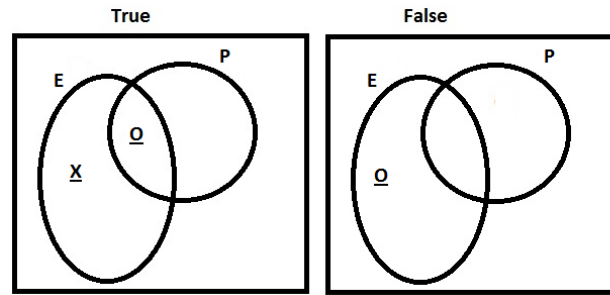


1. The solution looks like:



2. (a) True
 (b) True
 (c) False, $a = -2$
 (d) False, $a = -1, b = 0$
 (e) True
 (f) False, $a = -2\pi, b = 2\pi$
3. (a) Regions 2 and 4
 (b) Regions 1, 2, 4, 6, 3, and 5
 (c) Regions 1, 6, 3, and 5
 (d) Regions 7 and 8
 (e) Regions 8, 1, 2, and 3
 (f) Regions 5 and 6
 (g) "C programs that did not pass any test"
 (h) "programs that are not written in C and passed only test 2"