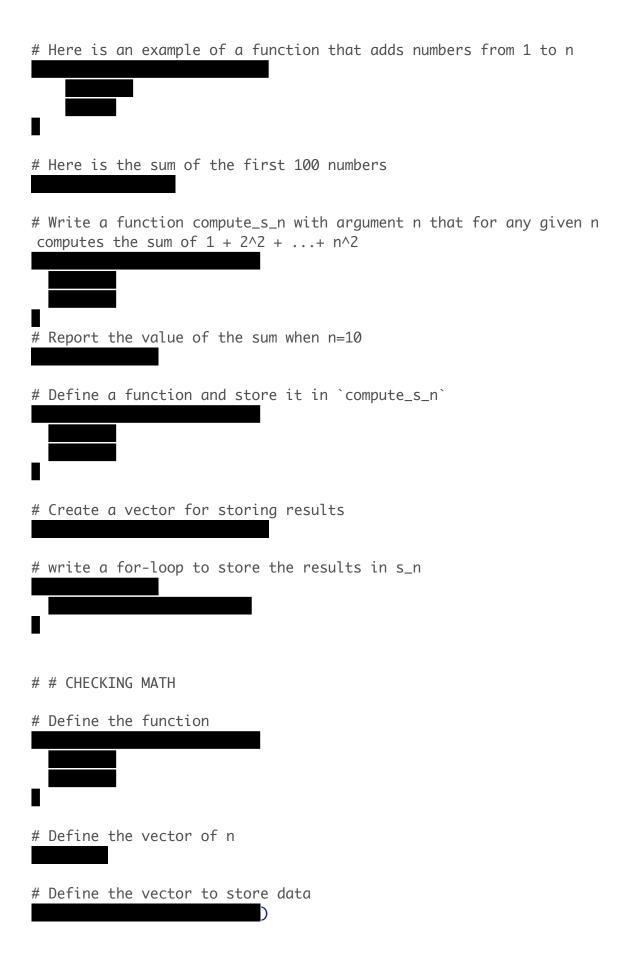
```
# Harvardx: PH125.1x - (1) Data Science: R Basics
# SECTION 4: PROGRAMMING BASICS
# ASSESSMENTS
# # # ASSESSMENT 4.0: PROGRAMMING BASICS
# # IFELSE
# Assign the state abbreviation when the state name is longer than 8
characters
# # DEFINING FUNCTIONS
# Create function called `sum_n`
# Use the function to determine the sum of integers from 1 to 5000
# # LEXICAL SCOPE
# Run this code
# Print the value of x
```

# # FOR LOOPS



# Create the plot

# Check that s\_n is identical to the formula given in the instructions.

## # # # SECTION 1 ASSESSMENT

# # Q1 Write an ifelse statement that returns 1 if the sex is Female
and 2 if the sex is Male. What is the sum of the resulting vector?

# # Q2 Write an ifelse statement that takes the height column and returns the height if it is greater than 72 inches and returns 0 otherwise. What is the mean of the resulting vector?

# # Q3 Write a function inches\_to\_ft that takes a number of inches x and returns the number of feet. One foot equals 12 inches. What is inches\_to\_ft(144)?

# How many individuals in the heights dataset have a height less than 5 feet?

# # Q4 Which of the following are TRUE?

# # Q5 Given an integer x, the factorial of x is called x! and is the product of all integers up to and including x. The factorial() function computes factorials in R. For example, factorial(4) returns  $4! = 4 \times 3 \times 2 \times 1 = 24$ . Complete the code above to generate a vector of length m where the first entry is 1!, the second entry is 2!, and so on up to m!.