CS 6375

ASSIGNMENT \_\_\_\_\_6\_\_\_\_\_\_\_

Names of students in your group:

Mansi Kukreja(mxk174330)

Deepan Verma(dxv160430)

Number of free late days used: \_\_\_\_\_\_\_\_0\_\_\_\_\_\_\_\_\_\_\_   
Note: You are allowed a **total** of 4 free late days for the **entire semester**. You can use at most 2 for each assignment. After that, there will be a penalty of 10% for each late day.

Please list clearly all the sources/references that you have used in this assignment.

**For k = 3**

1 1, 2, 6, 8, 10, 12, 13, 17, 19, 20, 24, 27, 29, 34, 38, 39, 41, 51, 53, 54, 55, 57, 58, 61, 63, 65, 73, 75, 77, 78, 85, 88, 89, 93, 94, 97, 98, 99

2 3, 4, 11, 14, 16, 18, 21, 22, 25, 26, 28, 32, 33, 36, 37, 40, 42, 48, 50, 52, 56, 60, 64, 68, 69, 70, 71, 72, 74, 80, 82, 83, 84, 91, 92, 95, 96, 100

3 5, 7, 9, 15, 23, 30, 31, 35, 43, 44, 45, 46, 47, 49, 59, 62, 66, 67, 76, 79, 81, 86, 87, 90

Sum of Squared Error : 1.7970198209295631

**For k = 5**

1 5, 7, 9, 15, 23, 30, 31, 35, 43, 44, 45, 46, 47, 49, 62, 66, 67, 76, 79, 81, 86, 87, 90

2 1, 2, 6, 8, 10, 12, 13, 17, 19, 20, 24, 27, 29, 34, 39, 41, 51, 53, 54, 55, 57, 58, 61, 63, 65, 73, 75, 77, 78, 85, 88, 89, 92, 93, 94, 97, 98, 99

3 3, 14, 16, 18, 21, 25, 26, 40, 42, 50, 69, 74, 80, 100

4 4, 32, 38, 52, 56, 59, 60, 64, 95

5 11, 22, 28, 33, 36, 37, 48, 68, 70, 71, 72, 82, 83, 84, 91, 96

Sum of Squared Error : 1.3388422353600617

**For k = 10**

1 11, 22, 28, 36, 37, 48, 68, 70, 71, 72, 82, 83, 84, 92, 95, 96

2 31, 45, 79

3 1, 57, 61, 65, 99

4 9, 15, 23, 30, 35, 44, 46, 47, 49, 66, 76, 81, 86, 90

5 3, 4, 16, 32, 52, 56, 59, 60, 64

6 2, 8, 17, 53, 94, 98

7 6, 12, 13, 20, 38, 41, 75, 93, 97

8 5, 7, 43, 62, 67, 87

9 14, 18, 21, 25, 26, 33, 40, 42, 50, 69, 74, 80, 91, 100

10 10, 19, 24, 27, 29, 34, 39, 51, 54, 55, 58, 63, 73, 77, 78, 85, 88, 89

Sum of Squared Error : 0.649790243809548

**For k = 15**

1 1, 2, 8, 17, 61, 94, 98, 99

2 19, 20, 27, 41, 55, 77, 78

3 3, 16, 56

4 7, 15, 62, 66, 76, 81, 87

5 10, 73, 85, 88, 89

6 14, 18, 21, 25, 26, 33, 40, 42, 50, 69, 74, 80, 84, 91, 100

7 28, 36, 37, 48, 72, 82, 83, 95, 96

8 32, 68, 71, 92

9 24, 29, 34, 39, 51, 53, 54, 57, 58, 63, 65

10 23, 30, 35, 43, 46, 67, 86

11 4, 11, 22, 60, 64, 70

12 9, 44, 45, 47, 49, 90

13 38, 52, 59

14 6, 12, 13, 75, 93, 97

15 5, 31, 79

Sum of Squared Error : 0.4043626296916045

**For k = 25**

1 4, 64

2 28, 37

3 6, 12, 13, 20, 41, 75, 93, 97

4 7, 15, 62, 81, 87

5 80

6 94

7 3, 16, 56

8 9, 23, 30, 44, 45, 46, 47, 49, 66, 76, 86, 90

9 11, 22, 60, 70

10 38, 59

11 5, 31, 35, 43, 67, 79

12 21, 69

13 8, 17

14 33

15 18, 74, 91

16 11, 22, 60, 70

17 32, 52

18 2, 24, 29, 34, 39, 51, 53, 57, 58, 63, 65

19 36, 82

20 1, 61, 98, 99

21 14, 25, 26, 40, 42, 50, 84, 100

22 68, 71, 72, 92

23 48, 83, 95, 96

24 19, 27, 54, 55, 73, 77, 78, 85, 88, 89

25 10

Sum of Squared Error : 0.24545424955795903