Lab 7. Fun with Recursion
Task 0. Hints.
Fruitful Recursion w Numbers

def sumDigits(num):
    """Given an integer num, computes and returns
    the sum of digits of the absolute value of num.
    >>> sumDigits(0)
    0
    >>> sumDigits(-7)
    7
    >>> sumDigits(90)
    9
    >>> sumDigits(-42)
    6
    >>> sumDigits(889832)
    38
    """
    pass
Task 0. Hints.
Fruitful Recursion w Numbers

\[ \text{sumDigits}(889832) = \text{sumDigits}(88983) + 2 \]
\[ = \text{sumDigits}(8898) + 3 + 2 \]
\[ = \text{sumDigits}(889) + 8 + 3 + 2 \]
\[ \cdots \]
Task 0. Hints.

Fruitful Recursion w Numbers

- How do we extract the last digit of a number using arithmetic operations?
- How do we extract all but the last digit?
Tasks 2-4: **Turtle** Module
Task 2. **Williams Quilt.**
Task 3. **Shrub**
Extra Credit.

Recursive Squares
Acknowledgments

This lab as been adapted from:

• [http://cs111.wellesley.edu/spring19](http://cs111.wellesley.edu/spring19) and