Mathematics 122

Quiz #21 Name: Key

You must show your work to get full credit.

Let

$$f(x) = 1 + 10x - 2^x.$$

For $0 \leq x \leq 6$ use your calculator to find

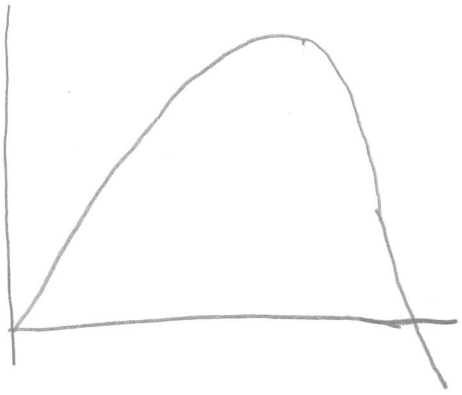
\Y1 = 1+10X−2^X

Xmin = 0

Xmax = 6

The maximum of $f(x)$ 25.08

The minimum of $f(x)$ −3



The maximizer of $f(x)$ 3.85069

The minimizer of $f(x)$ 6

From the graph we see the minimizer is X=6

At X=6 f(6) = 1+10·6−2^6 = 1+60−64 = −3

To find the maximum use 2nd calc maximum