King Fahd University
Faculty of Science
P-Y, Math 001 Quiz # 1

Ahmad Al-zoubi **2/21/2004**

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

1) Determine which of the following numbers: $-4, -1.5, 0, 0.6666, \sqrt{3}, 18, 19, 1.20220222.....$ are:

a) Whole numbers

b) Integers

c) Prime numbers

d) Irrational numbers

e) Composite numbers

e) real numbers

2) Name the property of real numbers or property of equality for the following:

a) $x(yz) = (xy)z$

b) $y + z = z + y$

c) $(-\frac{1}{z})(-z) = 1$

d) If $x = y + z$ & $z = 3$, then $x = y + 3$

3) List the elements of the set:

a) x, x Is the composite number less than 12

b) $x - 2$, x is natural number less than 5

4) 1 is not a prime number nor is a composite number. (T or F)

5) Every integer is either prime or composite. (T or F)

6) Irrational numbers is neither repeating nor terminating decimals. (T or F)

7) Rational numbers is a division of 2 integers. (T or F)

8) If $A = \{x \mid x$ is a prime number less than $8\}$, $B = \{y \mid y = 2x + |x|$ where x is integer & $0 \le x < 4\}$

1) List all elements of A & B

2) Find $A \cap B$

9) Use $<, >$ *or* $=$ to compare between the given numbers:

a) $-15 \quad -12$

b) $\frac{1}{3} \quad 0.333$

c) $\pi \quad 3.114$

10) Graph each inequality & write it in interval form:

a) $x > -4$ & $x \le 5$

b) $x > -2$ or $x \le 5$

11) Graph the interval & write it as inequality $(-\infty,-1] \cup (3,\infty)$

12) Simplify $|13-(8)|-|-6|$

13) Use the absolute value notation to write the distance between x & -3 is less than or equal to d.

14) Write without absolute value symbols: $\left| \dfrac{x-2}{\left|x+\dfrac{1}{3}\right|+\left|x-\dfrac{2}{3}\right|} \right|$, $0 \prec x \prec 0.3$

]

15) Use the absolute value notation to describe the statement x is at least 2 units from 5 but less than 7 units from 5.

16) Write an interval notation for the expression x is a real number whose absolute value more than 4.