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| C:\Users\Ayham\Desktop\Untitled-1.jpg | **Saudi Electronic University** |
| **Final Examination (Form A)**Date: 19.05.2013 | **Fundamentals of Mathematics****MATH 001** |
| **Student Name (ARABIC):** **Student ID:****Instructor Name: CRN :****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 solution of is:
 |
| 1.
 |  | 1.
 | 1.
 |
| 1. The translation of “30 less than d” is:
 |
|  |  |  |  |
| 1. The coordinates of the **y-intercept** of the line are:
 |
|  |  |  |  |
| 1. Suppose . When y=4 the value of is:
 |
|  |  |  |  |
| 1. The equation of the line containing the point (4,1) and parallel to the line is
 |
|  |  |  |  |
| 1. The product of the **slopes** of two perpendicular lines is:
 |
|  |  |  | 1. 2
 |
| 1. The quadrant for which the first coordinate is positive and the second coordinate is negative is:
 |
| 1. I
 | 1. II
 | 1. III
 | 1. IV
 |
| 1. The value of is :
 |
|  |  |  |  |
| 1. The set of numbers for which the rational expression  is not defined is:
 |
|  |  | 1.
 | 1.
 |
| 1. The value of the expression  is equal to:
 |
|  | 1. 0
 |  |  |
| 1. The factorization of the polynomial  is:
 |
|  |  |  |  |
| 1. The greatest common factor (*GCF*) of and is:
 |
|  |  |  |  |
| 1. The domain of the function  is:
 |
| 1.
 | 1.
 |
| 1.
 | 1.
 |
| 1. The inequality  is equivalent to:
 |
|  |  |  |  |
| 1. The result of is:
 |
|  |  |  |  |
| 1. The factorization of  is:
 |
|  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. Which of the following correspondences IS NOT a function?
 |
|  |  |
|  |  |
| 1. If , then is equal to:
 |
|  |  |  |  |
| 1. The result of  is **:**
 |
| 1.
 | 1.
 | 1.
 | 1.
 |
| 1. The result of is:**:**
 |
|  |  |  |  |

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

**Question 2:**( 4 points)

1. Multiply:
2. Perform and simplify

**Question 3:** (4 points)

Solve the following equations:

X = 2

|  |
| --- |
| **Question 4:** (4 points) Solve the following inequalities and write the set of solutions as an interval: |

or

1. 

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

1. Graph the lines and , and

then , shade the solutions of the system

1. Solve the following system of equations:

Check: