Assumption is that in the last row (nth row ) the values are 1111

Ex :

For n=4

**[[0 1 0 0]**

**[0 0 1 0]**

**[0 0 0 1]**

**[1 1 1 1]]**

For n=5

**[[0 1 0 0 0]**

**[0 0 1 0 0]**

**[0 0 0 1 0]**

**[0 0 0 0 1]**

**[1 1 1 1 0]]**

The output for the matrice exponents is as follows :

for n = 4 the exponent is 4

for n = 5 the exponent is 7

for n = 6 the exponent is 9

for n = 7 the exponent is 11

for n = 8 the exponent is 18

for n = 9 the exponent is 21

for n = 10 the exponent is 24

for n = 11 the exponent is 35

for n = 12 the exponent is 39

for n = 13 the exponent is 43

for n = 14 the exponent is 58

for n = 15 the exponent is 63

for n = 16 the exponent is 68

for n = 17 the exponent is 87

for n = 18 the exponent is 93

for n = 19 the exponent is 99

for n = 20 the exponent is 122

for n = 21 the exponent is 129

for n = 22 the exponent is 136

for n = 23 the exponent is 163

for n = 24 the exponent is 171

for n = 25 the exponent is 179

for n = 26 the exponent is 210

for n = 27 the exponent is 219

for n = 28 the exponent is 228

for n = 29 the exponent is 263

for n = 30 the exponent is 273

for n = 31 the exponent is 283

for n = 32 the exponent is 322

for n = 33 the exponent is 333

for n = 34 the exponent is 344

for n = 35 the exponent is 387

for n = 36 the exponent is 399

for n = 37 the exponent is 411

for n = 38 the exponent is 458

for n = 39 the exponent is 471

for n = 40 the exponent is 484

for n = 41 the exponent is 535

for n = 42 the exponent is 549

for n = 43 the exponent is 563

for n = 44 the exponent is 618

for n = 45 the exponent is 633

for n = 46 the exponent is 648

for n = 47 the exponent is 707

for n = 48 the exponent is 723

for n = 49 the exponent is 739

for n = 50 the exponent is 802

for n = 51 the exponent is 819

for n = 52 the exponent is 836

for n = 53 the exponent is 903

for n = 54 the exponent is 921

for n = 55 the exponent is 939

for n = 56 the exponent is 1010

for n = 57 the exponent is 1029

for n = 58 the exponent is 1048

for n = 59 the exponent is 1123

for n = 60 the exponent is 1143

for n = 61 the exponent is 1163

for n = 62 the exponent is 1242

for n = 63 the exponent is 1263

for n = 64 the exponent is 1284

for n = 65 the exponent is 1367

for n = 66 the exponent is 1389

for n = 67 the exponent is 1411

for n = 68 the exponent is 1498

for n = 69 the exponent is 1521

for n = 70 the exponent is 1544

for n = 71 the exponent is 1635

for n = 72 the exponent is 1659

for n = 73 the exponent is 1683

for n = 74 the exponent is 1778

for n = 75 the exponent is 1803

for n = 76 the exponent is 1828

for n = 77 the exponent is 1927

for n = 78 the exponent is 1953

for n = 79 the exponent is 1979

for n = 80 the exponent is 2082

for n = 81 the exponent is 2109

for n = 82 the exponent is 2136

for n = 83 the exponent is 2243

for n = 84 the exponent is 2271

for n = 85 the exponent is 2299

for n = 86 the exponent is 2410

for n = 87 the exponent is 2439

for n = 88 the exponent is 2468

for n = 89 the exponent is 2583

for n = 90 the exponent is 2613

for n = 91 the exponent is 2643

for n = 92 the exponent is 2762

for n = 93 the exponent is 2793

for n = 94 the exponent is 2824

for n = 95 the exponent is 2947

for n = 96 the exponent is 2979

for n = 97 the exponent is 3011

for n = 98 the exponent is 3138

for n = 99 the exponent is 3171

for n = 100 the exponent is 3204

Assumption is that in the last row (nth row ) the values are 11111

Ex :

For n=5

**[[0 1 0 0 0]**

**[0 0 1 0 0]**

**[0 0 0 1 0]**

**[0 0 0 0 1]**

**[1 1 1 1 1]]**

for n = 5 the exponent is 5

for n = 6 the exponent is 8

for n = 7 the exponent is 10

for n = 8 the exponent is 12

for n = 9 the exponent is 14

for n = 10 the exponent is 22

for n = 11 the exponent is 25

for n = 12 the exponent is 28

for n = 13 the exponent is 31

for n = 14 the exponent is 44

for n = 15 the exponent is 48

for n = 16 the exponent is 52

for n = 17 the exponent is 56

for n = 18 the exponent is 74

for n = 19 the exponent is 79

for n = 20 the exponent is 84

for n = 21 the exponent is 89

for n = 22 the exponent is 112

for n = 23 the exponent is 118

for n = 24 the exponent is 124

for n = 25 the exponent is 130

for n = 26 the exponent is 158

for n = 27 the exponent is 165

for n = 28 the exponent is 172

for n = 29 the exponent is 179

for n = 30 the exponent is 212

for n = 31 the exponent is 220

for n = 32 the exponent is 228

for n = 33 the exponent is 236

for n = 34 the exponent is 274

for n = 35 the exponent is 283

for n = 36 the exponent is 292

for n = 37 the exponent is 301

for n = 38 the exponent is 344

for n = 39 the exponent is 354

for n = 40 the exponent is 364

for n = 41 the exponent is 374

for n = 42 the exponent is 422

for n = 43 the exponent is 433

for n = 44 the exponent is 444

for n = 45 the exponent is 455

for n = 46 the exponent is 508

for n = 47 the exponent is 520

for n = 48 the exponent is 532

for n = 49 the exponent is 544

for n = 50 the exponent is 602

for n = 51 the exponent is 615

for n = 52 the exponent is 628

for n = 53 the exponent is 641

for n = 54 the exponent is 704

for n = 55 the exponent is 718

for n = 56 the exponent is 732

for n = 57 the exponent is 746

for n = 58 the exponent is 814

for n = 59 the exponent is 829

for n = 60 the exponent is 844

for n = 61 the exponent is 859

for n = 62 the exponent is 932

for n = 63 the exponent is 948

for n = 64 the exponent is 964

for n = 65 the exponent is 980

for n = 66 the exponent is 1058

for n = 67 the exponent is 1075

for n = 68 the exponent is 1092

for n = 69 the exponent is 1109

for n = 70 the exponent is 1192

for n = 71 the exponent is 1210

for n = 72 the exponent is 1228

for n = 73 the exponent is 1246

for n = 74 the exponent is 1334

for n = 75 the exponent is 1353

for n = 76 the exponent is 1372

for n = 77 the exponent is 1391

for n = 78 the exponent is 1484

for n = 79 the exponent is 1504

for n = 80 the exponent is 1524

for n = 81 the exponent is 1544

for n = 82 the exponent is 1642

for n = 83 the exponent is 1663

for n = 84 the exponent is 1684

for n = 85 the exponent is 1705

for n = 86 the exponent is 1808

for n = 87 the exponent is 1830

for n = 88 the exponent is 1852

for n = 89 the exponent is 1874

for n = 90 the exponent is 1982

for n = 91 the exponent is 2005

for n = 92 the exponent is 2028

for n = 93 the exponent is 2051

for n = 94 the exponent is 2164

for n = 95 the exponent is 2188

for n = 96 the exponent is 2212

for n = 97 the exponent is 2236

for n = 98 the exponent is 2354

for n = 99 the exponent is 2379

for n = 100 the exponent is 2404

**You understood the problem.**

**I checked you results with mathematica code**

**S[n\_] := Module[{i, j, A}, A = Table[0, {i, 1, n}, {j, 1, n}];**

**For[i = 1, i < n, i++,**

**A[[i, i + 1]] = 1;**

**A[[n, 1]] = 1;**

**A[[n, 2]] = 1;**

**A[[n, 3]] = 1;**

**];**

**Return[A]]**

**Your answers are correct.**

**Thanks to to the word file.  With that data one can verify.**

**If n is even then exponent is       n\*floor[(n-2)/2]+2**

**If n is odd then the exponent is   n\*floor[(n-2)/2]+3.**