Dammam Community College
MATH 012

Past Exam Questions
Section 9.1

1. If (a, b) is the solution of the system

$$\begin{cases} 3x - 4y = 6 \\ 2x + 3y = 5 \end{cases}$$

then $a + b$ is equal to

a. $\frac{41}{17}$
b. $-\frac{35}{17}$
c. $\frac{35}{17}$
d. $\frac{38}{17}$
e. $-\frac{38}{17}$

2. The system $\begin{cases} -2x + 6y = 8 \\ -x + 3y = 4 \end{cases}$ is

a. dependent
b. inconsistent
c. independent
d. consistent with only two solutions.
e. Consistent with only three solutions.

3. If the system of linear equations $\begin{cases} x + Ky = 5 \\ 3x + 5y = 0 \end{cases}$ is **inconsistent**, then $K =$

a. $\frac{5}{3}$
b. $\frac{-3}{5}$
c. $\frac{1}{5}$
d. $\frac{4}{5}$
e. $\frac{-1}{5}$

4. If the system of linear equations $\begin{cases} 2x + 5y + A = 0 \\ 3x - By = 2 \end{cases}$ has an infinite number of solutions, then $A + B$ is equal to

a. $-\frac{53}{6}$
b. $-\frac{17}{4}$
c. $-\frac{19}{3}$
d. -12
e. -25

With complements of Dr. Ali Al-Karkhy

5. Given that the lines with equations $3x - 2y = 12$, $2x - 3y = 13$ and $5x + ky = 19$ intersect at the same point, then the number k satisfies

a. $k = -3$
b. $k \neq -\frac{15}{2}$
c. $k = 2$
d. $k = -\frac{15}{2}$
e. $k \neq -\frac{15}{2}$ and $k \neq -2$

6. If (x, y) is the solution of the system of equations $\begin{cases} 2x - 5\pi y = 3 \\ 3x + 4\pi y = 2 \end{cases}$, then $x + \pi y =$

a. $\frac{17}{23}$
b. $\frac{15}{23}$
c. 1
d. $\frac{13}{23}$
e. $\frac{19}{23}$