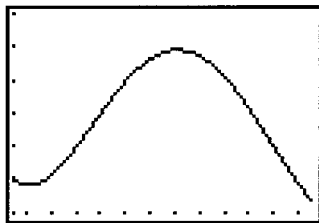


- 23 (a) Graph  $f(x) = 0.0151x^4 - 0.438x^3 + 3.60x^2 - 6.49x + 72.5$  in  $[0.5, 12.5, 1]$  by  $[65, 95, 5]$ . Let  $Y_1 = 0.0151X^4 - 0.438X^3 + 3.6X^2 - 6.49X + 72.5$ . The graph is shown in *Figure 23*. The average temperature is lowest in January ( $69.2^\circ\text{F}$ ). Then, it increases until July ( $89.49^\circ$ ) and then decreases for the remainder of the year.

$[0.5, 12.5, 1]$  by  $[65, 95, 5]$



*Figure 23*

- (b) The following table was determined by evaluating  $f(x)$  at  $x = 1, 2, 3, \dots, 12$ .

Month	1	2	3	4	5	6	7	8	9	10	11	12
Temp.	69	71	75	80	85	88	89	89	85	81	75	69

- (c) Since  $x = 11$  corresponds to November,  $f(11) = 74.8111$  or approximately  $75^\circ\text{F}$ .