Final Review 2 – Graphing Functions

1. If you're asked to sketch the graph of a function, list all the steps you need to do.

2. Sketch the graph of $f(x) = x + \sqrt{1 - x}$.

3. Sketch a possible graph $y = f(x)$ satisfying $f(1) = 1$, $f'(1) = 1/2$, $f(-2) = -2$, f is defined everywhere except $x = 0$ and $x = -3$, f is continuous in its domain, f is not differentiable at -2, $f'(x) > 0$ on $(-2, \infty)$, $f''(x) < 0$ on $(0, 4)$, $f''(x) > 0$ on $(-\infty, -3)$ and f has asymptotes $x = -3$ and $y = 3$.