Name	ID	Sr

Q1(5points) One side of a right triangle is known to be $20\ cm$ long and the opposite angle is measured as $30°$, with a possible error of $1°$. Use differentials to estimate the error in computing the length of the hypotenuse. (Show your work)

Q2) $If\ coshx = \sqrt{5}$ and $x < 0$ .Find $cothx + cschx$

Q3) (5 points) Find the critical numbers of the function

$$f(x) = \frac{x^2 + 1}{\sqrt{2x+1}}$$

Q4) (5 points)Find the absolute maximum and absolute minimum of $f(x) = \frac{\ln(5x)}{x^2}$ on the interval $[\frac{1}{5}, \frac{e}{5}]$.