



1. In graph I, a) find $f(2)$, $f(-2)$, and $-f(2)$. b) find all values of x at which $f(x)=0$. These x -values are the zeros of f . c) find all values of x at which $f(x)=1$.

2. Mathematically describe the piecewise function in graph II.

3. Find the cost function of the fence described.

A person encloses a rectangular area of 1000 square feet with fencing. The fencing is priced by the length of fence material. Fence material for the front costs \$12 per foot and fence material for the other 3 sides costs \$8 per foot. Let x be the length of the front. Find the cost function, $C(x)$.

4. Evaluate

$$\frac{f(a+h) - f(a)}{h} \text{ for } f(x) = 3x^2 + 2x - 4, \quad a = 2, \quad h \text{ an unknown constant.}$$