Name	ID	Sr

Q1(5points) If $g(x) = \dfrac{secx}{h(x)}$ with $h(\pi) = -\dfrac{\sqrt{2}}{2}$ and $h'(\pi) = 2$.

Find $g'(\pi)$.(Show your work)

Q2)(5 points) if $f(x) = \dfrac{sinx}{1-cosx}$. Find $f'(\dfrac{\pi}{2})$ (Show your work)

Q3) (5 points) Find the equation of the **tangent line** to the curve
$y = \frac{x-1}{x+1}$, $x < 0$ that is parallel to the line $x - 2y = 2$

Q4) (5 points) Find the equation of the **tangnet line** to the parapola $y = x^2 + x$, $x < 0$, that passes through the point $(2, -3)$.