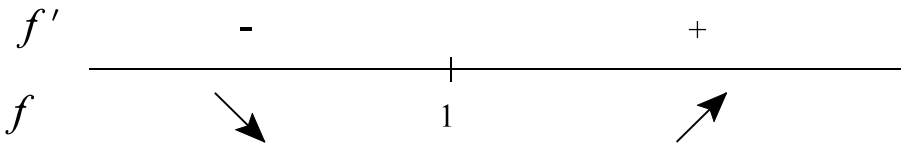
$f(x) = x^2 - 2x + 3$

a. Domain = $\mathbb{R}$

b. Intercepts (0,3), no x-intercepts

c. $f'(x) = 2x - 2 \Rightarrow$ C.N. $x = 1$

d.



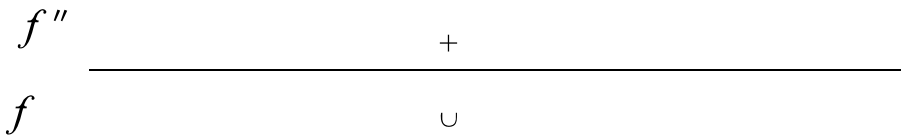
f is decreasing on $(-\infty, 1)$

f is increasing on $(1, \infty)$

e. P (1,2) is a relative minimum on the graph

f. $f''(x) = 2 \Rightarrow$ no 2nd C.N.

g.



f is concave up on $\mathbb{R}$

h. No inflection points

i.

-4, 27.
-3, 18.
-2, 11.
-1, 6.
0, 3.
1, 2.
2, 3.
3, 6.
4, 11.

j.