

## Mass of the Above Ground Portion of a Sorghum Plant over Time

k	Days After Planting t(k)	Weight in Grams w(k)	$\Delta w(k)$	$\Delta w(k)/w(k-1)$	(M - w(k-1))	$\frac{\Delta w(k)/w(k-1)}{(M - w(k-1))}$	Model Predicts	Model's Absolute Error
0	24	2					2	0.0
1	32	5	3	1.50	81	0.019	4	1.1
2	40	9	4	0.80	78	0.010	8	1.3
3	48	15	6	0.67	74	0.009	15	0.4
4	56	32	17	1.13	68	0.017	27	5.4
5	64	50	18	0.56	51	0.011	45	5.3
6	72	66	16	0.32	33	0.010	65	0.8
7	80	72	6	0.09	17	0.005	79	7.1
8	88	82	10	0.14	11	0.013	83	0.8
9	96	83	1	0.01	1	0.012	83	0.0

2.2 =ave error

Model:

$$M = 83$$

$$c = 0.012$$

$$m(0) = 2$$

$$m(k) = m(k-1) + cm(k-1)(M - m(k-1))$$

ave ratio = 0.012 (Ave ratio of entry in column 5 to entry in column 6)

