# King Fahd University of Petroleum & Minerals Prep-Year Math Program

### **Chapter P Vocabulary**

Text book: College Algebra & Trigonometry (Aufman/Barker/Nation – Fifth Edition)

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# Real Numbers Related Vocabulary مفردات تتعلق بالأعداد الحقيقية

Natural numbers: {1,2,3,4,...}

Whole numbers: {0,1,2,3,4,...}

الأعداد الصحيحة [...,-3,-2,-1,0,1,2,3,...]

Terminating: منتهی
الله منتهی Nonterminating: غیر منتهی
الله عشری Decimal: مشری
الله متکرر Repeating:

Repeating Decimal: کسر عشري متکرر For example: 0.123 i.e. 0.123123123...

Terminating Decimal کسر عشري منتهي For example: 0.6, 0.34, 0.22584,..

Nonterminating Decimal کسر عشري غیر منتهی For example: 0.216596..., 0.121221222....

Irrational numbers (الأعداد الغير قياسية (الغير نسبية) (all nonterminating nonrepeating decimals) For example:12.315845690...,  $\sqrt{2}$ ,  $\sqrt[3]{5}$ ,  $\pi$  (على ), Notice that any irrational number cannot be written in the form  $\frac{p}{q}$  where p and q are integers and  $q \neq 0$ 

Real numbers: الأعداد الحقيقية { all rational and irrational numbers}

Prime numbers: الأعداد الأولية {2, 3, 5, 7, 11, 13,...}

Composite numbers: الأعداد الغير أولية (4, 6, 8, 9, 10, 12, 15, ...)

كسر (نسبة بين عددين صحيحين بحيث لا يساوي المقام صفر) Fraction:

Any number in the form  $\frac{p}{q}$ , where p and q are integers,  $q \neq 0$ .

For example:  $\frac{3}{2}$ ,  $\frac{2}{15}$ ,  $\frac{121}{122}$ ,...

# **Chapter P Vocabulary**

# **P.1**

absolute value	inverse
addition	multiplication
additive inverse	multiplicative inverse
associative property	reciprocal
closure property	number line
commutative	numerator
constant	perform
denominator	product
describe	properties
determine	quotient
difference	reflexive
distributive property	repeating decimal
division	set
element	sum
empty (null) set $(\phi)$ $(\phi)$	Sign:+, +
equation	simplify
equality	statement /
equivalent	subset
expression	substitution
factor (n)	subtraction
finite	symbol
identity element	symmetry ( )
inequalities	terminating
infinite	transitive
intersection	union

$\frac{5}{6} \xrightarrow{\rightarrow} \frac{\text{numerator}}{\text{denominator}}$	'2 is an element of C' 2 ∈ C	
set A is a subset of set B A⊆B	5 is a factor of 20 since $5 \times 4 = 20$	
if $a \div b = c$ then $a$ is the dividend (المقسوم), $b$ is the divisor (القاسم) and $C$ is the quotient	a < b ' $a$ is less than $b$ ' $b$ اصغر من $a$	
a>b' $a$ is greater than $b$ ' $b$ اکبر من $a$	$a \geq b$ ' $a$ is greater than or equal $b$ ' $b$ اکبر من أو يساو $a$	
$a \leq b$ ' $a$ is less than or equal $b$ ' $b$ اصغر من أو يساوي $a$		

## **P.2**

base	قاعدة	scientific notation	
evaluate		square root $\sqrt{}$	
exponent		undefined	
cube root <sup>3</sup> √		simplest form	
radicals		rationalize	
restriction	1		

$\sqrt{b}$	$\sqrt[3]{b}$	
'square root of b'	'cube root of b'	

polynomial	monomial	
binomial	Standard from	
coefficient	substitute	
constant term	term	
degree	trinomial	
like terms		

# **P.4**

algebraic concepts	greatest common factor (GCF)
apply	illustrate
assume	nonfactorable
common factor	perfect cube
consecutive	perfect square
cube root	prime numbers
difference of two cubes	procedure
difference of two squares	quadratic in form
distinct	quadratic trinomials $ax^2+bx+c$
factor (v)	reduce
factor by grouping	region
factoring	require
factoring over integers	shaded portion
factorization	special factoring
theorem	sum of two cubes
geometric figure	area
geometry	trial method

applications	equivalent expressions
arithmetic operations	least common factor (LCD)
common denominator	perform
complex fraction	properties
domain	rational expressions
eliminate	

**P.6** 

complex numbers			imaginary part	
conjugate			real part	
disjoint sets	<b>(</b> φ	)	powers of i	i
imaginary number			standard form	

z = x + iyComplex number
عدد مرکب

# Some Geometric Figures: بعض الأشكال الهندسية



