

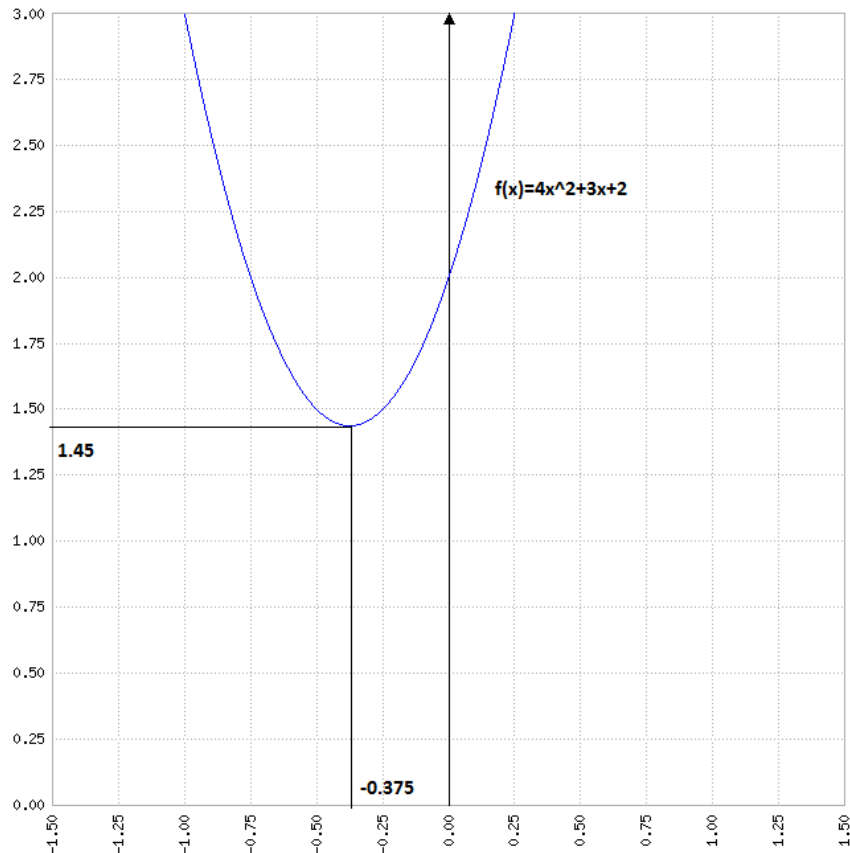
### Answer on Question #42280 – Math - Calculus

Estimate graphically the local maximum and local minimum of  $f(x) = 4x^2 + 3x + 2$

how can ii find the local maximum and minimum.

### Solution.

#### Graphically



Local minimum  $f(x) \cong 1.45$  when  $x \cong -0.375$ .

#### Analytically

$$f(x) = 4x^2 + 3x + 2 = 4\left(x + \frac{3}{8}\right)^2 + \frac{23}{16}.$$

So, function  $f(x)$  has local minimum  $f(x) = \frac{23}{16} = 1\frac{7}{16}$  when  $x = -\frac{3}{8}$ .