

# H.W

(الواجب الأول) (5, 4) →

[1] Without using the Calculator find the values of  $\sin x$ ,  $\cos x$ ,  $\tan x$ ,  $\cot x$ ,  $\sec x$ ,  $\csc x$

at  $x = \frac{\pi}{4}$ . (مطلوب من ذاكرة! لا آلة حاسبة)

[2] Determine the period and the amplitude for the function

(a)  $f(x) = 2 \sin 2x$       (b)  $f(x) = 21 + 7 \cos(4x + 3)$

[3] Let  $f(x) = x + 3$ ,  $g(x) = x^2$  find

(a)  $(f+g)(2)$       (b)  $(g/f)(3)$   
(c)  $(f \circ g)(1)$       (d)  $(g \circ f)(1)$

[4] Is the function  $f(x) = \frac{x^3 + 3x}{x^4 - 3x^2 + 4}$  even, odd, or neither?

[5] Start with  $(x^2)$  ~~with~~ Sketch the function  $f(x) = (x+2)^2 + 5$  and find  $D_f$  &  $R_f$