Math 101-162-Quiz #2_A

Name: **ID** **Serial:**

Q1: For what values of a and b is the function

$$f(x)=\begin{cases} ax+2b & x\le 0 \\ x^2+3a-b & 0<x\le 2 \\ 3x-5 & x\ge 2 \end{cases}$$

Continuous at every x?

Q2: Let $f(x)=x^2-4x$ be a function defined over the interval $[-1,2]$, **use the limit** to find the equation of the tangent line at $P(1,-3)$.

Q3: Find the horizontal and the vertical asymptotes of $f(x) = \frac{1+4e^x}{1-2e^x}$

Math 101-162-Quiz #2_B

Name: **ID** **Serial:**

Q1: For what values of a and b is the function

$$f(x)=\begin{cases} 2b-ax & x\le 0 \\ x^2+3a-b & 0<x\le 2 \\ 5-3x & x\ge 2 \end{cases}$$

Continuous at every x?

Q2: Let $f(x)=4x-x^2$ be a function defined over the interval $[-1,2]$, **use the limit** to find the equation of the tangent line at $P(1,-3)$.

Q3: Find the horizontal and the vertical asymptotes of $f(x) = \frac{1+4e^x}{1-2e^x}$