# Python

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### Question 1

Write a Python program which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200 (both included). The numbers obtained should be printed in a comma-separated sequence on a single line. Expected output:

 $2002,2009,2016,2023,2037,2044,2051,2058,2072,2079,2086,2093,2107,2114,2121,2128,2142,2149,\\2156,2163,2177,2184,2191,2198,2212,2219,2226,2233,2247,2254,2261,2268,2282,2289,2296,2303,\\2317,2324,2331,2338,2352,2359,2366,2373,2387,2394,2401,2408,2422,2429,2436,2443,2457,\\2464,2471,2478,2492,2499,2506,2513,2527,2534,2541,2548,2562,2569,2576,2583,2597,...$ 

### Question 2

Define a Python function which can generate and print a list where the values are square of numbers between 1 and 20 (both included).

#### Hints:

Use \*\* operator to get power of a number. Use range() for loops. Use list.append() to add values into a list.

#### Output:

 $\begin{bmatrix} 1 \;,\; 4 \;,\; 9 \;,\; 16 \;,\; 25 \;,\; 36 \;,\; 49 \;,\; 64 \;,\; 81 \;,\; 100 \;,\; 121 \;,\; 144 \;,\; 169 \;,\; 196 \;,\; 225 \;,\; 256 \;,\; 289 \;,\; 324 \;,\; 361 \;,\; 400 \end{bmatrix}$ 

## Question 3

Write a Python function that adds the outer values of the matrix together.

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 \begin{bmatrix} [12\,, & 12\,, & 12\,, & 13]\,, \\ [43\,, & 43\,, & 43\,, & 54]\,, \\ [44\,, & 44\,, & 44\,, & 23]\,, \\ [99\,, & 34\,, & 12\,, & 12] \end{bmatrix}
```

Output: 370