

Name : \_\_\_\_\_ ID. # : \_\_\_\_\_ SER. # : \_\_\_\_\_

1. Find the equation of the circle that has a **diameter** with **endpoints**  $A(-2, 5)$  and  $B(4, 1)$ .  
(4.5 pts)

2. Find the range, maximum, and minimum of the function  $y = -2x^2 + 3x + 1$  (4 pts)

3. Find the equation of the line passing through the point  $(-1, 3)$  and perpendicular to the line  $2x + 3y = -1$  (3 pts)

4. Identify the functions and then the 1 – 1 functions: (4.5 pts)

(i)  $y = \lceil x \rceil + 1$       (ii)  $x = y^2 - 1$       (iii)  $|x + y| = 1$       (explain your answer)

5. Graph  $y = |x + 3| - 2$ , showing all intercepts. Write down the range. (4 pts)