

King Fahd University of Petroleum and Minerals
Math001-Quiz#1B

- Write TRUE(T) or FALSE(F) for the following statements:
 - $5x + 5y = 5(x + y)$ because of associative property. ()
 - The operation of Division by nonzero real numbers is associative. ()
 - The multiplicative inverse of $-4\frac{2}{5}$ is $\frac{5}{22}$. ()
 - $\pi = 3.14$. ()
 - If R is a notation for the set of all real numbers, Q is a notation for the set of Rational numbers, and H is a notation for the set of Irrational numbers, then $Q \cap R = H$. ()
- If $A = \{-\sqrt{9}, \frac{\pi}{2}, -\frac{3}{16}, 0.67, \sqrt{8}, -\sqrt{-100}\}$, then A has
 - one natural number
 - four rational numbers
 - six real numbers
 - two integers
 - two irrational numbers
- Write without absolute value notation $||x - 4| - |2x - 3||$ if $-3 < x < 2$.
- Write the interval $(-\infty, 2] \cap (0, \infty)$ in inequality notation.
- If $A = \{x | x \text{ is a composite number not greater than } 15\}$
 $B = \{x | x \text{ is an odd number and } 0 \leq x < 20\}$
 $C = \{x | x \text{ is a prime number less than } 15\}$

- List all elements of A, B, and C.
- Find $(A \cap B) \cup C$.

Solutions:

- A=
B=
C=
- $(A \cap B) \cup C$