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| C:\Users\Ayham\Desktop\Untitled-1.jpg | **Saudi Electronic University** | |
| **Final Examination (Form B)**  Date: 23.12.2012 | **Fundamentals of Mathematics**  **MATH 001** |
| **Student Name (ARABIC):**  **Student ID:**  **Instructions:**  This exam duration is **2 hours.**  This is NOT an open book exam.  The use of calculators is permitted.  The use of mobile phones is NOT permitted.  Please answer all the **5** questions.  The number of pages is **8 pages** including this page.    **Marking Scheme:**   |  |  |  |  | | --- | --- | --- | --- | | **Question** | | **Score** |  | | 1 | (30 Marks) |  | | 2 | (4 Marks) |  | | 3 | (4 Marks) |  | | 4 | (4 Marks) |  | | 5 | (8 Marks) |  | **Signature** | | **TOTAL** | |  |  | | |

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| **Question 1:** (30 points)  Choose the correct answer, write your answer in the table below: | | | |
| 1. The value of the expression when , is equal to: | | | |
|  |  |  |  |
| 1. The translation of “ Four multiplied by some number” is: | | | |
|  |  |  |  |
| 1. The slope of the line  is: | | | |
|  |  |  |  |
| 1. One of the following ordered pair is a solution of the equation : 🡺 2x- 4 = y | | | |
|  |  |  |  |
| 1. The Linear function whose graph has the slope and , is: | | | |
|  |  |  |  |
| 1. The factorization of  is: | | | |
|  |  |  |  |
| 1. The point  is located in quadrant: | | | |
| 1. I | 1. II | 1. III | 1. IV |
| 1. The scientific notation of the number  is: | | | |
|  |  |  |  |
| 1. The set of numbers for which the rational expression  is not defined is: | | | |
|  |  |  |  |
| 1. The result of  is **:** | | | |
|  |  |  |  |
| 1. The intercepts of the equation  is: | | | |
|  |  |  |  |
| 1. 40% of 20 is: 🡺 | | | |
| 1. 6 | 1. 4 | 1. 8 | 1. 12 |
| 1. The domain of the function  is: | | | |
|  | |  | |
|  | |  | |
| 1. The value of  when  is: 🡺 | | | |
| 1. -1 |  |  | 1. 2 |
| 1. The result of the division  is: | | | |
|  |  |  |  |
| 1. The factorization of  is: | | | |
|  |  |  |  |
| 1. Which of the following correspondences is not function: | | | |
| |  |  | | --- | --- | | Domain | Range | | 2 | 6 | | 3 | 5 | | 4 |  | | | |  |  | | --- | --- | | Domain | Range | | -1 |  | | 0 | 2 | | 1 |  | | |
| |  |  | | --- | --- | | Domain | Range | | 7 | 0 | | 8 | 1 | | 9 | 2 | | | |  |  | | --- | --- | | Domain | Range | | -5 | 0 | | 0 | 1 | | 5 |  | | |
| 1. The subtraction  is equal: | | | |
|  |  |  |  |
| 1. The result of  is **:** | | | |
|  |  |  |  |
| 1. The result of  is **:** | | | |
|  |  |  |  |

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| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Answer | d | d | b | a | c | c | d | b | d | b |
| Question | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Answer | c | c | d | a | c | d | c | a | a | b |

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| **Question 2:** ( 4 points)  Perform and Simplify the following: |

1. 
2. 

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| **Question 3:** (4 points)  Solve the following equations: |

1. 

2x = 7+3 🡺 2x = 10 🡺 x = 5

1. 

(x – 4) (x + 3) = 0

x – 4 = 0 🡺 x = 4

x + 3 = 0 🡺 x = -3

When x = 4 or x = -3,

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| **Question 4:** (4 points)  Solve the following inequalities: |

1. 
2. 

|  |
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| **Question 5:** (8 points) |

1. Graph the equation:  and find the  and .





1. Solve the following system of equations:



Check: