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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.
 | 1.
 | 1.
 | 1.
 |
| 1. The translation of “ Four multiplied by some number” is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The slope of the line  is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. One of the following ordered pair is a solution of the equation : 🡺 2x- 4 = y
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The Linear function whose graph has the slope and , is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The factorization of  is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The point  is located in quadrant:
 |
| 1. I
 | 1. II
 | 1. III
 | 1. IV
 |
| 1. The scientific notation of the number  is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The set of numbers for which the rational expression  is not defined is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The result of  is **:**
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The intercepts of the equation  is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. 40% of 20 is: 🡺
 |
| 1. 6
 | 1. 4
 | 1. 8
 | 1. 12
 |
| 1. The domain of the function  is:
 |
| 1.
 | 1.
 |
| 1.
 | 1.
 |
| 1. The value of  when  is: 🡺
 |
| 1. -1
 | 1.
 | 1.
 | 1. 2
 |
| 1. The result of the division  is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The factorization of  is:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. Which of the following correspondences is not function:
 |
| 1.

|  |  |
| --- | --- |
| Domain | Range |
| 2 | 6 |
| 3 | 5 |
| 4 |  |

  | 1.

|  |  |
| --- | --- |
| Domain | Range |
| -1 |  |
| 0 | 2 |
| 1 |  |

  |
| 1.

|  |  |
| --- | --- |
| Domain | Range |
| 7 | 0 |
| 8 | 1 |
| 9 | 2 |

  | 1.

|  |  |
| --- | --- |
| Domain | Range |
| -5 | 0 |
| 0 | 1 |
| 5 |  |

  |
| 1. The subtraction  is equal:
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The result of  is **:**
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The result of  is **:**
 |
| 1.
 | 1.
 | 1.
 | 1.
 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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. 

|  |
| --- |
| **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,

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

1. 
2. 

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

1. Graph the equation:  and find the  and .





1. Solve the following system of equations:

 

Check: