

HW03 Prob. 1

- Design a programming problem and provide a reference solution.
 - The problem should be solvable with what we taught in U02.
 - Avoid unnecessary use of features and functions not covered in U02.
 - You will submit a program which contains the author name, problem description, required skills and functions, example IOs, and a reference solution.
 - Conform to the format specified in the following example.

HW03 Prob. 1

```
# circle_area.py
# Author: Jiun-Lang Huang
```

Problem description

```
# Write a program circle_area.py that asks
# the user to enter the radius and then prints
# the circle area. The area should be printed
# with 2 decimal digits.
```

Skills and functions

```
# arithmetic expression, assignment,
# string formatting
# input(), float(), math.pi
```

Example I/O (cmd prompt: "EE3031 > ")

```
# EE3031 > python3 circle_area.py
# Enter the circle radius: 5
# The circle area is 78.54.
# EE3031 > python3 circle_area.py
# Enter the circle radius: 2.5
# The circle area is 19.63.
```

Reference solution

```
import math
radius = float(input('Enter the circle radius: '))
area = math.pi * radius * radius
print('The circle area is %.2f.' % area)
```

Lines starting with ### are outlines. Don't modify them.

```
### HW03 Prob. 1
# circle_area.py
# Author: Jiun-Lang Huang
```

```
### Problem description
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# the user to enter the radius and then prints
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### Skills and functions
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### Example IO (cmd prompt: "EE3031 > ")
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# Enter the circle radius: 5
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```
### Reference solution
import math
radius = float(input('Enter the circle radius: '))
area = math.pi * radius * radius
print('The circle area is %.2f.' % area)
```

Name the program and identify yourself.



Problem description with sufficient details.

input、運算過程、output

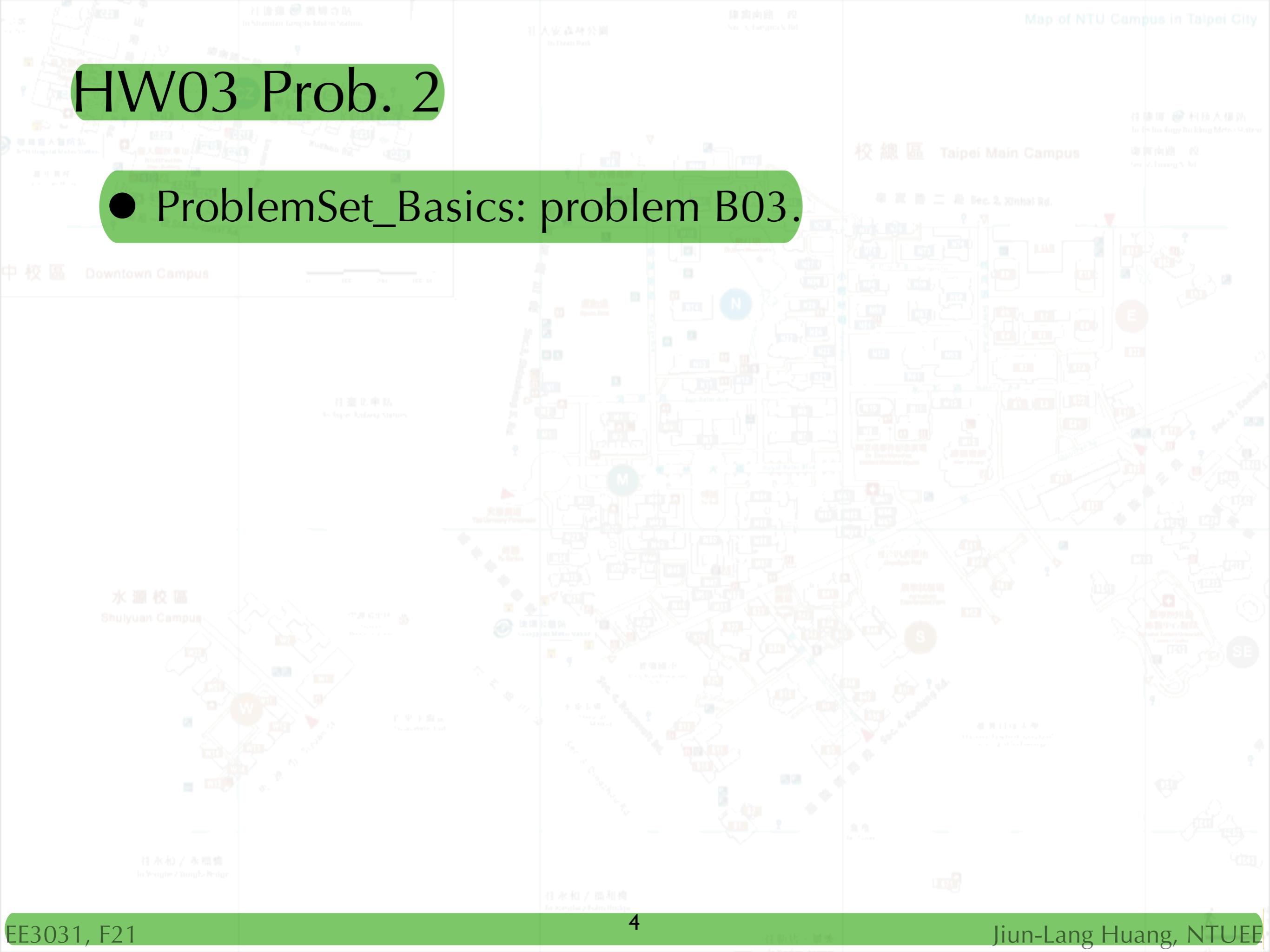
List the involved skills and utilized functions.



Example IOs that cover possible cases.

案例示範

Your reference solution.



HW03 Prob. 2

- ProblemSet_Basics: problem B03.

Map of NTU Campus in Taipei City

中校區 Downtown Campus

行天宮站
In Xiantian Temple Metro Station

仁人安森林公園
In Renren Forest Park

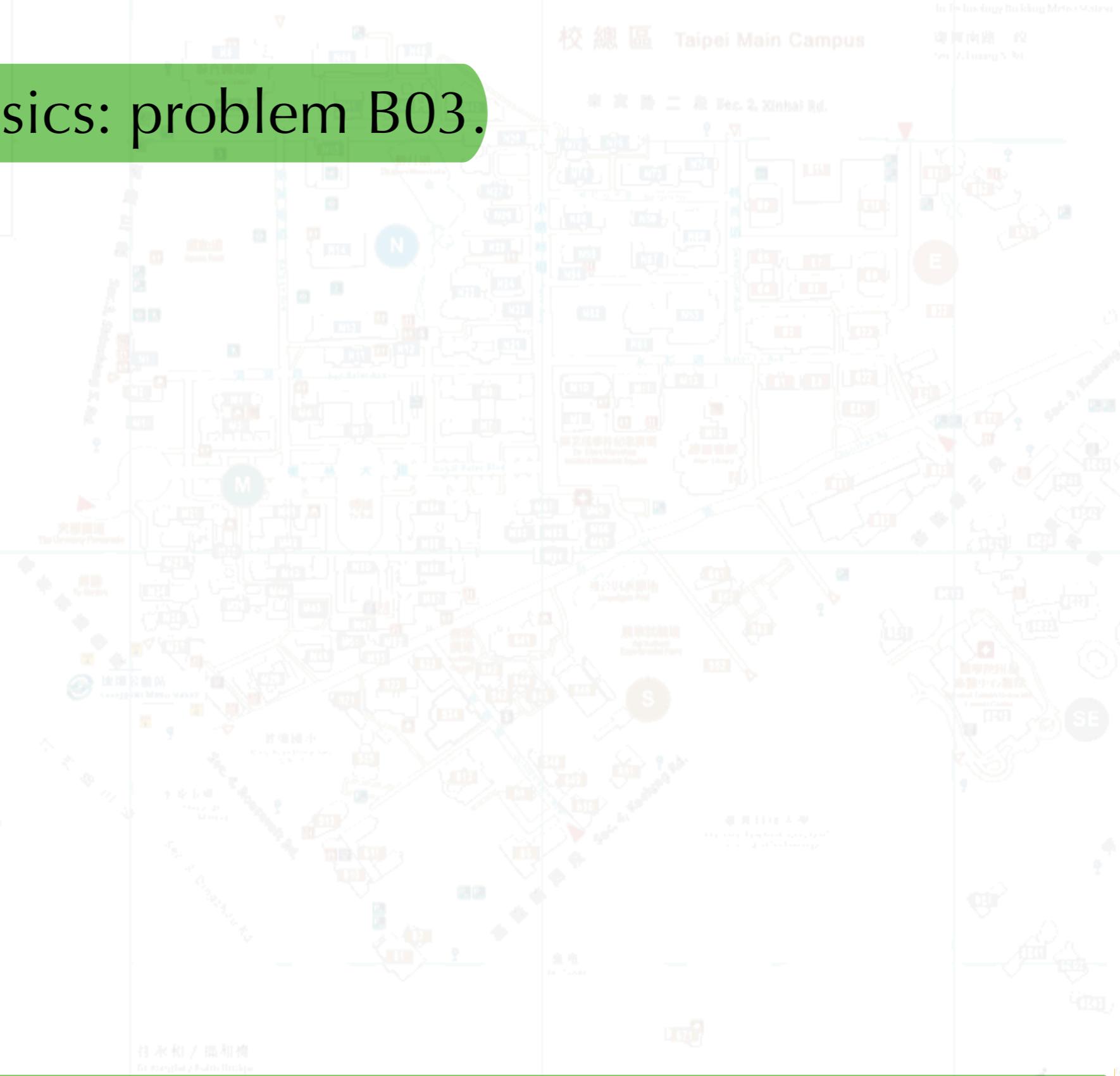
逢安南路 一段
Sec. 1, Feng'an South Rd.

行天宮 柯承人樓站
In Xiantian Temple Metro Station

校總區 Taipei Main Campus

東寧路二段 Sec. 2, Xintai Rd.

行天宮車站
In Xiantian Temple Station



水源校區

Shuiyuan Campus

行水橋 / 承福橋
In Xingshui / Chengfu Bridge

行德橋
In Xingde Bridge

行中上橋
In Xingzhongshang Bridge

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行永和 / 承福橋
In Xingyueh / Chengfu Bridge

Submission Guidelines

- Due: October 13, 2021 via NTU Cool
- Name your program as instructed in the problems.
- Pay attention to your programming style.
- **Avoid using Python features and functions not covered in lectures yet.**

