Adstock Rate - Deriving with Analytical Method

Instructions

1. Insert Sales and Advertising
2. Open Solver by going to the Data menu and selecting Solver
   If Solver isn't available then load the Add-in.
3. Click Solve

	Sales	Advertising Before Adstock	Advertising After Adstock		Model Results After Adstock
1	670,871	-	-	Adstock Rate	86.34%
2	35,524,494	-	-	α	69414337.5
3	50,173,057	-	-	β	1028672.1580
4	46,849,336	-	-	SSE	##############
5	39,246,118	-	-	Correlation	0.1563
6	21,362	-	-	R-Squared	0.0244
7	8,831	-	-		
8	17,987	-	-		
9	72,788	-	-		
10	70,691,096	-	-		
11	98,352,774	-	-		
12	96,408,086	-	-		
13	97,663,276	-	-		
14	72,524,082	-	-		
15	44,150,510	-	-		
16	293,596,202	-	-		
17	52,892,091	-	-		
18	91,911,501	-	-		
19	93,892,473	-	-		
20	120,030,002	-	-		
21	50,012,648	-	-		
22	47,577,866	-	-		
23	66,395,702	-	-		
24	108,721,179	-	-		
25	69,263,878	-	-		
26	154,607,585	-	-		
27	71,141,134	1.801	1.801		
28	69,654,386	6.302	7.857		
29	62,962,474	6.302	13.086		
30	147,178,533	6.302	17.600		
31	73,797,654	6.302	21.498		
32	76,441,432	0.900	19.461		
33	69,958,251	-	16.802		
34	84,762,834	-	14.506		
35	89,314,294	-	12.524		
36	73,083,886	2.641	13.454		

37	148,786,415	3.698	15.313
38	77,341,625	3.698	16.919
39	70,677,953	3.698	18.305
40	73,150,392	2.641	18.445
41	81,245,287	-	15.924
42	69,788,971	-	13.749
43	52,650,999	-	11.870
44	114,397,752	-	10.248
45	74,672,993	1.163	10.011
46	76,415,745	1.163	9.806
47	78,010,767	1.163	9.629
48	150,047,690	1.163	9.476
49	67,177,030	0.498	8.679
50	68,384,498	-	7.493
51	70,872,725	-	6.470
52	75,167,242	-	5.586
53	51,431,436	-	4.822