King Fahd University of Petroleum & Minerals
Faculty of Science
Math P-Y, Math 001 quiz # 8

Ahmad Al-Zoubi **4/11/2004**

Name:	Sect. #	**ST.ID #**

1) Find the equation of a circle that has a diameter with endpoints $(2,1)$ & $(-2,5)$.

2) Find the center & the radius of the circle $2x^2 + 2y^2 - 8x + 4y - 22 = 0$, and then sketch its graph.

3) Sketch the graph of $f(x) = [\![2x]\!] + 1 \quad -2 \le x \le 2$

4) Find the domain of the following functions:

a) $f(x) = \dfrac{2}{x^2 - x - 12}$ b) $g(x) = \sqrt{1 - x^2}$ c) $h(x) = \dfrac{\sqrt{x+2}}{x^2 - 9}$

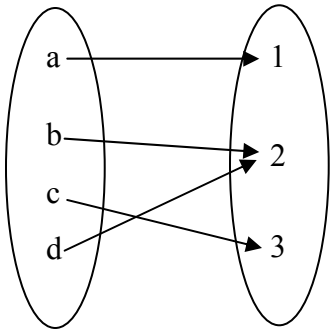
5) Given $f(x)=\begin{cases} 3x-1, x<1 \\ 3x, x=1 \\ x^2+2x, x>1 \end{cases}$, Find:

$f(0)$, $f(1)$ $f(2)$

6) Decide which of the following represents a function:

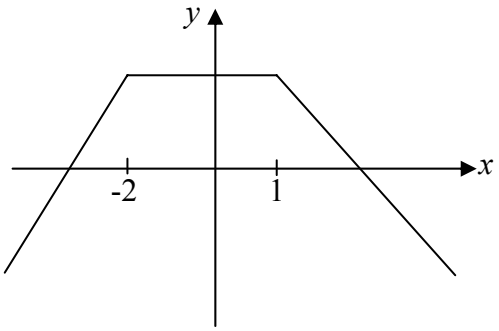
a) $y=x^2-5x$ b) $x=-|y|+1$ c) $\{(-1,0),(0,1),(1,2),(-1,3)\}$

d)



e) $x^2-x=y^2$

7) Use the graph below to determine the intervals over which the function is increasing, decreasing or constant.



8) Sketch the graph of each equation using X- & Y-intercepts & additional points:

a) $|-2x+y|=4$ b) $y=x^2-2x-8$