MATH 19501 Quiz 6 - Winter 25

Name: _____ EMPLID: _____

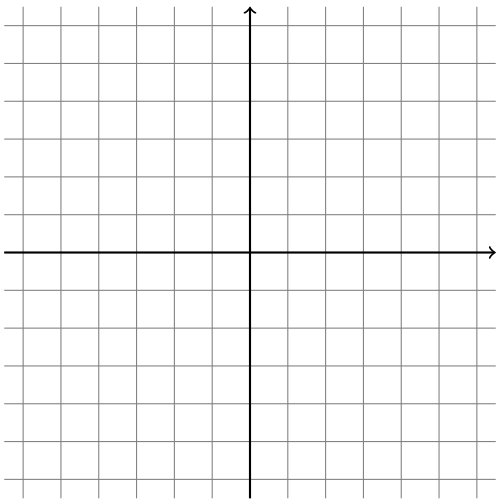
Answer all 2 questions. You must show all of your work as neatly and clearly as possible and indicate the final answer in the provided region for each non-graph question. For all graph questions, you should sketch your graph on the grid provided.

1. Let $P = (1, 5)$ and $Q = (4, 11)$ be points on line l.

(a) Find the equation of a line that passes through the points P and Q. Write your answer in $y = mx + b$ form.

Write your answer in the box below:

(b) Sketch the graph of line l. Label all intercepts on your graph.



2. Let $f(x) = x^2 + 4x + 3$.

(a) Rewrite $f(x)$ in standard form by completing the square or you can use the formula $x = \frac{-b}{2a}$.

Write your answer in the box below:

$f(x) =$

(b) Sketch the graph of $f(x) = x^2 + 4x + 3$. Label the vertex and x-intercepts on your graph.