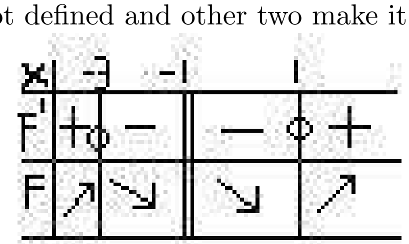
$F'(x) = \frac{2(x-1)(x+1)-(x-1)^2}{(x+1)^2} = \frac{(x-1)(x+3)}{(x+1)^2}$

$F'(x) = 0 \Rightarrow (x-1)(x+3) = 0 \Rightarrow x = 1$ and $x = -3$

Also the derivative confirms our previous observation $F'(-1)$ is not defined. So the critical values are $x = -3, -1, 1$. To classify these points and where the function is decreasing ($\searrow$) or increasing ($\nearrow$) I'll use a similar chart like the one in the previous example. The only difference between this sign chart's construction and the previous one is: I have double-vertical lines emanating from the critical value $x = -1$. This is to distinguish this critical value from the other two(-3 and 1), because this one makes my derivative not defined and other two make it equal to zero.



So according to sign chart: F is $\nearrow$ on the intervals $(-\infty, -3)$ and $(1, \infty)$. F is $\searrow$ on the intervals $(-3, -1)$ and $(-1, 1)$. By using the First Derivative Test at $x = -3$ we have a local maximum and at $x = 1$ we have a local minimum

Here we have a rough sketch of F based on the information above.