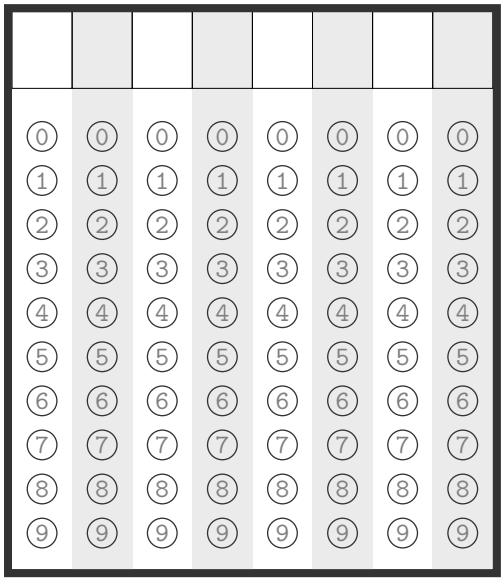
# MTH 337 B
## QUIZ 6 SAMPLE

**Name:**

**UB Person Number:**



**Instructions:**

- If the first column of the quiz contains Python code, in the second column write the output that this code produces when executed.
- If the second column contains a description of some Python operation, in the first column write the code that will perform this operation.
- Treat the first column as a sequence of Jupyter Notebook code cells that are executed from top to bottom. This means e.g. that you import some module in one cell, then you don't need to import it again in the following cells. If you define some variable or function in one cell, then you can use it in the following cells.

| | Python Code | Result | |
|---|---|---|---|
| 1. | `import numpy as np`<br>`a = np.array([1, 8, 0, 2, 9])`<br>`print(np.median(a))` | | |
| 2. | `a = np.arange(6).reshape(2, 3)`<br>`print(a.sum(axis=1))` | | |
| 3. | `a = np.ones((3, 3), dtype=int)`<br>`b = np.tril(a, 0)`<br>`print(b)` | | |
| 4. | `a = np.arange(4).reshape(2, 2)`<br>`print(a + a.T)` | | |
| 5. | | Assume that the following code has been executed:<br>`import numpy as np`<br>Write a function `rand(n, k)` that returns a 2-dimensional numpy array of size `n` × `n`, whose entries are randomly selected positive integers smaller than `k`. | |
| 6. | | Assume that the following code has been executed:<br>`import matplotlib.pyplot as plt`<br>Write a statement that generates a subplot located in the lower left corner of a 3 × 3 grid. Do not plot anything in this subplot. | |