

(1) [3 points] Find the midpoint of the line segment joining  $P_1 = (-3, 2)$  and  $P_2 = (6, 0)$ .

(2) [7 points] Find all points on the  $x$ -axis that are 5 units from the point  $(4, -3)$ .

(3) [5 points] Find the  $x$  and  $y$  intercepts of the graph of  $x^2 + y - 9 = 0$

(4) [5 bonus points] Simplify

$$\frac{\frac{4x + 20}{9x^2}}{\frac{x^2 - 25}{3x}}$$