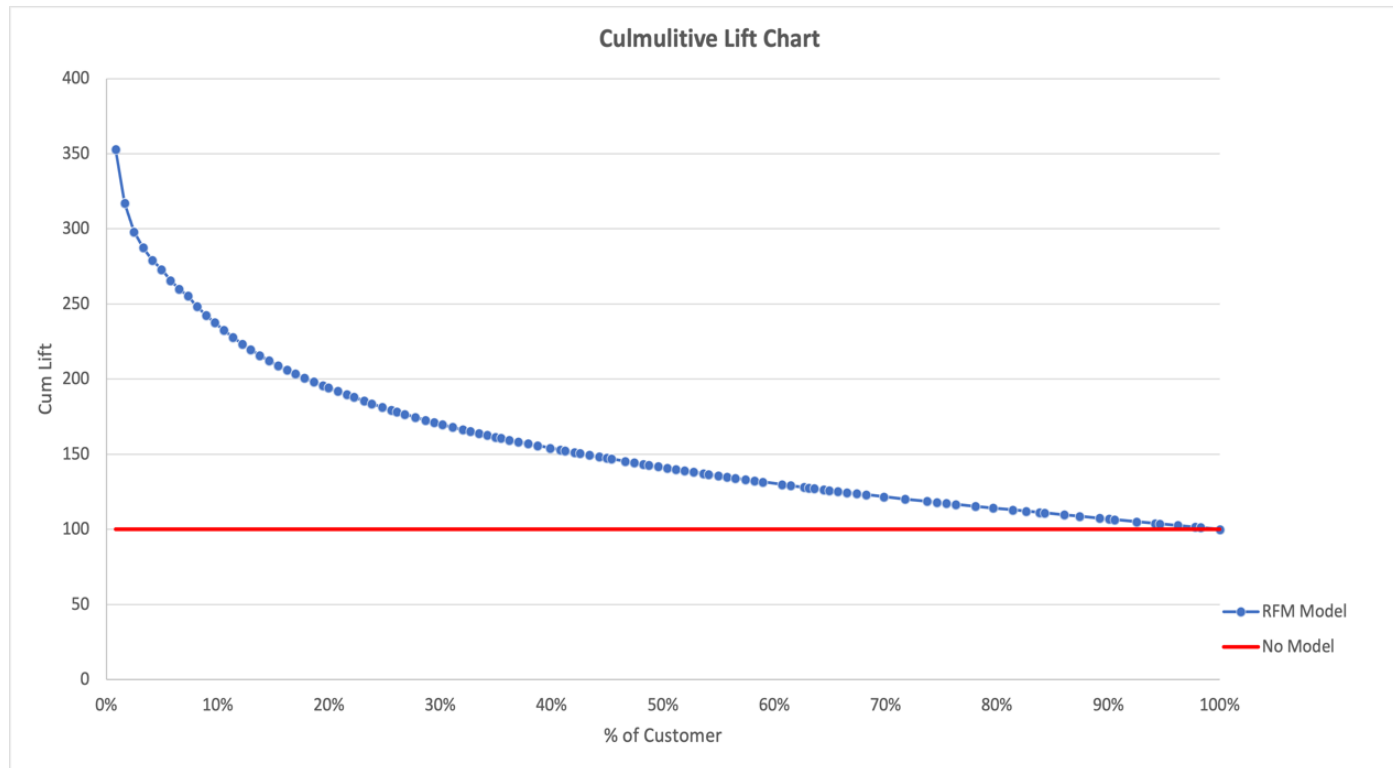Tuscan_Lifestyles__Lifts__Gains__and_Profits

1. Create a cumulative lift chart plotting cumulative lift versus % of customers mailed for the RFM segmentation model approach.


In the Cum Lift chart, it shows that the number of expected customers is about 200, when we are reaching to 20% random targeting customers. The number is 2 times than that in no model applied.

2. Create a cumulative gains chart plotting cumulative gains versus % of customers mailed for the RFM segmentation model approach compared with mass mailing (the no model case).
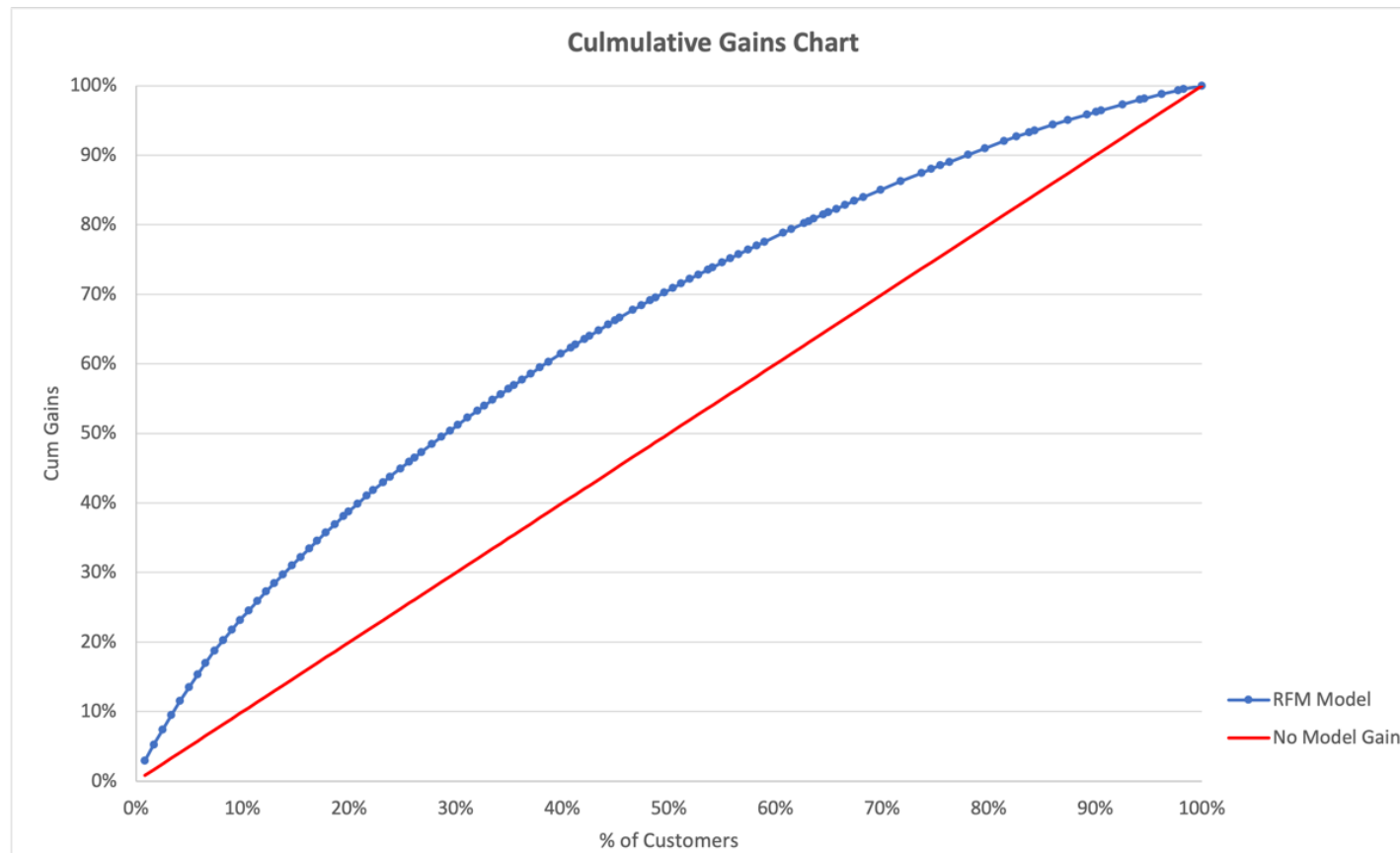
In the Cum Gain chart, we could get buyers from 50% of all customers, when reaching to 30% customers.
Without the RFM model, the number of buyers is 30%.

3. Create a chart that plots total (i.e. cumulative) gross profit on the y-axis vs. % of customers targeted on the x-axis. Note that you would expect gross profit to continue to increase as long as profitable RFM cells are included in the mailing. Then, however, gross profits will peak and decline as unprofitable RFM cells are included in the mailing.
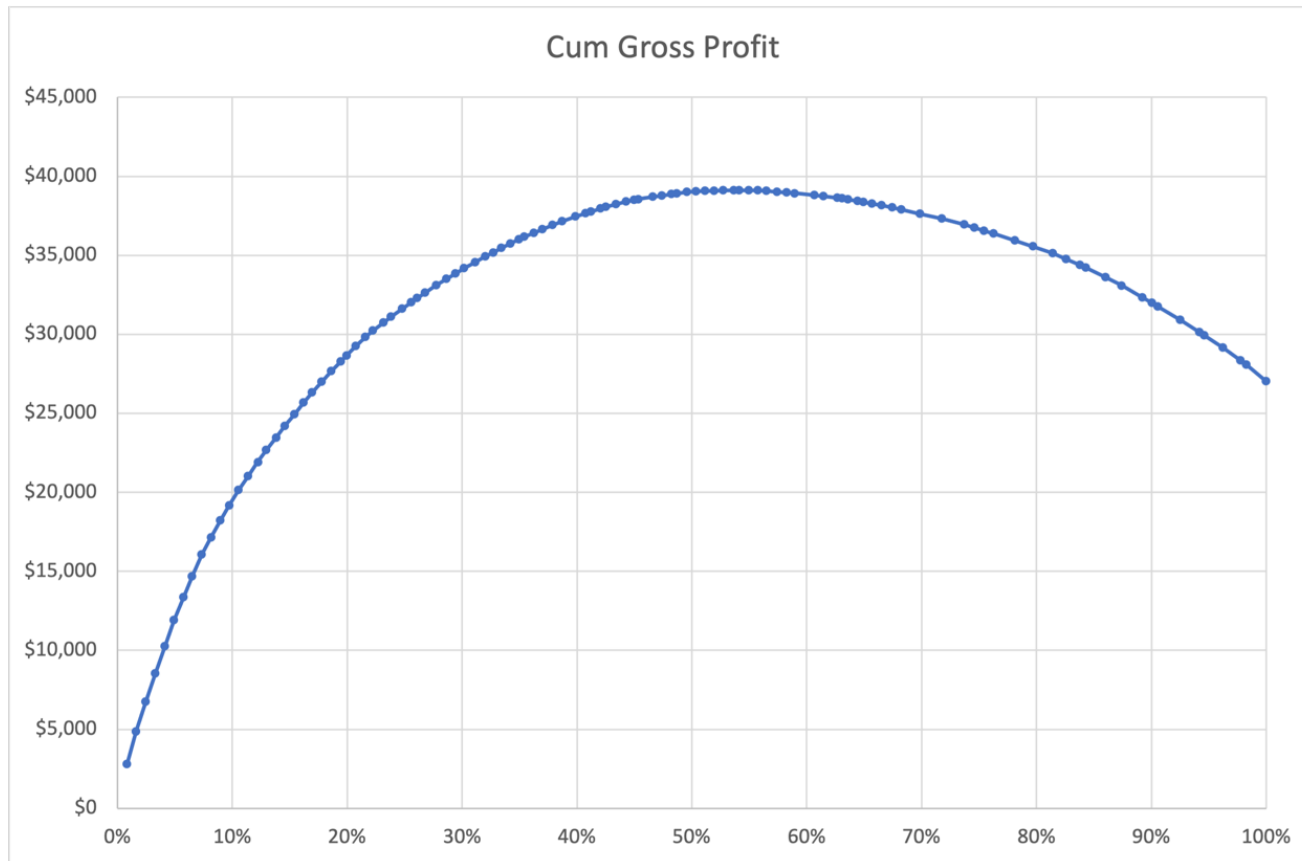
Cum Gross Profit

Attached Calculation Table:

	RFM	cum percent	# customers	Cum # customers	# Buyers	Cum # Buyers	Avg. Order $	Gross Profit	Cum Gross Profit	Response Rate	Cum Response Rate	Lift	Cum Lift	Non Model Lift	Gains	Cum Gains
2	111	0.82%	796	796	69	69	19.09	$2,800.28	$2,800.28	8.67%	8.67%	353	353	100	2.91%	2.91%
3	112	1.65%	796	1592	55	124	7.36	$2,070.60	$4,870.88	6.91%	7.79%	281	317	100	2.32%	5.23%
4	113	2.48%	798	2390	51	175	7.00	$1,860.12	$6,731.00	6.39%	7.32%	260	298	100	2.15%	7.38%
5	114	3.30%	796	3186	50	225	5.17	$1,810.00	$8,541.00	6.28%	7.06%	256	288	100	2.11%	9.49%
6	115	4.12%	796	3982	48	273	4.37	$1,705.76	$10,246.76	6.03%	6.86%	246	279	100	2.02%	11.51%
7	214	4.94%	790	4772	47	320	4.46	$1,659.64	$11,906.40	5.95%	6.71%	242	273	100	1.98%	13.50%
95	351	79.64%	1522	76898	22	2158	2.10	-$375.36	$35,576.96	1.45%	2.81%	59	114	100	0.93%	91.02%
96	542	81.42%	1710	78608	24	2182	1.65	-$459.12	$35,117.84	1.40%	2.78%	57	113	100	1.01%	92.03%
97	255	82.60%	1144	79752	15	2197	2.45	-$362.20	$34,755.64	1.31%	2.75%	53	112	100	0.63%	92.66%
98	251	83.79%	1152	80904	15	2212	2.68	-$370.20	$34,385.44	1.30%	2.73%	53	111	100	0.63%	93.29%
99	233	84.28%	471	81375	6	2218	4.03	-$158.28	$34,227.16	1.27%	2.73%	52	111	100	0.25%	93.55%
100	545	86.02%	1675	83050	20	2238	.53	-$632.60	$33,594.56	1.19%	2.69%	49	110	100	0.84%	94.39%
101	354	87.41%	1343	84393	16	2254	1.00	-$509.08	$33,085.48	1.19%	2.67%	49	109	100	0.67%	95.07%
102	544	89.21%	1738	86131	19	2273	.55	-$747.72	$32,337.76	1.09%	2.64%	45	107	100	0.80%	95.87%
103	431	90.06%	826	86957	9	2282	2.38	-$356.92	$31,980.84	1.09%	2.62%	44	107	100	0.38%	96.25%
104	232	90.56%	475	87432	5	2287	3.07	-$214.40	$31,766.44	1.05%	2.62%	43	107	100	0.21%	96.46%
105	444	92.53%	1903	89335	20	2307	1.39	-$860.60	$30,905.84	1.05%	2.58%	43	105	100	0.84%	97.30%
106	543	94.18%	1599	90934	16	2323	1.04	-$765.08	$30,140.76	1.00%	2.55%	41	104	100	0.67%	97.98%
107	422	94.61%	413	91347	4	2327	1.34	-$204.52	$29,936.24	0.97%	2.55%	39	104	100	0.17%	98.14%
108	352	96.23%	1564	92911	15	2342	1.78	-$782.20	$29,154.04	0.96%	2.52%	39	103	100	0.63%	98.78%
109	443	97.77%	1490	94401	13	2355	1.90	-$812.44	$28,341.60	0.87%	2.49%	36	102	100	0.55%	99.33%
110	525	98.27%	478	94879	4	2359	1.31	-$269.52	$28,072.08	0.84%	2.49%	34	101	100	0.17%	99.49%
111	541	100.00%	1672	96551	12	2371	.98	-$1,046.56	$27,025.52	0.72%	2.46%	29	100	100	0.51%	100.00%
112	Total		96551		2371		299	$27,025.52		2.46%						