

Name : _____ ID. # : _____ SER. # : _____

1. Solve the equation $[[3 - 2x]] + 2 = -1$, where $[[x]]$ is the greatest integer less than or equal to x .
(3 pts)

2. Find the other endpoint of a line segment with endpoint $(-1, 3)$ and midpoint $(2, -1)$.
Also, find the length of this segment. (4.5 pts)

3. Find the slope of the line segment joining the point $(-1, 1)$ and the center of the circle $x^2 + y^2 - 6y = 3$. (3 pts)

4. Find the domain and range of the function $y = -\sqrt{16 - x^2}$. Is this function 1-1? (5 pts)

5. Find the vertex of $y = -3x^2 + 2x + 1$, then graph showing all intercepts. write the range, maximum, and minimum of this function.

(4.5 pts)