AP Calculus AB
Dr. Paul L. Bailey

Activity 0814
Wednesday, August 14, 2024

Name:

Write all sets using correct set notation.

Problem 1. Solve the inequality $|x - 10| \geq 0$.

Problem 2. Solve the inequality $|3x - 5| \leq 8$.

Problem 3. Solve the inequality $|2x + 7| > 9$.

Problem 4. Solve the inequality $x^2 - 3x > 10$.

Problem 5. Find the center and radius of the circle with equation $x^2 + y^2 = 12x - 4y + 10$.

Problem 6. Find the equation of a circle which is tangent to the lines $x = 0$, $x = 2$, and $y = x$.

Problem 7. Find the equation of a parabola with focus at $(2, 4)$ and vertex at $(-2, 4)$. Find its x and y intercepts.

Problem 8. Let C be the circle with equation $x^2 + y^2 = 1$ and let P be the parabola with equation $y = x^2$. Find $C \cap P$.