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Programming Project Report

A. Using a simulation it takes 48 assignments for the π input and 45 for the e input.

B. Using a simulation neither the π input nor the e input had a number appear less than 4 times. This makes sense since the formula provided is supposed to generate an even distribution of numbers meaning each number should appear ~6 times. 192/32 = 6

C. Please provide an English description of your algorithm for determining the smallest obstacle. Please also provide your source code, and output. The key is an obstacle of minimal size. Be sure to include this in your report.

π input

4 7 10 13 16 19

22 26 29 32 3 6

9 12 16 19 22 25

28 31 2 6 9 12

15 18 21 24 28 31

2 5 8 11 14 18

21 24 27 30 1 4

8 11 14 17 20 23

26 30 1 4 7 10

13 16 20 23 26 29

32 3 6 10 13 16

19 22 25 28 32 3

6 9 12 15 18 22

25 28 31 2 5 8

12 15 18 21 24 27

30 2 5 8 11 14

17 20 24 27 30 1

4 7 10 14 17 20

23 26 29 32 3 7

10 13 16 19 22 25

29 32 3 6 9 12

15 19 22 25 28 31

2 5 9 12 15 18

21 24 27 31 2 5

8 11 14 17 21 24

27 30 1 4 7 11

14 17 20 23 26 29

1 4 7 10 13 16

19 23 26 29 32 3

6 9 13 16 19 22

25 28 31 3 6 9

12 15 18 21 25 28

e input

3 6 9 11 14 17

20 22 25 28 30 1

4 7 9 12 15 17

20 23 26 28 31 2

4 7 10 13 15 18

21 23 26 29 32 2

5 8 11 13 16 19

21 24 27 30 32 3

6 8 11 14 17 19

22 25 27 30 1 4

6 9 12 14 17 20

23 25 28 31 1 4

7 10 12 15 18 21

23 26 29 31 2 5

8 10 13 16 18 21

24 27 29 32 3 5

8 11 14 16 19 22

24 27 30 1 3 6

9 12 14 17 20 22

25 28 31 1 4 7

9 12 15 18 20 23

26 28 31 2 5 7

10 13 15 18 21 24

26 29 32 2 5 8

11 13 16 19 22 24

27 30 32 3 6 9

11 14 17 19 22 25

28 30 1 4 6 9

12 15 17 20 23 25

28 31 2 4 7 10

13 15 18 21 23 26

29 32 2 5 8 10