Answers to the exercises in chapter 79 (Winston, 2022)

1. Best order quantity
    - Excel (1000 iterations): 200 with a profit of $ 2,680,525
    - Python (100000 iterations): 300, with an average profit of $3,499,463.00
2. Number of copies of People that the store should order
    - Excel (2000 iterations): 30, with a profit of $21.06
    - Python (100000 iterations): 30, with a profit of $21.27
3. Recommended production quantity for meatloaf dinners
    - Excel (1000 iterations): 110, with an average profit of $446.99
    - Python (100000 iterations): 110 with an average profit of $443.76
4. Order quantity that maximises the bakery's expected profit
    - Excel (1000 iterations): 120, with a profit of $260.42
    - Python (100000 iterations): 120, with a profit of $258.99
5. Production quantity (kale salad) that maximises the expected profit
    - Excel (1000 iterations): 520, with an average profit of $2140.73
    - Python (100000 iterations): 540, with an average profit of $2193.32
6. Production quantity that maximises the company's expected profit
    - Excel (1000 iterations): 2.4 million with an average profit of $4,218,332.91
    - Python (100000 iterations): 2,4 million with an average profit of $4,205,381.32
7. Average sum of the numbers generated by the formula (=RANDARRAY(3,4,2,5)
    - Excel (1000 iterations): 41.7052
    - Python (x iterations): 41.9867