

Honors Precalculus with Trigonometry (OM013)
Problem Set 1**Name:** _____

Please show all work because you will be graded on the clarity of your explanation as well as the correctness of your work. An answer with no work/explanation will receive zero credit.

1. Find the center-radius form of the equation of the circle with center at $(-7, -4)$ and tangent to the x-axis. (Hint: A line tangent to a circle touches it at exactly one point.)

2. Decide whether or not the equation has a circle as its graph. If it does, give the center and the radius. If it does not, describe the graph: $x^2 + y^2 + 6x - 8y + 26 = 0$

3. Determine whether the relation is a function.

$c = \{(7, 5), (-6, -5), (2, -2), (3, -6)\}$