|  |  |  |
| --- | --- | --- |
| 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** | |  |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Question 1:** (30 points)  Choose the correct answer, write your answer in the table below: | | | |
| 1. The solution of is: | | | |
|  |  |  |  |
| 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. 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. 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. 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: