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| CIS 3120: Programming for Analytics  Mid-term Exam | |
| Kannan Mohan  Department of CIS, Baruch College | Duration: 1 hour 15 minutes  Max points: 100 |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Please go to** [**the INSTRUCTIONS**](https://blogs.baruch.cuny.edu/cis3120/deliverables/midterm-exam-instructions/) **page and read the instructions before proceeding.**

Answer all questions. Use Jupiter notebook to write your code.

1. Write code to get a number from the user and calculate the output as described below. If user enters 10, calculate ((1/2)+(2/3)+(3/4)+….+(10/11))2 = 63.68. (10 points)
2. Use scores.txt file provided to answer this question. Find and list all the odd numbers from that file. (10 points)
3. Ask the user for a number. Compute the sum of squares of the digits of that number. For example, if the user enters 428, compute 42+22+82. (20 points)
4. Find all perfect numbers under 1000. (20 points)
5. Find all prime numbers under 1000 that are also palindromic. (40 points)