King Fahd University of Petroleum and Minerals
Prep-Year Math Program
Math 002 - Term 151
Recitation (9.1)

Question 1:   If (a,b) is the solution of the equation $(2+6i)x+(4-5i)y=-8-7i$, where $i=\sqrt{-1}$, then $ab=?$

Answer: $ab=(-2)(-1)=2$

Question 2: If the system of linear equations $\begin{cases} 3x-2y+1=0 \\ x+ky=0 \end{cases}$ is **inconsistent**, then find k.

Answer: If $k=-\dfrac{2}{3}$ then the system is inconsistent.

Question 3

If $(2,-1)$ is a solution of the linear system $\begin{cases} ax - by = 12 \\ bx + ay = -1 \end{cases}$,   then $a+b=$

A) 7	D) 9
B) 8	E) 4
C) 6	

Answer: A)   7

Question 4

If the linear system $\begin{cases} \dfrac{3}{4}x + \dfrac{k}{3}y = 2 \\ \dfrac{1}{2}x + \dfrac{2}{9}y = \dfrac{4}{3} \end{cases}$ is dependent system, then the value of k is

A) 1	D) 2
B) 5	E) 3
C) 4	

Answer: A)   1

Question 5:

If (x,y) is the solution of the system $\begin{cases} y=\log(x+1)+3 \\ y=\log(x+2)+2 \end{cases}$,   then $27x=$

A) 15   B) -18   C) -24   D) -4   E) 36

Answer (C): $27x=27\left(-\dfrac{8}{9}\right)=3(-8)=-24$