

Graph $f(x) = \frac{x}{(1+x)^2}$

1. What do you know about $f(x)$? (In general)
2. y-intercept
3. x-intercepts
4. Critical Numbers, CNs.
5. Critical Points, CPs.
6. What kind CPs? Use 2nd derivative test.
7. Inflection points, CPs.
8. End Behavior:
Left End $x \rightarrow -\infty$, $f(x) \rightarrow ?$
Right End $x \rightarrow +\infty$, $f(x) \rightarrow ?$
9. Vertical Asymptotes, VAs.
10. Use all of above to make a nice graph.

Use Maple to check.