1) Warm-up

What is the output of this program?

```python
import turtle
window = turtle.Screen()
theo = turtle.Turtle()
for line in [1,2,3,4]:
    theo.forward(50)
    theo.penup()
    theo.forward(50)
    theo.pendown()
window.exitonclick()
```

2) range results

What sequence of integers is produced by each of the following invocations of range?

a. range(6)

b. range(10, 15)

c. range(5, 10)

d. range(0, 7, 3)

e. range(20, 15, -1)

f. range(14, -15, -7)

3) range invocation

What invocation of range would produce each of the following sequences of integers?

a. [10, 20, 30, 40, 50]

b. [101, 102, 103, 104]
4) Accumulator pattern

- What is the output of the following programs? If necessary, provide input of your choosing.
  
  a. `f = 1
     for i in range(1, 4):`
     `f = f * i`
     `print(f)`

  b. `word = input("Enter a word: ")`
     `spell = ""
     for c in word:
       spell += c + "-"
     print(spell)`

  c. `greeting = "Hello "
     for part in ['first','middle','last']:
       name = input("What is your " + part + " name? ")`
       `greeting = greeting + name + " "`
     `print(greeting)`

Programming practice

a. Write a program that asks a user how many steps they walked each day of the week and computes their step total for the week.

b. Write a program that asks for the dimensions of multiple rooms and computes the total square footage of a house or apartment.

c. Write a program that asks the user for a word and prints the palindrome of the word (e.g., if the user enters “dog” the output would be “doggod”).

d. Write a program that flips a coin as many times as the user requested and outputs the fraction of flips that were heads.

e. Write a program that plays rock, paper, scissors three times and prints whether the user or computer won the majority of the rounds.