HW1-2 Soln)

(1,4) means x = 1 and y = 4. The x and y components form the short sides of a right triangle, and the hypotenuse is the line connecting directly the origin to the point. Use the Pythagorean theorem, $c^2 = a^2 + b^2$, or in this case, $r^2 = x^2 + y^2$.

 $\mathbf{r} = (1^2 + 4^2)^{1/2} = +/-4.12$

Take the positive root, since distances are always non-negative. r = 4.12