

BA Assignment 1

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R Markdown

##1.ISLR package has already been installed just called the library.

```
library(ISLR)
```

##2.Called the ISLR library and then printed the summary of the Carseats dataset along with number of observations(rows)

```
library(ISLR)
print(Carseats)
```

##	Sales	CompPrice	Income	Advertising	Population	Price	ShelveLoc	Age	Education
## 1	9.50	138	73	11	276	120	Bad	42	17
## 2	11.22	111	48	16	260	83	Good	65	10
## 3	10.06	113	35	10	269	80	Medium	59	12
## 4	7.40	117	100	4	466	97	Medium	55	14
## 5	4.15	141	64	3	340	128	Bad	38	13
## 6	10.81	124	113	13	501	72	Bad	78	16
## 7	6.63	115	105	0	45	108	Medium	71	15
## 8	11.85	136	81	15	425	120	Good	67	10
## 9	6.54	132	110	0	108	124	Medium	76	10
## 10	4.69	132	113	0	131	124	Medium	76	17
## 11	9.01	121	78	9	150	100	Bad	26	10
## 12	11.96	117	94	4	503	94	Good	50	13
## 13	3.98	122	35	2	393	136	Medium	62	18
## 14	10.96	115	28	11	29	86	Good	53	18
## 15	11.17	107	117	11	148	118	Good	52	18
## 16	8.71	149	95	5	400	144	Medium	76	18
## 17	7.58	118	32	0	284	110	Good	63	13
## 18	12.29	147	74	13	251	131	Good	52	10
## 19	13.91	110	110	0	408	68	Good	46	17
## 20	8.73	129	76	16	58	121	Medium	69	12
## 21	6.41	125	90	2	367	131	Medium	35	18
## 22	12.13	134	29	12	239	109	Good	62	18
## 23	5.08	128	46	6	497	138	Medium	42	13
## 24	5.87	121	31	0	292	109	Medium	79	10
## 25	10.14	145	119	16	294	113	Bad	42	12
## 26	14.90	139	32	0	176	82	Good	54	11
## 27	8.33	107	115	11	496	131	Good	50	11
## 28	5.27	98	118	0	19	107	Medium	64	17

## 29	2.99	103	74	0	359	97	Bad	55	11
## 30	7.81	104	99	15	226	102	Bad	58	17
## 31	13.55	125	94	0	447	89	Good	30	12
## 32	8.25	136	58	16	241	131	Medium	44	18
## 33	6.20	107	32	12	236	137	Good	64	10
## 34	8.77	114	38	13	317	128	Good	50	16
## 35	2.67	115	54	0	406	128	Medium	42	17
## 36	11.07	131	84	11	29	96	Medium	44	17
## 37	8.89	122	76	0	270	100	Good	60	18
## 38	4.95	121	41	5	412	110	Medium	54	10
## 39	6.59	109	73	0	454	102	Medium	65	15
## 40	3.24	130	60	0	144	138	Bad	38	10
## 41	2.07	119	98	0	18	126	Bad	73	17
## 42	7.96	157	53	0	403	124	Bad	58	16
## 43	10.43	77	69	0	25	24	Medium	50	18
## 44	4.12	123	42	11	16	134	Medium	59	13
## 45	4.16	85	79	6	325	95	Medium	69	13
## 46	4.56	141	63	0	168	135	Bad	44	12
## 47	12.44	127	90	14	16	70	Medium	48	15
## 48	4.38	126	98	0	173	108	Bad	55	16
## 49	3.91	116	52	0	349	98	Bad	69	18
## 50	10.61	157	93	0	51	149	Good	32	17
## 51	1.42	99	32	18	341	108	Bad	80	16
## 52	4.42	121	90	0	150	108	Bad	75	16
## 53	7.91	153	40	3	112	129	Bad	39	18
## 54	6.92	109	64	13	39	119	Medium	61	17
## 55	4.90	134	103	13	25	144	Medium	76	17
## 56	6.85	143	81	5	60	154	Medium	61	18
## 57	11.91	133	82	0	54	84	Medium	50	17
## 58	0.91	93	91	0	22	117	Bad	75	11
## 59	5.42	103	93	15	188	103	Bad	74	16
## 60	5.21	118	71	4	148	114	Medium	80	13
## 61	8.32	122	102	19	469	123	Bad	29	13
## 62	7.32	105	32	0	358	107	Medium	26	13
## 63	1.82	139	45	0	146	133	Bad	77	17
## 64	8.47	119	88	10	170	101	Medium	61	13
## 65	7.80	100	67	12	184	104	Medium	32	16
## 66	4.90	122	26	0	197	128	Medium	55	13
## 67	8.85	127	92	0	508	91	Medium	56	18
## 68	9.01	126	61	14	152	115	Medium	47	16
## 69	13.39	149	69	20	366	134	Good	60	13
## 70	7.99	127	59	0	339	99	Medium	65	12
## 71	9.46	89	81	15	237	99	Good	74	12
## 72	6.50	148	51	16	148	150	Medium	58	17
## 73	5.52	115	45	0	432	116	Medium	25	15
## 74	12.61	118	90	10	54	104	Good	31	11
## 75	6.20	150	68	5	125	136	Medium	64	13
## 76	8.55	88	111	23	480	92	Bad	36	16
## 77	10.64	102	87	10	346	70	Medium	64	15
## 78	7.70	118	71	12	44	89	Medium	67	18
## 79	4.43	134	48	1	139	145	Medium	65	12
## 80	9.14	134	67	0	286	90	Bad	41	13
## 81	8.01	113	100	16	353	79	Bad	68	11
## 82	7.52	116	72	0	237	128	Good	70	13

## 83	11.62	151	83	4	325	139	Good	28	17
## 84	4.42	109	36	7	468	94	Bad	56	11
## 85	2.23	111	25	0	52	121	Bad	43	18
## 86	8.47	125	103	0	304	112	Medium	49	13
## 87	8.70	150	84	9	432	134	Medium	64	15
## 88	11.70	131	67	7	272	126	Good	54	16
## 89	6.56	117	42	7	144	111	Medium	62	10
## 90	7.95	128	66	3	493	119	Medium	45	16
## 91	5.33	115	22	0	491	103	Medium	64	11
## 92	4.81	97	46	11	267	107	Medium	80	15
## 93	4.53	114	113	0	97	125	Medium	29	12
## 94	8.86	145	30	0	67	104	Medium	55	17
## 95	8.39	115	97	5	134	84	Bad	55	11
## 96	5.58	134	25	10	237	148	Medium	59	13
## 97	9.48	147	42	10	407	132	Good	73	16
## 98	7.45	161	82	5	287	129	Bad	33	16
## 99	12.49	122	77	24	382	127	Good	36	16
## 100	4.88	121	47	3	220	107	Bad	56	16
## 101	4.11	113	69	11	94	106	Medium	76	12
## 102	6.20	128	93	0	89	118	Medium	34	18
## 103	5.30	113	22	0	57	97	Medium	65	16
## 104	5.07	123	91	0	334	96	Bad	78	17
## 105	4.62	121	96	0	472	138	Medium	51	12
## 106	5.55	104	100	8	398	97	Medium	61	11
## 107	0.16	102	33	0	217	139	Medium	70	18
## 108	8.55	134	107	0	104	108	Medium	60	12
## 109	3.47	107	79	2	488	103	Bad	65	16
## 110	8.98	115	65	0	217	90	Medium	60	17
## 111	9.00	128	62	7	125	116	Medium	43	14
## 112	6.62	132	118	12	272	151	Medium	43	14
## 113	6.67	116	99	5	298	125	Good	62	12
## 114	6.01	131	29	11	335	127	Bad	33	12
## 115	9.31	122	87	9	17	106	Medium	65	13
## 116	8.54	139	35	0	95	129	Medium	42	13
## 117	5.08	135	75	0	202	128	Medium	80	10
## 118	8.80	145	53	0	507	119	Medium	41	12
## 119	7.57	112	88	2	243	99	Medium	62	11
## 120	7.37	130	94	8	137	128	Medium	64	12
## 121	6.87	128	105	11	249	131	Medium	63	13
## 122	11.67	125	89	10	380	87	Bad	28	10
## 123	6.88	119	100	5	45	108	Medium	75	10
## 124	8.19	127	103	0	125	155	Good	29	15
## 125	8.87	131	113	0	181	120	Good	63	14
## 126	9.34	89	78	0	181	49	Medium	43	15
## 127	11.27	153	68	2	60	133	Good	59	16
## 128	6.52	125	48	3	192	116	Medium	51	14
## 129	4.96	133	100	3	350	126	Bad	55	13
## 130	4.47	143	120	7	279	147	Bad	40	10
## 131	8.41	94	84	13	497	77	Medium	51	12
## 132	6.50	108	69	3	208	94	Medium	77	16
## 133	9.54	125	87	9	232	136	Good	72	10
## 134	7.62	132	98	2	265	97	Bad	62	12
## 135	3.67	132	31	0	327	131	Medium	76	16
## 136	6.44	96	94	14	384	120	Medium	36	18

## 137	5.17	131	75	0	10	120	Bad	31	18
## 138	6.52	128	42	0	436	118	Medium	80	11
## 139	10.27	125	103	12	371	109	Medium	44	10
## 140	12.30	146	62	10	310	94	Medium	30	13
## 141	6.03	133	60	10	277	129	Medium	45	18
## 142	6.53	140	42	0	331	131	Bad	28	15
## 143	7.44	124	84	0	300	104	Medium	77	15
## 144	0.53	122	88	7	36	159	Bad	28	17
## 145	9.09	132	68	0	264	123	Good	34	11
## 146	8.77	144	63	11	27	117	Medium	47	17
## 147	3.90	114	83	0	412	131	Bad	39	14
## 148	10.51	140	54	9	402	119	Good	41	16
## 149	7.56	110	119	0	384	97	Medium	72	14
## 150	11.48	121	120	13	140	87	Medium	56	11
## 151	10.49	122	84	8	176	114	Good	57	10
## 152	10.77	111	58	17	407	103	Good	75	17
## 153	7.64	128	78	0	341	128	Good	45	13
## 154	5.93	150	36	7	488	150	Medium	25	17
## 155	6.89	129	69	10	289	110	Medium	50	16
## 156	7.71	98	72	0	59	69	Medium	65	16
## 157	7.49	146	34	0	220	157	Good	51	16
## 158	10.21	121	58	8	249	90	Medium	48	13
## 159	12.53	142	90	1	189	112	Good	39	10
## 160	9.32	119	60	0	372	70	Bad	30	18
## 161	4.67	111	28	0	486	111	Medium	29	12
## 162	2.93	143	21	5	81	160	Medium	67	12
## 163	3.63	122	74	0	424	149	Medium	51	13
## 164	5.68	130	64	0	40	106	Bad	39	17
## 165	8.22	148	64	0	58	141	Medium	27	13
## 166	0.37	147	58	7	100	191	Bad	27	15
## 167	6.71	119	67	17	151	137	Medium	55	11
## 168	6.71	106	73	0	216	93	Medium	60	13
## 169	7.30	129	89	0	425	117	Medium	45	10
## 170	11.48	104	41	15	492	77	Good	73	18
## 171	8.01	128	39	12	356	118	Medium	71	10
## 172	12.49	93	106	12	416	55	Medium	75	15
## 173	9.03	104	102	13	123	110	Good	35	16
## 174	6.38	135	91	5	207	128	Medium	66	18
## 175	0.00	139	24	0	358	185	Medium	79	15
## 176	7.54	115	89	0	38	122	Medium	25	12
## 177	5.61	138	107	9	480	154	Medium	47	11
## 178	10.48	138	72	0	148	94	Medium	27	17
## 179	10.66	104	71	14	89	81	Medium	25	14
## 180	7.78	144	25	3	70	116	Medium	77	18
## 181	4.94	137	112	15	434	149	Bad	66	13
## 182	7.43	121	83	0	79	91	Medium	68	11
## 183	4.74	137	60	4	230	140	Bad	25	13
## 184	5.32	118	74	6	426	102	Medium	80	18
## 185	9.95	132	33	7	35	97	Medium	60	11
## 186	10.07	130	100	11	449	107	Medium	64	10
## 187	8.68	120	51	0	93	86	Medium	46	17
## 188	6.03	117	32	0	142	96	Bad	62	17
## 189	8.07	116	37	0	426	90	Medium	76	15
## 190	12.11	118	117	18	509	104	Medium	26	15

## 191	8.79	130	37	13	297	101	Medium	37	13
## 192	6.67	156	42	13	170	173	Good	74	14
## 193	7.56	108	26	0	408	93	Medium	56	14
## 194	13.28	139	70	7	71	96	Good	61	10
## 195	7.23	112	98	18	481	128	Medium	45	11
## 196	4.19	117	93	4	420	112	Bad	66	11
## 197	4.10	130	28	6	410	133	Bad	72	16
## 198	2.52	124	61	0	333	138	Medium	76	16
## 199	3.62	112	80	5	500	128	Medium	69	10
## 200	6.42	122	88	5	335	126	Medium	64	14
## 201	5.56	144	92	0	349	146	Medium	62	12
## 202	5.94	138	83	0	139	134	Medium	54	18
## 203	4.10	121	78	4	413	130	Bad	46	10
## 204	2.05	131	82	0	132	157	Bad	25	14
## 205	8.74	155	80	0	237	124	Medium	37	14
## 206	5.68	113	22	1	317	132	Medium	28	12
## 207	4.97	162	67	0	27	160	Medium	77	17
## 208	8.19	111	105	0	466	97	Bad	61	10
## 209	7.78	86	54	0	497	64	Bad	33	12
## 210	3.02	98	21	11	326	90	Bad	76	11
## 211	4.36	125	41	2	357	123	Bad	47	14
## 212	9.39	117	118	14	445	120	Medium	32	15
## 213	12.04	145	69	19	501	105	Medium	45	11
## 214	8.23	149	84	5	220	139	Medium	33	10
## 215	4.83	115	115	3	48	107	Medium	73	18
## 216	2.34	116	83	15	170	144	Bad	71	11
## 217	5.73	141	33	0	243	144	Medium	34	17
## 218	4.34	106	44	0	481	111	Medium	70	14
## 219	9.70	138	61	12	156	120	Medium	25	14
## 220	10.62	116	79	19	359	116	Good	58	17
## 221	10.59	131	120	15	262	124	Medium	30	10
## 222	6.43	124	44	0	125	107	Medium	80	11
## 223	7.49	136	119	6	178	145	Medium	35	13
## 224	3.45	110	45	9	276	125	Medium	62	14
## 225	4.10	134	82	0	464	141	Medium	48	13
## 226	6.68	107	25	0	412	82	Bad	36	14
## 227	7.80	119	33	0	245	122	Good	56	14
## 228	8.69	113	64	10	68	101	Medium	57	16
## 229	5.40	149	73	13	381	163	Bad	26	11
## 230	11.19	98	104	0	404	72	Medium	27	18
## 231	5.16	115	60	0	119	114	Bad	38	14
## 232	8.09	132	69	0	123	122	Medium	27	11
## 233	13.14	137	80	10	24	105	Good	61	15
## 234	8.65	123	76	18	218	120	Medium	29	14
## 235	9.43	115	62	11	289	129	Good	56	16
## 236	5.53	126	32	8	95	132	Medium	50	17
## 237	9.32	141	34	16	361	108	Medium	69	10
## 238	9.62	151	28	8	499	135	Medium	48	10
## 239	7.36	121	24	0	200	133	Good	73	13
## 240	3.89	123	105	0	149	118	Bad	62	16
## 241	10.31	159	80	0	362	121	Medium	26	18
## 242	12.01	136	63	0	160	94	Medium	38	12
## 243	4.68	124	46	0	199	135	Medium	52	14
## 244	7.82	124	25	13	87	110	Medium	57	10

## 245	8.78	130	30	0	391	100	Medium	26	18
## 246	10.00	114	43	0	199	88	Good	57	10
## 247	6.90	120	56	20	266	90	Bad	78	18
## 248	5.04	123	114	0	298	151	Bad	34	16
## 249	5.36	111	52	0	12	101	Medium	61	11
## 250	5.05	125	67	0	86	117	Bad	65	11
## 251	9.16	137	105	10	435	156	Good	72	14
## 252	3.72	139	111	5	310	132	Bad	62	13
## 253	8.31	133	97	0	70	117	Medium	32	16
## 254	5.64	124	24	5	288	122	Medium	57	12
## 255	9.58	108	104	23	353	129	Good	37	17
## 256	7.71	123	81	8	198	81	Bad	80	15
## 257	4.20	147	40	0	277	144	Medium	73	10
## 258	8.67	125	62	14	477	112	Medium	80	13
## 259	3.47	108	38	0	251	81	Bad	72	14
## 260	5.12	123	36	10	467	100	Bad	74	11
## 261	7.67	129	117	8	400	101	Bad	36	10
## 262	5.71	121	42	4	188	118	Medium	54	15
## 263	6.37	120	77	15	86	132	Medium	48	18
## 264	7.77	116	26	6	434	115	Medium	25	17
## 265	6.95	128	29	5	324	159	Good	31	15
## 266	5.31	130	35	10	402	129	Bad	39	17
## 267	9.10	128	93	12	343	112	Good	73	17
## 268	5.83	134	82	7	473	112	Bad	51	12
## 269	6.53	123	57	0	66	105	Medium	39	11
## 270	5.01	159	69	0	438	166	Medium	46	17
## 271	11.99	119	26	0	284	89	Good	26	10
## 272	4.55	111	56	0	504	110	Medium	62	16
## 273	12.98	113	33	0	14	63	Good	38	12
## 274	10.04	116	106	8	244	86	Medium	58	12
## 275	7.22	135	93	2	67	119	Medium	34	11
## 276	6.67	107	119	11	210	132	Medium	53	11
## 277	6.93	135	69	14	296	130	Medium	73	15
## 278	7.80	136	48	12	326	125	Medium	36	16
## 279	7.22	114	113	2	129	151	Good	40	15
## 280	3.42	141	57	13	376	158	Medium	64	18
## 281	2.86	121	86	10	496	145	Bad	51	10
## 282	11.19	122	69	7	303	105	Good	45	16
## 283	7.74	150	96	0	80	154	Good	61	11
## 284	5.36	135	110	0	112	117	Medium	80	16
## 285	6.97	106	46	11	414	96	Bad	79	17
## 286	7.60	146	26	11	261	131	Medium	39	10
## 287	7.53	117	118	11	429	113	Medium	67	18
## 288	6.88	95	44	4	208	72	Bad	44	17
## 289	6.98	116	40	0	74	97	Medium	76	15
## 290	8.75	143	77	25	448	156	Medium	43	17
## 291	9.49	107	111	14	400	103	Medium	41	11
## 292	6.64	118	70	0	106	89	Bad	39	17
## 293	11.82	113	66	16	322	74	Good	76	15
## 294	11.28	123	84	0	74	89	Good	59	10
## 295	12.66	148	76	3	126	99	Good	60	11
## 296	4.21	118	35	14	502	137	Medium	79	10
## 297	8.21	127	44	13	160	123	Good	63	18
## 298	3.07	118	83	13	276	104	Bad	75	10

## 299	10.98	148	63	0	312	130	Good	63	15
## 300	9.40	135	40	17	497	96	Medium	54	17
## 301	8.57	116	78	1	158	99	Medium	45	11
## 302	7.41	99	93	0	198	87	Medium	57	16
## 303	5.28	108	77	13	388	110	Bad	74	14
## 304	10.01	133	52	16	290	99	Medium	43	11
## 305	11.93	123	98	12	408	134	Good	29	10
## 306	8.03	115	29	26	394	132	Medium	33	13
## 307	4.78	131	32	1	85	133	Medium	48	12
## 308	5.90	138	92	0	13	120	Bad	61	12
## 309	9.24	126	80	19	436	126	Medium	52	10
## 310	11.18	131	111	13	33	80	Bad	68	18
## 311	9.53	175	65	29	419	166	Medium	53	12
## 312	6.15	146	68	12	328	132	Bad	51	14
## 313	6.80	137	117	5	337	135	Bad	38	10
## 314	9.33	103	81	3	491	54	Medium	66	13
## 315	7.72	133	33	10	333	129	Good	71	14
## 316	6.39	131	21	8	220	171	Good	29	14
## 317	15.63	122	36	5	369	72	Good	35	10
## 318	6.41	142	30	0	472	136	Good	80	15
## 319	10.08	116	72	10	456	130	Good	41	14
## 320	6.97	127	45	19	459	129	Medium	57	11
## 321	5.86	136	70	12	171	152	Medium	44	18
## 322	7.52	123	39	5	499	98	Medium	34	15
## 323	9.16	140	50	10	300	139	Good	60	15
## 324	10.36	107	105	18	428	103	Medium	34	12
## 325	2.66	136	65	4	133	150	Bad	53	13
## 326	11.70	144	69	11	131	104	Medium	47	11
## 327	4.69	133	30	0	152	122	Medium	53	17
## 328	6.23	112	38	17	316	104	Medium	80	16
## 329	3.15	117	66	1	65	111	Bad	55	11
## 330	11.27	100	54	9	433	89	Good	45	12
## 331	4.99	122	59	0	501	112	Bad	32	14
## 332	10.10	135	63	15	213	134	Medium	32	10
## 333	5.74	106	33	20	354	104	Medium	61	12
## 334	5.87	136	60	7	303	147	Medium	41	10
## 335	7.63	93	117	9	489	83	Bad	42	13
## 336	6.18	120	70	15	464	110	Medium	72	15
## 337	5.17	138	35	6	60	143	Bad	28	18
## 338	8.61	130	38	0	283	102	Medium	80	15
## 339	5.97	112	24	0	164	101	Medium	45	11
## 340	11.54	134	44	4	219	126	Good	44	15
## 341	7.50	140	29	0	105	91	Bad	43	16
## 342	7.38	98	120	0	268	93	Medium	72	10
## 343	7.81	137	102	13	422	118	Medium	71	10
## 344	5.99	117	42	10	371	121	Bad	26	14
## 345	8.43	138	80	0	108	126	Good	70	13
## 346	4.81	121	68	0	279	149	Good	79	12
## 347	8.97	132	107	0	144	125	Medium	33	13
## 348	6.88	96	39	0	161	112	Good	27	14
## 349	12.57	132	102	20	459	107	Good	49	11
## 350	9.32	134	27	18	467	96	Medium	49	14
## 351	8.64	111	101	17	266	91	Medium	63	17
## 352	10.44	124	115	16	458	105	Medium	62	16

## 353	13.44	133	103	14	288	122	Good	61	17
## 354	9.45	107	67	12	430	92	Medium	35	12
## 355	5.30	133	31	1	80	145	Medium	42	18
## 356	7.02	130	100	0	306	146	Good	42	11
## 357	3.58	142	109	0	111	164	Good	72	12
## 358	13.36	103	73	3	276	72	Medium	34	15
## 359	4.17	123	96	10	71	118	Bad	69	11
## 360	3.13	130	62	11	396	130	Bad	66	14
## 361	8.77	118	86	7	265	114	Good	52	15
## 362	8.68	131	25	10	183	104	Medium	56	15
## 363	5.25	131	55	0	26	110	Bad	79	12
## 364	10.26	111	75	1	377	108	Good	25	12
## 365	10.50	122	21	16	488	131	Good	30	14
## 366	6.53	154	30	0	122	162	Medium	57	17
## 367	5.98	124	56	11	447	134	Medium	53	12
## 368	14.37	95	106	0	256	53	Good	52	17
## 369	10.71	109	22	10	348	79	Good	74	14
## 370	10.26	135	100	22	463	122	Medium	36	14
## 371	7.68	126	41	22	403	119	Bad	42	12
## 372	9.08	152	81	0	191	126	Medium	54	16
## 373	7.80	121	50	0	508	98	Medium	65	11
## 374	5.58	137	71	0	402	116	Medium	78	17
## 375	9.44	131	47	7	90	118	Medium	47	12
## 376	7.90	132	46	4	206	124	Medium	73	11
## 377	16.27	141	60	19	319	92	Good	44	11
## 378	6.81	132	61	0	263	125	Medium	41	12
## 379	6.11	133	88	3	105	119	Medium	79	12
## 380	5.81	125	111	0	404	107	Bad	54	15
## 381	9.64	106	64	10	17	89	Medium	68	17
## 382	3.90	124	65	21	496	151	Bad	77	13
## 383	4.95	121	28	19	315	121	Medium	66	14
## 384	9.35	98	117	0	76	68	Medium	63	10
## 385	12.85	123	37	15	348	112	Good	28	12
## 386	5.87	131	73	13	455	132	Medium	62	17
## 387	5.32	152	116	0	170	160	Medium	39	16
## 388	8.67	142	73	14	238	115	Medium	73	14
## 389	8.14	135	89	11	245	78	Bad	79	16
## 390	8.44	128	42	8	328	107	Medium	35	12
## 391	5.47	108	75	9	61	111	Medium	67	12
## 392	6.10	153	63	0	49	124	Bad	56	16
## 393	4.53	129	42	13	315	130	Bad	34	13
## 394	5.57	109	51	10	26	120	Medium	30	17
## 395	5.35	130	58	19	366	139	Bad	33	16
## 396	12.57	138	108	17	203	128	Good	33	14
## 397	6.14	139	23	3	37	120	Medium	55	11
## 398	7.41	162	26	12	368	159	Medium	40	18
## 399	5.94	100	79	7	284	95	Bad	50	12
## 400	9.71	134	37	0	27	120	Good	49	16
##	Urban	US							
## 1	Yes	Yes							
## 2	Yes	Yes							
## 3	Yes	Yes							
## 4	Yes	Yes							
## 5	Yes	No							

## 6	No	Yes
## 7	Yes	No
## 8	Yes	Yes
## 9	No	No
## 10	No	Yes
## 11	No	Yes
## 12	Yes	Yes
## 13	Yes	No
## 14	Yes	Yes
## 15	Yes	Yes
## 16	No	No
## 17	Yes	No
## 18	Yes	Yes
## 19	No	Yes
## 20	Yes	Yes
## 21	Yes	Yes
## 22	No	Yes
## 23	Yes	No
## 24	Yes	No
## 25	Yes	Yes
## 26	No	No
## 27	No	Yes
## 28	Yes	No
## 29	Yes	Yes
## 30	Yes	Yes
## 31	Yes	No
## 32	Yes	Yes
## 33	No	Yes
## 34	Yes	Yes
## 35	Yes	Yes
## 36	No	Yes
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## 38	Yes	Yes
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## 45	Yes	Yes
## 46	Yes	Yes
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## 54	Yes	Yes
## 55	No	Yes
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## 57	Yes	No
## 58	Yes	No
## 59	Yes	Yes

## 60	Yes	No
## 61	Yes	Yes
## 62	No	No
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## 64	Yes	Yes
## 65	No	Yes
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## 68	Yes	Yes
## 69	Yes	Yes
## 70	Yes	No
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## 91	No	No
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## 93	Yes	No
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## 95	Yes	Yes
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## 100	No	Yes
## 101	No	Yes
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## 103	No	No
## 104	Yes	Yes
## 105	Yes	No
## 106	Yes	Yes
## 107	No	No
## 108	Yes	No
## 109	Yes	No
## 110	No	No
## 111	Yes	Yes
## 112	Yes	Yes
## 113	Yes	Yes

## 114	Yes	Yes
## 115	Yes	Yes
## 116	Yes	No
## 117	No	No
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## 119	Yes	Yes
## 120	Yes	Yes
## 121	Yes	Yes
## 122	Yes	Yes
## 123	Yes	Yes
## 124	No	Yes
## 125	Yes	No
## 126	No	No
## 127	Yes	Yes
## 128	Yes	Yes
## 129	Yes	Yes
## 130	No	Yes
## 131	Yes	Yes
## 132	Yes	No
## 133	Yes	Yes
## 134	Yes	Yes
## 135	Yes	No
## 136	No	Yes
## 137	No	No
## 138	Yes	No
## 139	Yes	Yes
## 140	No	Yes
## 141	Yes	Yes
## 142	Yes	No
## 143	Yes	No
## 144	Yes	Yes
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## 151	No	Yes
## 152	No	Yes
## 153	No	No
## 154	No	Yes
## 155	No	Yes
## 156	Yes	No
## 157	Yes	No
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## 159	No	Yes
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## 162	No	Yes
## 163	Yes	No
## 164	No	No
## 165	No	Yes
## 166	Yes	Yes
## 167	Yes	Yes

## 168	Yes	No
## 169	Yes	No
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## 174	Yes	Yes
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## 189	Yes	No
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## 192	Yes	Yes
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## 195	Yes	Yes
## 196	Yes	Yes
## 197	Yes	Yes
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## 199	Yes	Yes
## 200	Yes	Yes
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## 206	Yes	No
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## 214	Yes	Yes
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## 218	No	No
## 219	Yes	Yes
## 220	Yes	Yes
## 221	Yes	Yes

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##	236	Yes	Yes
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##	245	Yes	No
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## 277	Yes	Yes
## 278	Yes	Yes
## 279	No	Yes
## 280	Yes	Yes
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## 282	No	Yes
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## 284	No	No
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## 301	Yes	Yes
## 302	Yes	Yes
## 303	Yes	Yes
## 304	Yes	Yes
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## 307	Yes	Yes
## 308	Yes	No
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## 310	Yes	Yes
## 311	Yes	Yes
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## 313	Yes	Yes
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## 315	Yes	Yes
## 316	Yes	Yes
## 317	Yes	Yes
## 318	No	No
## 319	No	Yes
## 320	No	Yes
## 321	Yes	Yes
## 322	Yes	No
## 323	Yes	Yes
## 324	Yes	Yes
## 325	Yes	Yes
## 326	Yes	Yes
## 327	Yes	No
## 328	Yes	Yes
## 329	Yes	Yes

##	330	Yes	Yes
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##	348	No	No
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##	353	Yes	Yes
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##	355	Yes	Yes
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##	357	Yes	No
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##	364	Yes	No
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##	366	No	No
##	367	No	Yes
##	368	Yes	No
##	369	No	Yes
##	370	Yes	Yes
##	371	Yes	Yes
##	372	Yes	No
##	373	No	No
##	374	Yes	No
##	375	Yes	Yes
##	376	Yes	No
##	377	Yes	Yes
##	378	No	No
##	379	Yes	Yes
##	380	Yes	No
##	381	Yes	Yes
##	382	Yes	Yes
##	383	Yes	Yes

```
## 384   Yes  No
## 385   Yes Yes
## 386   Yes Yes
## 387   Yes  No
## 388    No Yes
## 389   Yes Yes
## 390   Yes Yes
## 391   Yes Yes
## 392   Yes  No
## 393   Yes Yes
## 394    No Yes
## 395   Yes Yes
## 396   Yes Yes
## 397    No Yes
## 398   Yes Yes
## 399   Yes Yes
## 400   Yes Yes
```

```
summary(Carseats)
```

```
##      Sales      CompPrice      Income      Advertising
##  Min.   : 0.000   Min.   : 77   Min.   : 21.00   Min.   : 0.000
## 1st Qu.: 5.390   1st Qu.:115   1st Qu.: 42.75   1st Qu.: 0.000
## Median : 7.490   Median :125   Median : 69.00   Median : 5.000
## Mean   : 7.496   Mean   :125   Mean   : 68.66   Mean   : 6.635
## 3rd Qu.: 9.320   3rd Qu.:135   3rd Qu.: 91.00   3rd Qu.:12.000
## Max.   :16.270   Max.   :175   Max.   :120.00   Max.   :29.000
##      Population      Price      ShelfLoc      Age      Education
##  Min.   : 10.0   Min.   : 24.0   Bad   : 96   Min.   :25.00   Min.   :10.0
## 1st Qu.:139.0   1st Qu.:100.0   Good  : 85   1st Qu.:39.75   1st Qu.:12.0
## Median :272.0   Median :117.0   Medium:219   Median :54.50   Median :14.0
## Mean   :264.8   Mean   :115.8                      Mean   :53.32   Mean   :13.9
## 3rd Qu.:398.5   3rd Qu.:131.0                      3rd Qu.:66.00   3rd Qu.:16.0
## Max.   :509.0   Max.   :191.0                      Max.   :80.00   Max.   :18.0
## Urban      US
## No :118    No :142
## Yes:282    Yes:258
##
##
##
##
```

```
nrow(Carseats)
```

```
## [1] 400
```

```
#3.Maximum value of the advertising attribute is calculated.
```

```
max(Carseats$Advertising)
```

```
## [1] 29
```

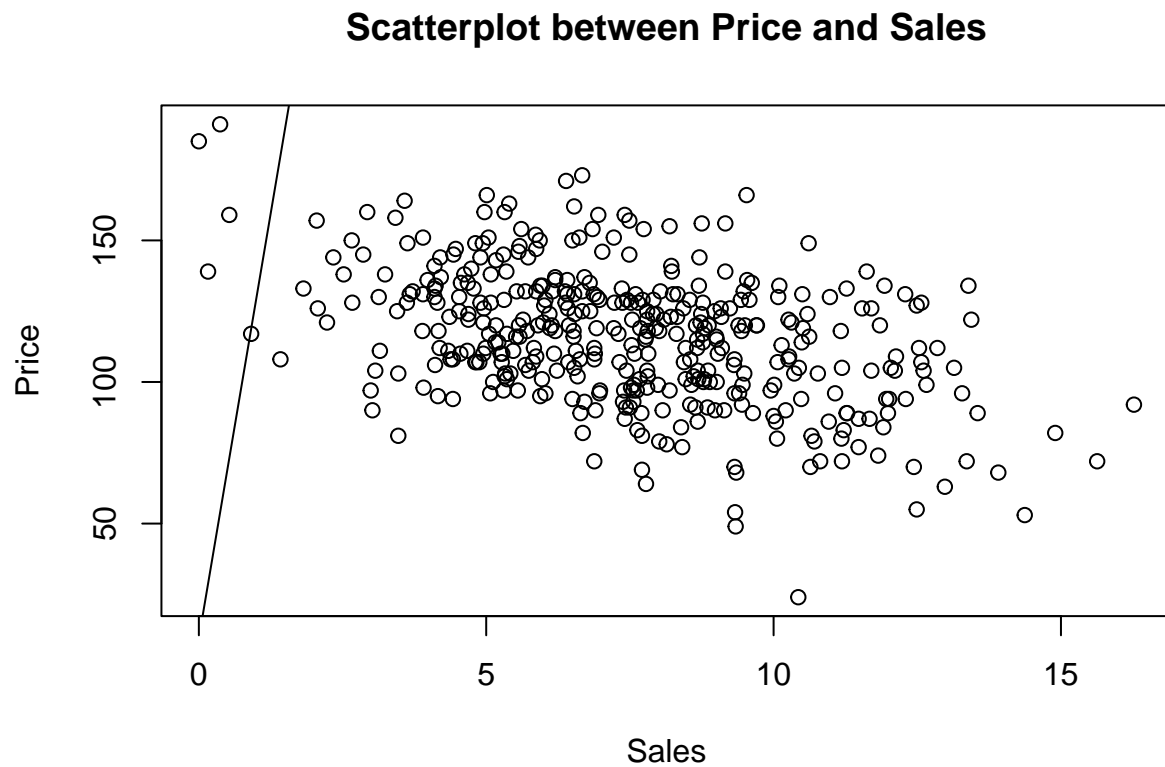

##4.Calculated the IQR of the Price attribute.

```
IQR(Carseats$Price)
```

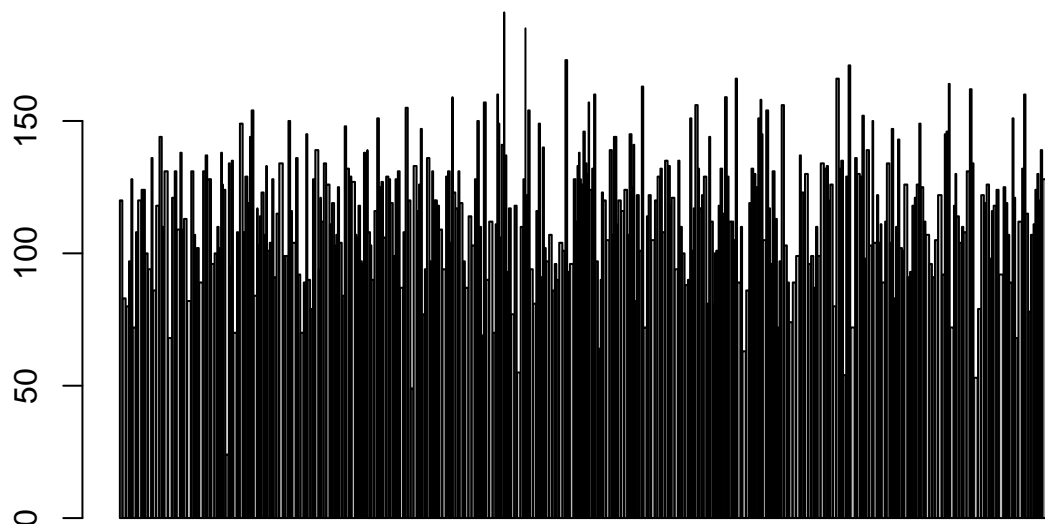
```
## [1] 31
```

##5.Scatter plot between Price and Sales

```
plot(Carseats$Sales, Carseats$Price, main = "Scatterplot between Price and Sales", xlab = "Sales", ylab = "Price")
```



```
barplot(Carseats$Price, Carseats$Sales)
```



Calculated the correlation between sales and price and derived value is negative which mean the sales and price tend to move in opposite direction and the correlation coefficient is very week.

```
cor.test(Carseats$Sales, Carseats$Price)
```

```
##
## Pearson's product-moment correlation
##
## data: Carseats$Sales and Carseats$Price
## t = -9.912, df = 398, p-value < 2.2e-16
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
## -0.5203026 -0.3627240
## sample estimates:
## cor
## -0.4449507
```