02 Checkpoint: Calling Functions

Purpose

Improve your understanding of calling built-in functions and functions that are in a standard Python module.

Problem Statement

In our modern world economy, many items are manufactured in large factories, then packed in boxes and shipped to distribution centers and retail stores. A common question for employees who pack items is "How many boxes do we need?"

Assignment

A manufacturing company needs a program that will help its employees pack manufactured items into boxes for shipping. Write a Python program named `boxes.py` that asks the user for two integers: 1) the number of manufactured items and 2) the number of items that the user will pack per box. Your program must compute and print the number of boxes necessary to hold the items. This must be a whole number. Note that the last box may be packed with fewer items than the other boxes.

Helpful Documentation

- The prepare content for this lesson explains how to call a function and a method.
- The math.ceil() function rounds a number up to the nearest integer that is greater than or equal to a number.

Testing Procedure

Verify that your program works correctly by following each step in this testing procedure:

1. Run your program and enter the inputs shown in the Sample Run section below. Ensure that your program's output matches the sample run output.

Sample Runs

```
> python boxes.py
Enter the number of items: 8
Enter the number of items per box: 5

For 8 items, packing 5 items in each box, you will need 2 boxes.

> python boxes.py
Enter the number of items: 25
Enter the number of items per box: 4
```

```
For 25 items, packing 4 items in each box, you will need 7 boxes.
```

Sample Solution

When your program is finished, view the sample solution [↓] for this assignment to compare your solution to that one. Before looking at the sample solution, you should work to complete this checkpoint program. However, if you have worked on it for at least an hour and are still having problems, feel free to use the sample solution to help you finish your program.

Submission

When complete, report your progress in the associated I-Learn quiz.