

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**College of General Studies**  
**Prep-Year Math Program**  
**SYLLABUS**  
**MATH001 – TERM 241**

Week	Date	Sec.	Topic	Suggested Review Exercises
1	Aug 25 Aug. 29	Review	Review of Some Arithmetic Operations	Recitation Paper
		P.2	Real Numbers	10,17,28,32,38,40,44,46,59,60,66,70,76,79,81,82
2	Sep. 01 Sep. 05	P.2	Real Numbers (Continue...)	10,17,28,32,38,40,44,46,59,60,66,70,76,79,81,82
		P.3	Integer Exponents and Scientific Notation	11,13,18,24,28,30,34,36,38,48
3	Sep. 08 Sep. 12	P.4	Rational Exponents and Radicals	10,17,16,18,20,26,30,36,39,43,48,52,54,57,62,67,78,84,87,90
		P.5	Algebraic Expressions	13,18,22,34,38,44,46,58,62,66,74,76,78,80,86
4	Sep. 15 Sep. 19	P.6	Factoring	10,14,20,22,30,36,42,46,48,52,60,90, 100,108,114
<b>SAUDI NATIONAL HOLIDAY: 22 - 23 September 2024</b>				
5	Sep. 24 Sep. 26	P.7	Rational Expressions	12,13,16,22,24,32,33,36,51,56,58,64,68,70,72,74,77,82,86,90,94
		P.8	Solving Basic Equations	10,12,14,28,36,40,49,52,54,66,70,76,77,85,98,100
6	Sep. 29 Oct. 03	1.1	The Coordinate plane	28,30,31,39,42,44,45,46,48,
		1.2	Graphs of Equations in Two Variables; Circles	10,14,18,24,29,30,32,36,40,48,50,56,58,70,74,76,78,79,80,82,84,90,94,96,97,98,100,102,104,
7	Oct. 06 Oct. 10	1.3	Lines	16,18,22,24,26,30,34,36,38,39,40,42,44,46,48,50,62,64,70,74,78,86
		1.4	Solving Quadratic Equations	12,13,16,20,26,38,48,54,56,61,62,65,66,67,68,70,85
8	Oct. 13 Oct. 17	1.5	Complex Numbers	70, 72
		1.6	Solving Other Types of Equations	6,14,18,22,24,28,32,36,38,40,42,44,46,48,50,54,56,58,60,62,66,68,69,70,71
9	Oct. 20 Oct. 24	1.7	Solving Inequalities	22,32,38,42,48,51,54,56,60,61,64,68,70
		1.8	Solving Absolute Value Equations and Inequalities	10,12,20,22,28,30,36,46,48,52,54,56
10	Oct. 27 Oct. 31	2.1	Functions	20,22,30,34,36,38,40,44,48,49,51,52,54,56,58,60,62,64,66,68,72
		2.2 2.3	Graphs of Functions; Getting Information from the Graph of a Function	6,10,16,8,20,22,24,26,28,36,40,45,50,52,54,56,59,60,64,66,68 (Section 2.2); 32,34,35 (Section 2.3)
11	Nov. 03 Nov. 07	2.5	Linear Functions	7,10,12,13,15,17,19,24,27,28,29
		2.6	Transformations of Functions	8,10,12,14,16,18,19,21,22,24,40,48,52,54,58,60,62,66,68,70,72,75,85,86,88,89, 90,93
<b>MID – TERM VACATION: 10 - 14 November 2024</b>				
12	Nov. 17 Nov. 21	2.6	Transformations of Functions (continue ...)	
		2.7	Combining Functions	5,6,14,15,17,18,19,29,44,54,55,56,59,60,63,64,65,70,73,74
13	Nov. 24 Nov. 28	3.1	Quadratic Functions	6,12,16,20,27,29,37,42,48,51
		3.2	Polynomial Functions and their Graphs	5,6,11,13,17,26,29,35,37,43,44
14	Dec. 01 Dec. 05	3.3	Dividing Polynomials	5,6,12,13,15,21,26,29,34,39,42,45,48,50,55,60,63,66,68,
		3.4	Real Zeros of Polynomials	3,4,9,10,18,20,24,31,34,36,38,45,50,53,55,57,60,62,63,65,68,70
15	Dec. 08 Dec. 12	3.5	Complex Zeros and the Fundamental Theorem of Algebra	7,9,13,17,18,23,31,37,41,45,47,58,64,66,67,69,72
		3.6	Rational Functions	10,12,15,17,21,24,26,32,33,35,45,53,55,59,63,67
16	Dec. 15 Dec. 16		Review for final exam	

**Exclude the following:** (Examples and their related concepts)

Sec. 1.4: Examples 6 & 7 (Check the application worksheet).

Sec. 1.6: Examples 8 & 9.

Sec. 1.7: Examples 7 & 8.

Sec. 1.8: Example 5.

Sec. 2.2: Examples 7.

Sec. 2.3: Examples 3, 4, 8 & 9.

Sec. 2.7: Example 7.

Sec. 3.1: Example 6 (Check the application worksheet).

Sec. 3.4: Examples 5, 6, 8 & 9.

Sec. 3.2: Examples 9 & 10.

Sec. 3.6: Graphs of rational functions of the form  $f(x) = \frac{p(x)}{q(x)}$ ,

where  $p(x)$  and  $q(x)$  are non-linear polynomials