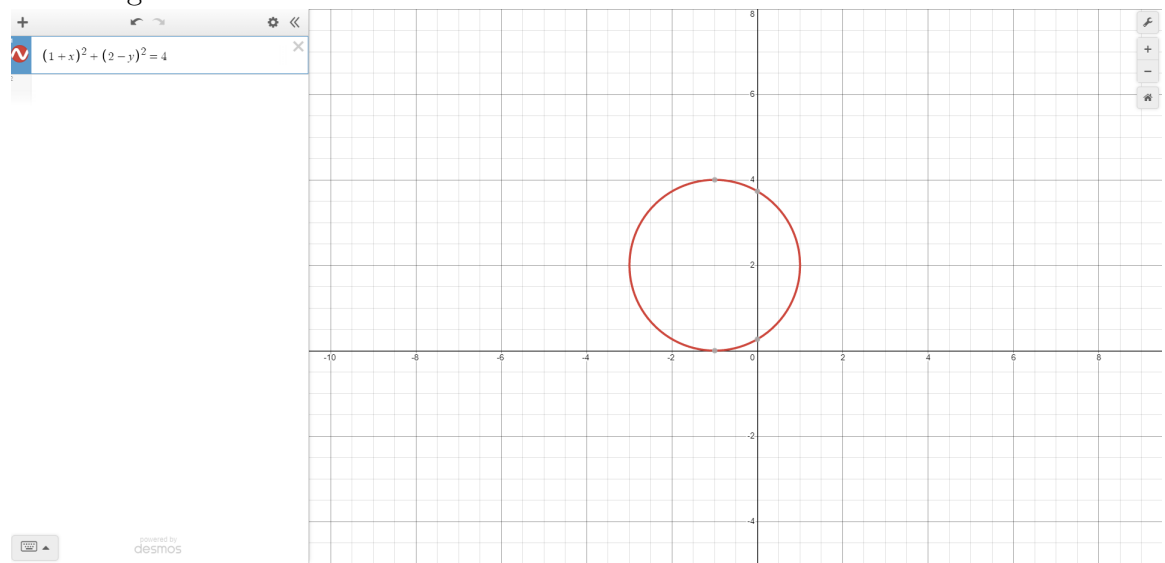
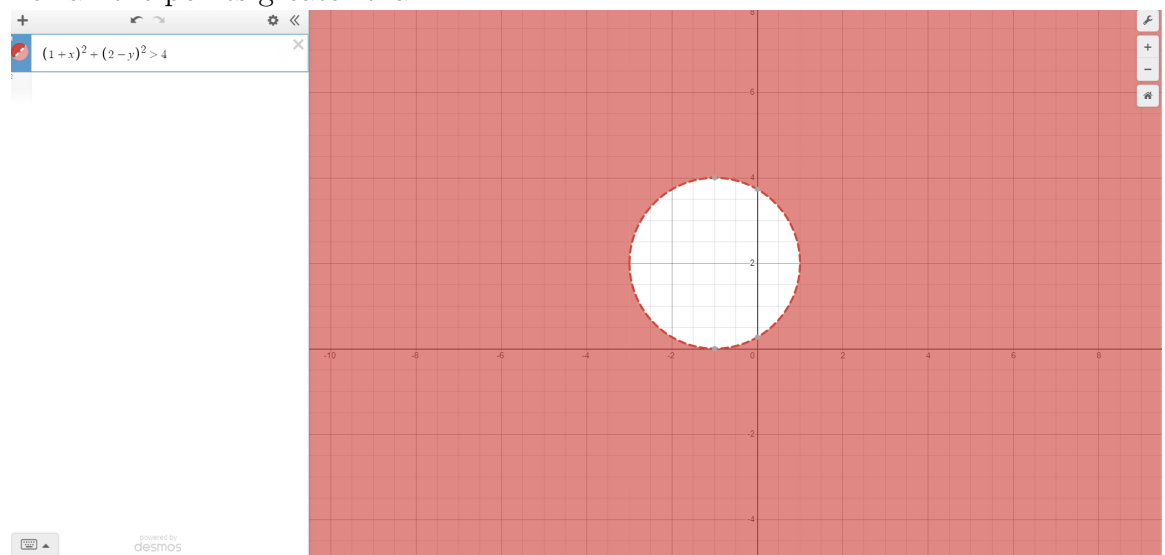


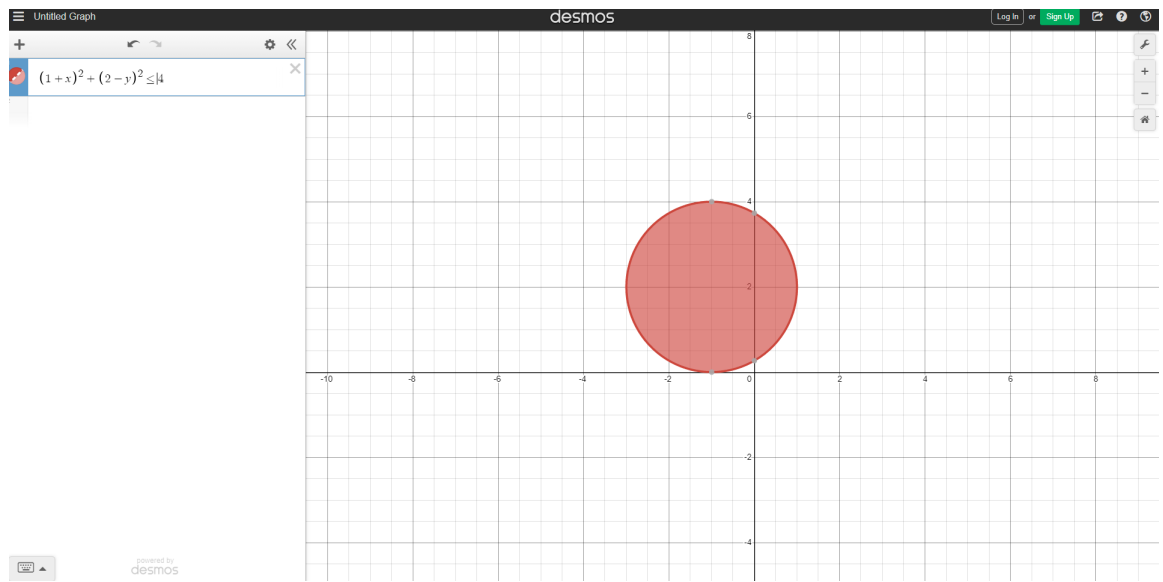
1. (a) Sketching the curve:








- (b) For all the points greater than 4:



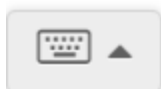
For all the points less than or equal to 4:



- (c) From the points plotted as well as the graph shaded where the points are less than or equal to 4:

| + | | ⌂ |
|---|---|---|
|  | $(1 + x)^2 + (2 - y)^2 \leq 4$ | ✕ |
|  | $(0, 0)$ <input type="checkbox"/> Label | ✕ |
|  | $(-1, 1)$ <input type="checkbox"/> Label | ✕ |
|  | $(2, 2)$ <input type="checkbox"/> Label | ✕ |
|  | $(3, 8)$ <input type="checkbox"/> Label | ✕ |

-8



We see only the point $(-1, 1)$ lies within the shaded region, and thus will be the only one assigned to be red.