

[7] Find the value of  $h(1)$ ,  $h'(1)$  and  $h''(1)$  if  $h(x) = f(g(x))$  and

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

$$g(x) = \sqrt{x^2 + 2}$$

[8] If  $y = \sqrt{1 - x^2}$ , evaluate the following expression when  $x = \frac{1}{2}$

$$\frac{(1 + (y')^2)^3}{(y'')^2}$$