**Final Exam 425 Math**

# Question1

**Solve:**

**a)**

**b)**

# Question2

**a)Solve the Cauchy problem:**

**b) Find the integral surface of:**

# Question3

**a)Does the following problem has a unique solution? Justify your answer.**

**b) Use D'Alembert solution to solve the problem:**

## Question4

**Solve the Heat equation :**

**Subject to :**

**.**

## Question5

**Find the potential inside the cylinder :**

**, where f is acontinuous function such that**

**Good Luck**

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