Feng Chia University 111-1 Class Purdue I Calculus HW THREE (due by 10/21)

Name：_____ SID：_____

1. Find the limit, $\lim_{h\to 0}\frac{\sec\left(\frac{\pi}{3}+h\right)-2}{h}$.	2.Evaluate $\frac{d^{98}}{dx^{98}}\cos(8x)$
3.Find the limit, $\lim_{x\to 0}\frac{(\cos x-1)}{\sin 2x}$.	4.Evaluate $\frac{d}{dx}x^5\sin(7x-8)$
5.Evaluate $f'(x)$, if $f(x)=(3x^4-1)(5x^2+6)$	6. Evaluate $f'(x)$, if $f(x)=\frac{3x^2+2x-7}{5x^2-4x+6}$

7.Evaluate $f'(x)$, if $f(x) = (\sqrt{x} + \frac{1}{\sqrt[3]{x}})^{10}$	8. Find y', if $xsiny + ycosx = \pi$
9. Evaluate $f'(x)$, if $f(x) = tan^3(2x + 1)$	10. Find y'', if $x^2 + 4y^2 = 4$