3	110	49	4	5000	552117	100589224	8328333	6	0.1613
3	4500	3	99	466	12	9000	887877	1009975092	26991000	22	0.2903
4	1000	2	66	17	3	2000	132154	11667679	1998000	6	0.0645
5	4000	4	99	937	15	8000	792609	979419436	15992000	31	0.2581
vol.tot	vol.tot.var	N	vol.med	vol.med.var	ne	vol.med.ep	t	EA	LI	LS	
3007687	2282496198	31000	97.02	2.38	4.00	1.54	3.18	4.90	92.12	101.93	

t	n*
3.18	163
1.97	63
2.00	64
2.00	64

### Exercício 3

tipo	sx	n	sx2	sy	sy2	sxy	R	s2.R	N	Tx	ah
Praca_Canteiro	778.29	5	133992.61	23	245.00	4793.57	0.03	78.70	145.00	26750.00	4060.00
Quadra	5795.49	10	3738422.52	382	17044.00	246631.94	0.07	773.16	275.00	157908.00	7287.50
total	total.var	total.ep	t	EA	LI	LS					
790.52	319519.64	565.26	2.78	1569.42	-778.90	2359.93					
10408.24	5634421.47	2373.69	2.26	5369.67	5038.57	15777.91					

total	total.var	total.ep	ne	t	EA	LI	LS
11198.76	5953941.11	2440.07	9.00	2.31	5626.81	5571.94	16825.57

# GABARITO

## Lista 2

### Exercício 1

n	media	ep	total	total.ep	total.var	t	EA	LI	LS
12	262.17	13.97	235956.22	12568.61	157969940.42	2.20	27663.32	208292.90	263619.54
estrato	area	n	media	var	se	Nh	Ah	total	total.var
A	300.00	3	243.46	1026.64	18.50	5000.00	8328333.33	73036.98	30799252.89
B	150.00	3	242.17	1923.19	25.32	2500.00	2080833.33	36326.10	14423945.10
D	400.00	6	260.69	1469.01	15.65	6667.00	7401481.17	104277.13	39173527.73
total	var	se	n.e	t	EA	LI	LS	Razao.Var	
213640.21	84396725.72	9186.77	8.00	2.78	25506.56	188133.65	239146.77	0.53	

### Exercício 2

estrato	area.ha	n	media	s2	var.m	Nh	total	var.total	ah	Vh	Wh
1	3500	3	106	91	6	7000	742179	269648705	16326333	9	0.2258
2	2500	3	103	1320	21	5000	512928	524364723	8328333	35	0.1613
3	4500	3	109	90	5	9000	978563	443067768	26991000	9	0.2903
4	1000	2	96	269	12	2000	191222	46383274	1998000	17	0.0645
5	4000	4	112	1824	21	8000	897152	1366596871	15992000	38	0.2581
vol.tot	vol.tot.var	N	vol.med	vol.med.var	ne	vol.med.ep	t	EA	LI	LS	
3322045	2650061341	31000	107.16	2.76	5.00	1.66	2.78	4.61	102.55	111.77	

t	n*
2.78	194
1.97	98
1.98	99
1.98	99

### Exercício 3

tipo	sx	n	sx2	sy	sy2	sxy	R	s2.R	N	Tx	ah
Praca_Canteiro	1089.55	5	357485.23	47	689.00	14000.75	0.04	146.31	145.00	26750.00	4060.00
Quadra	5171.04	10	2804894.98	311	11037.00	167684.33	0.06	1012.73	275.00	157908.00	7287.50
total	total.var	total.ep	t	EA	LI	LS					
1153.92	594011.66	770.72	2.78	2139.87	-985.95	3293.78					
9497.00	7380293.50	2716.67	2.26	6145.53	3351.47	15642.54					
total	total.var	total.ep	ne	t	EA	LI	LS				
10650.92	7974305.16	2823.88	10.00	2.26	6388.06	4262.86	17038.98				

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## Lista 3

### Exercício 1

n	media	ep	total	total.ep	total.var	t	EA	LI	LS
12	255.13	10.67	229614.93	9600.44	92168465.61	2.20	21130.43	208484.51	250745.36
estrato	area	n	media	var	se	Nh	Ah	total	total.var
B	150.00	5	247.14	198.65	6.30	2500.00	1247500.00	37071.52	893928.72
D	400.00	7	262.28	429.25	7.83	6667.00	6343174.29	104912.13	9811458.64
total	var	se	n.e	t	EA	LI	LS	Razao.Var	
141983.64	10705387.37	3271.91	7.00	2.78	9084.28	132899.37	151067.92	0.12	

### Exercício 2

estrato	area.ha	n	media	s2	var.m	Nh	total	var.total	ah	Vh	Wh
1	3500	3	87	241	9	7000	607631	438848244	16326333	18	0.2258
2	2500	3	107	236	9	5000	534432	221931121	8328333	14	0.1613
3	4500	3	108	1266	21	9000	974857	1663704500	26991000	33	0.2903
4	1000	2	132	4638	48	2000	264339	192617792	1998000	52	0.0645
5	4000	4	93	1218	17	8000	740467	1116722632	15992000	38	0.2581
vol.tot	vol.tot.var	N	vol.med	vol.med.var	ne	vol.med.ep	t	EA	LI	LS	
3121725	3633824289	31000	100.70	3.78	3.00	1.94	4.30	8.37	92.33	109.07	

t	n*
4.30	692
1.96	146
1.98	148
1.98	148

### Exercício 3

tipo	sx	n	sx2	sy	sy2	sxy	R	s2.R	N	Tx	ah
Praca_Canteiro	1322.26	5	510947.28	47	727.00	19003.85	0.04	21.57	145.00	26750.00	4060.00
Quadra	5319.81	10	2985130.81	400	17360.00	220705.58	0.08	1046.84	275.00	157908.00	7287.50
total	total.var	total.ep	t	EA	LI	LS					
950.83	87577.37	295.93	2.78	821.65	129.19	1772.48					
11873.21	7628879.92	2762.04	2.26	6248.17	5625.03	18121.38					

total	total.var	total.ep	ne	t	EA	LI	LS
12824.04	7716457.29	2777.85	9.00	2.31	6405.74	6418.30	19229.78

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## Lista 4

### Exercício 1

n	media	ep	total	total.ep	total.var	t	EA	LI	LS
12	251.09	9.90	225979.91	8910.43	79395739.97	2.20	19611.72	206368.19	245591.63
estrato	area	n	media	var	se	Nh	Ah	total	total.var
B	150.00	3	273.73	22.19	2.72	2500.00	2080833.33	41059.82	166416.16
D	400.00	9	254.36	967.45	10.37	6667.00	4932098.44	101744.98	17199173.77
total	var	se	n.e	t	EA	LI	LS	Razao.Var	
142804.81	17365589.93	4167.20	8.00	2.78	11570.01	131234.79	154374.82	0.22	

### Exercício 2

estrato	area.ha	n	media	s2	var.m	Nh	total	var.total	ah	Vh	Wh
1	3500	3	67	242	9	7000	472046	440246530	16326333	23	0.2258
2	2500	3	119	448	12	5000	596793	305670603	8328333	18	0.1613
3	4500	3	76	1066	19	9000	687530	1526644450	26991000	43	0.2903
4	1000	2	151	2869	38	2000	301164	151500355	1998000	36	0.0645
5	4000	4	103	400	10	8000	826022	640020692	15992000	19	0.2581
vol.tot	vol.tot.var	N	vol.med	vol.med.var	ne	vol.med.ep	t	EA	LI	LS	
2883555	3064082631	31000	93.02	3.19	3.00	1.79	4.30	7.68	85.34	100.70	

t	n*
4.30	637
1.96	135
1.98	137
1.98	136

### Exercício 3

tipo	sx	n	sx2	sy	sy2	sxy	R	s2.R	N	Tx	ah
Praca_Canteiro	1043.56	5	342562.96	34	390.00	11314.60	0.03	16.36	145.00	26750.00	4060.00
Quadra	6704.51	10	5325121.42	378	14618.00	266292.83	0.06	1517.80	275.00	157908.00	7287.50
total	total.var	total.ep	t	EA	LI	LS					
871.54	66405.63	257.69	2.78	715.47	156.07	1587.01					
8902.85	11061001.04	3325.81	2.26	7523.50	1379.35	16426.35					
total	total.var	total.ep	ne	t	EA	LI	LS				
9774.38	11127406.67	3335.78	9.00	2.31	7692.32	2082.07	17466.70				

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## Lista 5

### Exercício 1

n	media	ep	total	total.ep	total.var	t	EA	LI	LS
12	256.44	10.26	230797.40	9230.03	85193394.46	2.20	20315.15	210482.25	251112.55
estrato	area	n	media	var	se	Nh	Ah	total	total.var
B	150.00	5	250.88	592.19	10.88	2500.00	1247500.00	37632.38	2664834.73
D	400.00	7	265.03	891.69	11.29	6667.00	6343174.29	106012.21	20381522.26
total	var	se	n.e	t	EA	LI	LS	Razao.Var	
143644.59	23046356.98	4800.66	7.00	2.78	13328.77	130315.82	156973.37	0.27	

### Exercício 2

estrato	area.ha	n	media	s2	var.m	Nh	total	var.total	ah	Vh	Wh
1	3500	3	72	534	13	7000	503258	653919461	16326333	32	0.2258
2	2500	3	94	584	14	5000	468688	348890891	8328333	26	0.1613
3	4500	3	93	286	10	9000	835729	790670175	26991000	18	0.2903
4	1000	2	144	2673	37	2000	287530	146234517	1998000	36	0.0645
5	4000	4	97	1009	16	8000	778451	1016246147	15992000	33	0.2581
vol.tot	vol.tot.var	N	vol.med	vol.med.var	ne	vol.med.ep	t	EA	LI	LS	
2873656	2955961191	31000	92.70	3.08	7.00	1.75	2.45	4.29	88.41	96.99	

t	n*
2.45	189
1.97	123
1.98	124
1.98	124

### Exercício 3

tipo	sx	n	sx2	sy	sy2	sxy	R	s2.R	N	Tx	ah
Praca_Canteiro	887.72	5	276649.19	11	61.00	2341.48	0.01	45.45	145.00	26750.00	4060.00
Quadra	6602.47	10	5579408.20	429	24847.00	342119.71	0.06	3943.44	275.00	157908.00	7287.50
total	total.var	total.ep	t	EA	LI	LS					
331.47	184526.74	429.57	2.78	1192.67	-861.20	1524.13					
10260.18	28737830.90	5360.77	2.26	12126.90	-1866.72	22387.08					
total	total.var	total.ep	ne	t	EA	LI	LS				
10591.65	28922357.64	5377.95	9.00	2.31	12401.58	-1809.93	22993.22				

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## Lista 6

### Exercício 1

n	media	ep	total	total.ep	total.var	t	EA	LI	LS
12	261.24	10.68	235114.25	9614.95	92447255.95	2.20	21162.36	213951.89	256276.61
estrato	area	n	media	var	se	Nh	Ah	total	total.var
A	300.00	4	262.07	1923.30	21.93	5000.00	6245000.00	78620.44	43274272.00
B	150.00	4	242.52	909.92	15.08	2500.00	1560000.00	36378.48	5118327.13
D	400.00	4	262.96	3038.19	27.56	6667.00	11105555.25	105185.43	121527621.62
total	var	se	n.e	t	EA	LI	LS	Razao.Var	
220184.34	169920220.75	13035.35	5.00	2.78	36191.92	183992.42	256376.26	1.84	

### Exercício 2

estrato	area.ha	n	media	s2	var.m	Nh	total	var.total	ah	Vh	Wh
1	3500	3	80	1034	19	7000	559952	909542066	16326333	40	0.2258
2	2500	3	95	1508	22	5000	473809	560466314	8328333	41	0.1613
3	4500	3	141	458	12	9000	1270437	1000910858	26991000	15	0.2903
4	1000	2	148	3301	41	2000	295664	162500753	1998000	39	0.0645
5	4000	4	113	1021	16	8000	906953	1022625749	15992000	28	0.2581
vol.tot	vol.tot.var	N	vol.med	vol.med.var	ne	vol.med.ep	t	EA	LI	LS	
3506816	3656045741	31000	113.12	3.80	8.00	1.95	2.36	4.61	108.51	117.74	

t	n*
2.36	223
1.97	155
1.98	156
1.98	156

### Exercício 3

tipo	sx	n	sx2	sy	sy2	sxy	R	s2.R	N	Tx	ah
Praca_Canteiro	235.80	5	17535.24	6	18.00	241.26	0.03	17.08	145.00	26750.00	4060.00
Quadra	6150.27	10	4265209.27	306	12304.00	217973.95	0.05	1172.21	275.00	157908.00	7287.50
total	total.var	total.ep	t	EA	LI	LS					
680.66	69326.76	263.30	2.78	731.04	-50.38	1411.70					
7856.54	8542453.63	2922.75	2.26	6611.71	1244.83	14468.26					
total	total.var	total.ep	ne	t	EA	LI	LS				
8537.20	8611780.39	2934.58	9.00	2.31	6767.16	1770.04	15304.36				

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## Lista 7

### Exercício 1

n	media	ep	total	total.ep	total.var	t	EA	LI	LS
12	245.32	9.22	220784.72	8297.18	68843222.38	2.20	18261.97	202522.75	239046.69
estrato	area	n	media	var	se	Nh	Ah	total	total.var
A	300.00	3	287.26	698.83	15.26	5000.00	8328333.33	86177.20	20964910.26
B	150.00	5	249.83	526.94	10.27	2500.00	1247500.00	37474.63	2371207.51
D	400.00	4	258.87	1035.23	16.09	6667.00	11105555.25	103548.73	41409037.42
total	var	se	n.e	t	EA	LI	LS	Razao.Var	
227200.57	64745155.19	8046.44	5.00	2.78	22340.49	204860.08	249541.06	0.94	

### Exercício 2

estrato	area.ha	n	media	s2	var.m	Nh	total	var.total	ah	Vh	Wh
1	3500	3	132	2872	31	7000	925852	1516006064	16326333	41	0.2258
2	2500	3	97	768	16	5000	482639	399994376	8328333	29	0.1613
3	4500	3	111	1604	23	9000	996560	1872884418	26991000	36	0.2903
4	1000	2	82	9	2	2000	163820	8418993	1998000	4	0.0645
5	4000	4	100	364	10	8000	800153	610882168	15992000	19	0.2581
vol.tot	vol.tot.var	N	vol.med	vol.med.var	ne	vol.med.ep	t	EA	LI	LS	
3369024	4408186018	31000	108.68	4.59	4.00	2.14	3.18	6.82	101.86	115.49	

t	n*
3.18	391
1.97	150
1.98	152
1.98	152

### Exercício 3

tipo	sx	n	sx2	sy	sy2	sxy	R	s2.R	N	Tx	ah
Praca_Canteiro	798.67	5	223263.84	23	325.00	6925.15	0.03	111.30	145.00	26750.00	4060.00
Quadra	6019.73	10	4048164.09	314	11024.00	205502.17	0.05	599.73	275.00	157908.00	7287.50
total	total.var	total.ep	t	EA	LI	LS					
770.34	451867.52	672.21	2.78	1866.36	-1096.01	2636.70					
8236.77	4370567.64	2090.59	2.26	4729.24	3507.52	12966.01					
total	total.var	total.ep	ne	t	EA	LI	LS				
9007.11	4822435.17	2196.00	10.00	2.26	4967.71	4039.40	13974.82				