Math101 Term171
Sec20 Quiz 4

Name	ID	Sr

Q1(5points) Find the derivative of the function
$g(x) = \cos\left(\sqrt{\sin(\, tan(\pi\, x)\,)} \right)$. (Show your work)

Q2)(5 points)Let $r(x) = f\left(3g\,(\, h(2x)\,)\right)$, where $g(1) = 2$,
$g'(1) = -1$, $h(2) = 1, h'(2) = 2$ and $f'(6) = 3$, find $r'(1)$

Q3) (5 points) Find the equation of the **normal line** to the curve

$e^{x/y} - 1 = x + y - \sin(\frac{\pi}{2} y)$ at the point $(0, -1)$

Q4) (5 points) If the curve $y(x-1)^2 + y^2 = 4$ has a horizantal tangent at the two points $(a, \pm b)$, then find $a + |b|$.