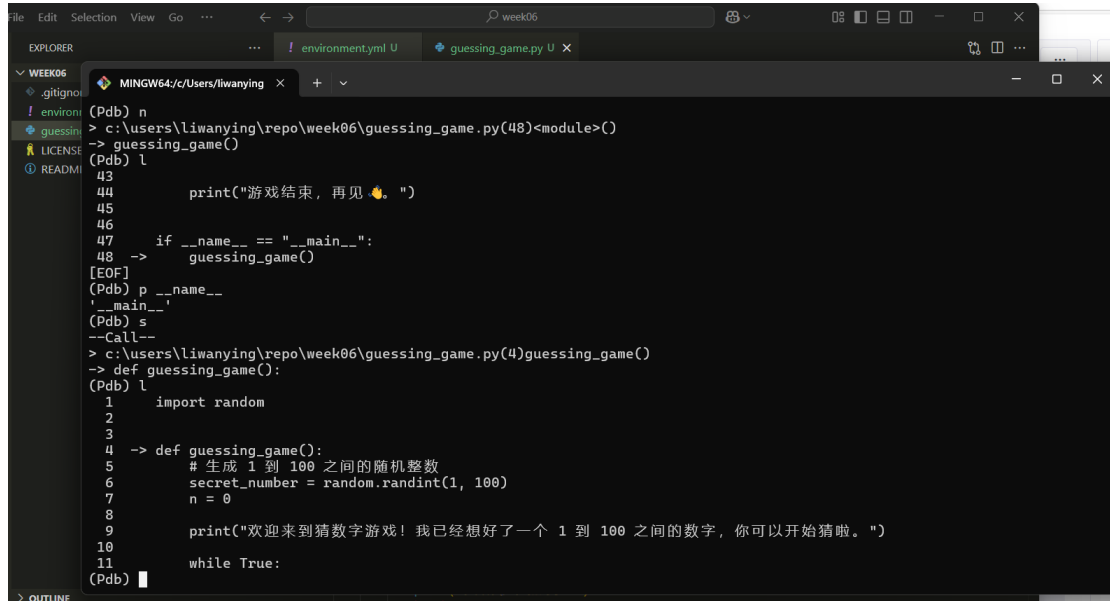
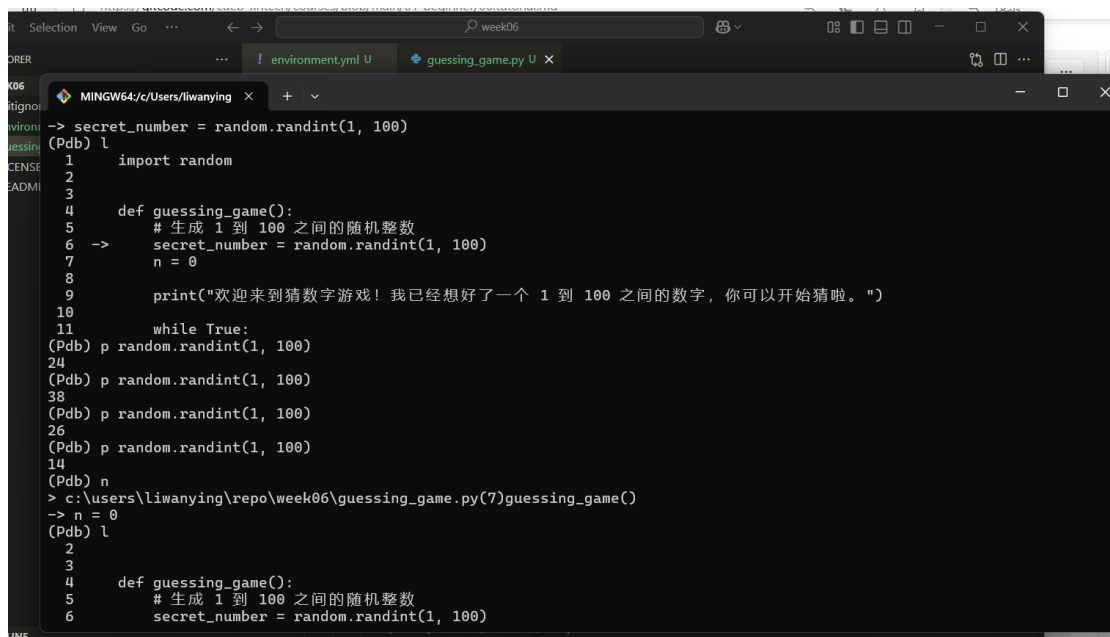


学习笔记



```
File Edit Selection View Go ... week06
EXPLORER
WEEK06
  .gitignore
  ! environment.yml U
  + guessing_game.py U x
  LICENSE
  README

(Pdb) n
> c:\users\liwanying\repo\week06\guessing_game.py(48)<module>()
-> guessing_game()
(Pdb) l
43
44     print("游戏结束，再见 🍌。")
45
46
47     if __name__ == "__main__":
48 ->         guessing_game()
[EOF]
(Pdb) p __name__
'__main__'
(Pdb) s
--Call--
> c:\users\liwanying\repo\week06\guessing_game.py(4)guessing_game()
-> def guessing_game():
(Pdb) l
1     import random
2
3
4 -> def guessing_game():
5     # 生成 1 到 100 之间的随机整数
6     secret_number = random.randint(1, 100)
7     n = 0
8
9     print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。")
10
11     while True:
(Pdb)
```



```
File Edit Selection View Go ... week06
EXPLORER
WEEK06
  .gitignore
  ! environment.yml U
  + guessing_game.py U x
  LICENSE
  README

-> secret_number = random.randint(1, 100)
(Pdb) l
1     import random
2
3
4     def guessing_game():
5     # 生成 1 到 100 之间的随机整数
6 ->     secret_number = random.randint(1, 100)
7     n = 0
8
9     print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。")
10
11     while True:
(Pdb) p random.randint(1, 100)
24
(Pdb) p random.randint(1, 100)
38
(Pdb) p random.randint(1, 100)
26
(Pdb) p random.randint(1, 100)
14
(Pdb) n
> c:\users\liwanying\repo\week06\guessing_game.py(7)guessing_game()
-> n = 0
(Pdb) l
2
3
4     def guessing_game():
5     # 生成 1 到 100 之间的随机整数
6     secret_number = random.randint(1, 100)
```

```
environment.yml U  guessing_game.py U
MINGW64/c/Users/liwanying x + v
8
9     print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。")
10
11 ->     while True:
12         n += 1
13         # 获取玩家输入
14         guess = input(f"(第 {n} 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出）：")
15         guess = guess.strip() # 去除多余空白字符
16
(Pdb) n
> c:\users\liwanying\repo\week06\guessing_game.py(12)guessing_game()
-> n += 1
(Pdb) n
> c:\users\liwanying\repo\week06\guessing_game.py(14)guessing_game()
-> guess = input(f"(第 {n} 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出）：")
(Pdb) l
9         print("欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。")
10
11         while True:
12             n += 1
13             # 获取玩家输入
14 ->             guess = input(f"(第 {n} 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出）：")
15             guess = guess.strip() # 去除多余空白字符
16
17             if guess == "q":
18                 break
19
(Pdb) p n
1
(Pdb)
```

```
MINGW64/c/Users/liwanying x + v
13         # 获取玩家输入
14 ->         guess = input(f"(第 {n} 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出）：")
15         guess = guess.strip() # 去除多余空白字符
16
17         if guess == "q":
18             break
19
(Pdb) p n
1
(Pdb) n
(第 1 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出）： 35
> c:\users\liwanying\repo\week06\guessing_game.py(15)guessing_game()
-> guess = guess.strip() # 去除多余空白字符
(Pdb) l
10
11         while True:
12             n += 1
13             # 获取玩家输入
14             guess = input(f"(第 {n} 次尝试) 请输入你猜的数字（输入整数，或者输入 q 回车退出）：")
15 ->             guess = guess.strip() # 去除多余空白字符
16
17             if guess == "q":
18                 break
19
20             try:
(Pdb) p guess
'35'
(Pdb) p 'abc'.strip()
'abc'
(Pdb)
```

```
MINGW64/c/Users/liwanying x + v
(Pdb) import wat
(Pdb) wat / str.strip

value: <method 'strip' of 'str' objects>
type: method_descriptor
signature: def strip(self, chars=None, /)
"""
Return a copy of the string with leading and trailing whitespace removed.

If chars is given and not None, remove characters in chars instead.
"""

(Pdb) l .
10
11     while True:
12         n += 1
13         # 获取玩家输入
14         guess = input(f"第 {n} 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): ")
15     ->         guess = guess.strip() # 去除多余空白字符
16
17         if guess == "q":
18             break
19
20     try:
(Pdb) n
> c:\users\liwanying\repo\week06\guessing_game.py(17)guessing_game()
-> if guess == "q":
(Pdb) p guess
'35'
(Pdb) █
```

```
MINGW64/c/Users/liwanying x + v
> c:\users\liwanying\repo\week06\guessing_game.py(11)guessing_game()
-> while True:
(Pdb)
> c:\users\liwanying\repo\week06\guessing_game.py(12)guessing_game()
-> n += 1
(Pdb)
> c:\users\liwanying\repo\week06\guessing_game.py(14)guessing_game()
-> guess = input(f"第 {n} 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): ")
(Pdb)
(第 1 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): q
> c:\users\liwanying\repo\week06\guessing_game.py(15)guessing_game()
-> guess = guess.strip() # 去除多余空白字符
(Pdb) n
> c:\users\liwanying\repo\week06\guessing_game.py(17)guessing_game()
-> if guess == "q":
(Pdb) l
12         n += 1
13         # 获取玩家输入
14         guess = input(f"第 {n} 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): ")
15         guess = guess.strip() # 去除多余空白字符
16     ->         if guess == "q":
17                 break
18
19         try:
20             guess = int(guess)
21         except ValueError:
22
(Pdb) p guess
'q'
(Pdb) █
```

```
environment.yml U  guessing_game.py U X
MINGW64:/c/Users/liwanying/  MINGW64:/c/Users/liwanying  +  v
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~
$ cd repo/week06
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ conda activate week06
(week06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): a
输入无效 🚫，请输入一个整数。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): bb
输入无效 🚫，请输入一个整数。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 30
猜的数字太小了，再试试。
(第 4 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): q
游戏结束，再见 🌟
(week06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 115
输入无效 🚫，输入值应该在 1~100 之间。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 80
猜的数字太大了，再试试。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出):
```

```
environment.yml U  guessing_game.py U X
MINGW64:/c/Users/liwanying/  MINGW64:/c/Users/liwanying  +  v
输入无效 🚫，请输入一个整数。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): bb
输入无效 🚫，请输入一个整数。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 30
猜的数字太小了，再试试。
(第 4 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): q
游戏结束，再见 🌟
(week06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 115
输入无效 🚫，输入值应该在 1~100 之间。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 80
猜的数字太大了，再试试。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): q
游戏结束，再见 🌟
(week06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 35
猜的数字太大了，再试试。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 28
猜的数字太大了，再试试。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 13
猜的数字太小了，再试试。
(第 4 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 15
恭喜你 🎉，猜对了！
游戏结束，再见 🌟
(week06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
environment.yml U  guessing_game.py U  fi
flow_controls.py
1 fruits = ['apple','banana','cherry']
2 for fruit in fruits:
3     print(fruit)

猜的数字太大了，再试试ㄥ。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 13
猜的数字太小了，再试试ㄥ。
(第 4 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 15
恭喜你 🎉，猜对了！
游戏结束，再见 🙋。
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ q
bash: q: command not found
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 50
猜的数字太大了，再试试ㄥ。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 30
猜的数字太小了，再试试ㄥ。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 40
猜的数字太大了，再试试ㄥ。
(第 4 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 35
猜的数字太大了，再试试ㄥ。
(第 5 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 33
恭喜你 🎉，猜对了！
游戏结束，再见 🙋。
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple
banana
cherry
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
environment.yml U  guessing_game.py U  fi
flow_controls.py
1 fruits = ['apple','banana','cherry']
2 for fruit in fruits:
3     fruit = fruit + ", ok"
4     print(fruit)

游戏结束，再见 🙋。
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ q
bash: q: command not found
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python guessing_game.py
欢迎来到猜数字游戏！我已经想好了一个 1 到 100 之间的数字，你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 50
猜的数字太大了，再试试ㄥ。
(第 2 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 30
猜的数字太小了，再试试ㄥ。
(第 3 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 40
猜的数字太大了，再试试ㄥ。
(第 4 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 35
猜的数字太大了，再试试ㄥ。
(第 5 次尝试) 请输入你猜的数字 (输入整数，或者输入 q 回车退出): 33
恭喜你 🎉，猜对了！
游戏结束，再见 🙋。
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple
banana
cherry
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
(Mweek06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
environment.yml U  guessing_game.py U  week06

flow_controls.py
1 fruits = ['apple','banana','cherry']
2 for fruit in fruits:
3     fruit += ", ok"
4     print(fruit)

$ python guessing_game.py
欢迎来到猜数字游戏! 我已经想好了一个 1 到 100 之间的数字, 你可以开始猜啦。
(第 1 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): 50
猜的数字太大了, 再试试。
(第 2 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): 30
猜的数字太小了, 再试试。
(第 3 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): 40
猜的数字太大了, 再试试。
(第 4 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): 35
猜的数字太大了, 再试试。
(第 5 次尝试) 请输入你猜的数字 (输入整数, 或者输入 q 回车退出): 33
恭喜你 🎉, 猜对了!
游戏结束, 再见 📢。
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple
banana
cherry
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
environment.yml U  guessing_game.py U  week06

flow_controls.py
1 fruits = ['apple','banana','cherry']
2 for fruit in fruits:
3     fruit += ", ok"
4     print(fruit)
5
6 message = "Hello"
7 for char in message:
8     print(char)

(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple
banana
cherry
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
H
e
l
l
o
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
6 message = "Hello"
7 for char in message:
8     print(char)
9
10 for i in range(5):
11     print(i)

(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
H
e
l
l
o
0
1
2
3
4
(MINGW64) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
7     for char in message:
8         print(char)
9
10    for i in range(5):
11        print(i)
12
13    person = {"name": "John", "age": 30, "city":
14              "New York"}
15    for key, value in person.items():
16        print(f"{key}: {value}")
17
18    person = {"name": "John", "age": 30, "city":
19              "New York"}
20    for key in person.keys():
21        print(f"{key}: {value}")
22
23    person = {"name": "John", "age": 30, "city":
24              "New York"}
25    for value in person.values():
26        print(value)
```

```
(week06) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
H
e
l
l
o
0
1
2
3
4
name: John
age: 30
city: New York
(week06) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$
```

```
1
2
3
4
name: John
age: 30
city: New York
(week06) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
H
e
l
l
o
0
1
2
3
4
name: John
age: 30
city: New York
name: New York
age: New York
city: New York
(week06) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$
```

```
File "C:\Users\liwanying\repo\week06\flow_controls.py", line 22, in <module>
    for key, value in person.values():
    ^^^^^^^^^^^^^
ValueError: too many values to unpack (expected 2)
(week06) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
H
e
l
l
o
0
1
2
3
4
name: John
age: 30
city: New York
name: New York
age: New York
city: New York
John
30
New York
(week06) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$
```

```
← → week06
! environment.yml U  guessing_game.py U  flow_c
flow_controls.py
1 fruits = ['apple', 'banana', 'cherry']
2 for fruit in fruits:
3     fruit += ", ok"
4     print(fruit)
5
6 message = "Hello"
7 for char in message:
8     print(char)
9
10 for i in range(5):
11     print(i)
12
13 person = {"name": "John", "age": 30, "city": "New York"}
14 for key, value in person.items():
15     print(f"{key}: {value}")
16
17 person = {"name": "John", "age": 30, "city": "New York"}
18 for key in person.keys():
19     print(f"{key}: {value}")
20
21 person = {"name": "John", "age": 30, "city": "New York"}
22 for value in person.values():
23     print(value)
24
25 count = 0
26 while count < 5:
27     print(count)
28     count = count + 1

$ python flow_controls.py
apple, ok
banana, ok
cherry, ok
Hello
H
e
l
l
o
0
1
2
3
4
name: John
age: 30
city: New York
name: New York
age: New York
city: New York
John
30
New York
0
1
2
3
4
(week06) liwanying@LAPTOP-4E3DBR81 MINGW64 ~/repo/week06 (main)
$
```

```
→ week06
! environment.yml U  guessing_game.py U  flow_c
flow_controls.py
9
10 for i in range(5):
11     print(i)
12
13 person = {"name": "John", "age": 30, "city": "New York"}
14 for key, value in person.items():
15     print(f"{key}: {value}")
16
17 person = {"name": "John", "age": 30, "city": "New York"}
18 for key in person.keys():
19     print(f"{key}: {value}")
20
21 person = {"name": "John", "age": 30, "city": "New York"}
22 for value in person.values():
23     print(value)
24
25 count = 0
26 while count < 5:
27     print(count)
28     count = count + 1
29
30 numbers = [1, 2, 3, 4, 5]
31 breakpoint()
32 while numbers:
33     print(numbers.pop())

apple, ok
banana, ok
cherry, ok
Hello
H
e
l
l
o
0
1
2
3
4
name: John
age: 30
city: New York
name: New York
age: New York
city: New York
John
30
New York
0
1
2
3
4
> c:\users\liwanying\repo\week06\flow_controls.py(32)<module>()
-> while numbers:
(Pdb)
```



```
← → week06
! environment.yml U  guessing_game.py U  flow_controls.py U
flow_controls.py
9
10 for i in range(5):
11     print(i)
12
13 person = {"name": "John", "age": 30, "city": "New York"}
14 for key, value in person.items():
15     print(f"{key}: {value}")
16
17 person = {"name": "John", "age": 30, "city": "New York"}
18 for key in person.keys():
19     print(f"{key}: {value}")
20
21 person = {"name": "John", "age": 30, "city": "New York"}
22 for value in person.values():
23     print(value)
24
25 count = 0
26 while count < 5:
27     print(count)
28     count = count + 1
29
30 numbers = [1, 2, 3, 4, 5]
31 breakpoint()
32 while numbers:
33     print(numbers.pop())

cherry, ok
H
e
l
l
o
0
1
2
3
4
name: John
age: 30
city: New York
name: New York
age: New York
city: New York
John
30
New York
0
1
2
3
4
> c:\users\liwanying\repo\week06\flow_controls.py(32)<module>()
-> while numbers:
(Pdb) p numbers
[1, 2, 3, 4, 5]
(Pdb)
```

```
→ week06
! environment.yml U  guessing_game.py U  flow_controls.py U
flow_controls.py
9
10 for i in range(5):
11     print(i)
12
13 person = {"name": "John", "age": 30, "city": "New York"}
14 for key, value in person.items():
15     print(f"{key}: {value}")
16
17 person = {"name": "John", "age": 30, "city": "New York"}
18 for key in person.keys():
19     print(f"{key}: {value}")
20
21 person = {"name": "John", "age": 30, "city": "New York"}
22 for value in person.values():
23     print(value)
24
25 count = 0
26 while count < 5:
27     print(count)
28     count = count + 1
29
30 numbers = [1, 2, 3, 4, 5]
31 breakpoint()
32 while numbers:
33     print(numbers.pop())

MINGW64:/c:/Users/liwanying/  x  MINGW64:/c:/Users/liwanying  x  +  v
True
(Pdb) n
> c:\users\liwanying\repo\week06\flow_controls.py(33)<module>()
-> print(numbers.pop())
(Pdb) l
28         count = count + 1
29
30     numbers = [1, 2, 3, 4, 5]
31     breakpoint()
32     while numbers:
33         -> print(numbers.pop())
[EOF]
(Pdb) p numbers
[1, 2, 3, 4, 5]
(Pdb) n
5
> c:\users\liwanying\repo\week06\flow_controls.py(32)<module>()
-> while numbers:
(Pdb) p numbers
[1, 2, 3, 4]
(Pdb) n
> c:\users\liwanying\repo\week06\flow_controls.py(33)<module>()
-> print(numbers.pop())
(Pdb) n
4
> c:\users\liwanying\repo\week06\flow_controls.py(32)<module>()
-> while numbers:
(Pdb) p numbers
[1, 2, 3]
(Pdb)
```

```
environment.yml U  guessing_game.py U
myjob.py
1 import mylib
2
3 breakpoint()

(Pdb) l
27         print(count)
28         count = count + 1
29
30     numbers = [1, 2, 3, 4, 5]
31     breakpoint()
32     >> while numbers:
33         print(numbers.pop())
[EOF]
(Pdb) n
(week06) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
--Return--
> c:\users\liwanying\repo\week06\myjob.py(3)<module>()->None
-> breakpoint()
(Pdb) l
1         import mylib
2
3     >> breakpoint()
[EOF]
(Pdb) import wat
(Pdb) wat / mylib

value: <module 'mylib' from 'C:\\Users\\liwanying\\repo\\week06\\mylib.py'>
type: module

Public attributes:
  def func1()

(Pdb) █
```

```
environment.yml U  guessing_game.py U
mylib.py
1 def func1():
2     x = 50
3     y = x**0.5 - 7
4     print(y)
5

(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~
$ cd
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~
$ cd week06
bash: cd: week06: No such file or directory
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~
$ pwd
/c/Users/liwanying
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~
$ cd week06
bash: cd: week06: No such file or directory
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~
$ cd repo
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo
$ cd week06
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ █
```

```
environment.yml U  guessing_game.py U
myjob.py
1 import mylib
2
3 y = mylib.func1()
4 breakpoint()
5 print(y)

Traceback (most recent call last):
  File "C:\Users\liwanying\repo\week06\myjob.py", line 4, in <module>
    print(y)
    ^
NameError: name 'y' is not defined
(base) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
(base) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
(base) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
> c:\users\liwanying\repo\week06\myjob.py(5)<module>()
-> print(y)
(Pdb) l
1      import mylib
2
3      y = mylib.func1()
4      breakpoint()
5  -> print(y)
[EOF]
(Pdb) p y
None
(Pdb) p type(y)
<class 'NoneType'>
(Pdb)
```

```
environment.yml U  guessing_game.py U
myjob.py
1 import mylib
2
3 y = mylib.func1()
4 print(y)
5
6 try:
7     y = mylib.func1(0)
8 except TypeError as e:
9     print(e)

(Pdb) q
Traceback (most recent call last):
  File "C:\Users\liwanying\repo\week06\myjob.py", line 5, in <module>
    ^
  File "D:\XXX\Lib\bdb.py", line 90, in trace_dispatch
    return self.dispatch_line(frame)
           ^^^^^^^^^^^^^^^^^^^^^^^^^
  File "D:\XXX\Lib\bdb.py", line 115, in dispatch_line
    if self.quitting: raise BdbQuit
           ^^^^^^^^^
bdb.BdbQuit
(base) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
Traceback (most recent call last):
  File "C:\Users\liwanying\repo\week06\myjob.py", line 6, in <module>
    y = mylib.func1(0)
    ^
TypeError: func1() takes 0 positional arguments but 1 was given
(base) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
(base) liwanying@LAPTOP-4E3D8RB1 MINGW64 ~/repo/week06 (main)
$
```

```
→ week06
! environment.yml U  + guessing_game.py U
+ myjob.py
1 import mylib
2
3 y = mylib.func1()
4 print(y)
5
6 try:
7     y = mylib.func1(0)
8 except TypeError as e:
9     print(e)
10
11 y = mylib.func2()
12 print(y)
13
14 y = mylib.func3(45)
15 print(y)

$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
Traceback (most recent call last):
  File "C:\Users\liwanying\repo\week06\myjob.py", line 14, in <module>
    y = mylib.func3(
    ^^^^^^^^^^^^^^^
TypeError: func3() missing 1 required positional argument: 'x'
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
← → week06
... ! environment.yml U  + guessing_game.py U  +
+ myjob.py
1 import mylib
2
3 y = mylib.func1()
4 print(y)
5
6 try:
7     y = mylib.func1(0)
8 except TypeError as e:
9     print(e)
10
11 y = mylib.func2()
12 print(y)
13
14 y = mylib.func3(45)
15 print(y)
16
17 y = mylib.func3(47)
18 print(y)
19
20 try:
21     y = mylib.func3()
22 except TypeError as e:
23     print(e)

(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
! environment.yml U x guessing_game.py U MINGW64/c/Users/liwanying x + v
myjob.py
1 import mylib
2
3 y = mylib.func1()
4 print(y)
5
6 try:
7     y = mylib.func1(0)
8 except TypeError as e:
9     print(e)
10
11 y = mylib.func2()
12 print(y)
13
14 y = mylib.func3(45)
15 print(y)
16
17 y = mylib.func3(47)
18 print(y)
19
20 try:
21     y = mylib.func3()
22 except TypeError as e:
23     print(e)
24
25 try:
26     mylib.func3(y=47)
27 except TypeError as e:
28     print(e)
```

```
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
! environment.yml U guessing_game.py U 0.0710678118654755
myjob.py
7 y = mylib.func1(0)
8 except TypeError as e:
9     print(e)
10
11 y = mylib.func2()
12 print(y)
13
14 y = mylib.func3(45)
15 print(y)
16
17 y = mylib.func3(47)
18 print(y)
19
20 try:
21     y = mylib.func3()
22 except TypeError as e:
23     print(e)
24
25 try:
26     mylib.func3(y=47)
27 except TypeError as e:
28     print(e)
29
30 y = mylib.func4(48)
31 print(y)
32
33 y = mylib.func4(x=49)
34 print(y)
```

```
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
Traceback (most recent call last):
  File "C:\Users\liwanying\repo\week06\myjob.py", line 30, in <module>
    y = mylib.func4(48)
    ^^^^^^^^^^^^^^^
AttributeError: module 'mylib' has no attribute 'func4'. Did you mean:
unc1'?
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
← → week06
! environment.yml U  guessing_game.py U ×
myjob.py
15 print(y)
16
17 y = mylib.func3(47)
18 print(y)
19
20 try:
21     y = mylib.func3()
22 except TypeError as e:
23     print(e)
24
25 try:
26     mylib.func3(y=47)
27 except TypeError as e:
28     print(e)
29
30 y = mylib.func4(48)
31 print(y)
32
33 y = mylib.func4(x=49)
34 print(y)
35
36 print(mylib.calculate(10, 5, "add"))

unc1'?
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
15
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06
$
```

```
→ week06
! environment.yml U  guessing_game.py U  flow_controls.py
myjob.py
15 print(y)
16
17 y = mylib.func3(47)
18 print(y)
19
20 try:
21     y = mylib.func3()
22 except TypeError as e:
23     print(e)
24
25 try:
26     mylib.func3(y=47)
27 except TypeError as e:
28     print(e)
29
30 y = mylib.func4(48)
31 print(y)
32
33 y = mylib.func4(x=49)
34 print(y)
35
36 print(mylib.calculate(10, 5, "add"))
37 print(mylib.calculate(operation="add", b=5, a=10))
38

$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
15
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
15
15
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06
$
```

```
→ week06
! environment.yml U  guessing_game.py U
myjob.py
24
25 try:
26     mylib.func3(y=47)
27 except TypeError as e:
28     print(e)
29
30 y = mylib.func4(48)
31 print(y)
32
33 y = mylib.func4(x=49)
34 print(y)
35
36 print(mylib.calculate(10, 5, "add"))
37 print(mylib.calculate(operation="add", b=
38 print(mylib.calculate(5, 8, operation="su
39
40 try:
41     print(mylib.func6(a=10, b=5))
42 except TypeError as e:
43     print(e)
44
45 try:
46     print(mylib.func7(10, 5, "subtract"))
47 except TypeError as e:
48     print(e)
49
50 print(mylib.func8(4, 8, 18))
51
```

```
func6() got some positional-only arguments passed as keyword arg
a'
Traceback (most recent call last):
  File "C:\Users\liwanying\repo\week06\myjob.py", line 46, in <
    print(mylib.func7(10, 5, "subtract"))
    ^^^^^^^^^^^^^^^^^
AttributeError: module 'mylib' has no attribute 'func7'. Did you
unc1'?
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
15
15
-3
func6() got some positional-only arguments passed as keyword arg
a'
func7() takes 2 positional arguments but 3 were given
30
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
→ week06
! environment.yml U  guessing_game.py U
myjob.py
24
25 try:
26     mylib.func3(y=47)
27 except TypeError as e:
28     print(e)
29
30 y = mylib.func4(48)
31 print(y)
32
33 y = mylib.func4(x=49)
34 print(y)
35
36 print(mylib.calculate(10, 5, "add"))
37 print(mylib.calculate(operation="add", b=
38 print(mylib.calculate(5, 8, operation="su
39
40 try:
41     print(mylib.func6(a=10, b=5))
42 except TypeError as e:
43     print(e)
44
45 try:
46     print(mylib.func7(10, 5, "subtract"))
47 except TypeError as e:
48     print(e)
49
50 print(mylib.func8(4, 8, 12))
51
```

```
43 def func8(*numbers):
44     breakpoint()
45     total = 0
46     for num in numbers:
47         total = total + num
48     return total
[EOF]
(Pdb) p numbers
(4, 8)
(Pdb) p type(numbers)
<class 'tuple'>
(Pdb) p *numbers
*** SyntaxError: invalid syntax
(Pdb) q
Traceback (most recent call last):
  File "C:\Users\liwanying\repo\week06\myjob.py", line 50
    print(mylib.func8(4, 8))
    ^^^^^^^^^^^^^^^^^^^^^^
  File "C:\Users\liwanying\repo\week06\mylib.py", line 45
    total = 0
    ^
  File "D:\XXX\Lib\bdb.py", line 90, in trace_dispatch
    return self.dispatch_line(frame)
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
  File "D:\XXX\Lib\bdb.py", line 115, in dispatch_line
    if self.quitting: raise BdbQuit
    ^^^^^^^^^^^^^^^^^
bdb.BdbQuit
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (ma
$ python myjob.py
```

```
File "C:\Users\liwanying\repo\week06\mylib.py", line 50, in func9
for key, value in user.items():
^^^^^^^^^^^^
AttributeError: 'dict' object has no attribute 'items'. Did you me
tems'?
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
15
15
-3
func6() got some positional-only arguments passed as keyword argume
a'
func7() takes 2 positional arguments but 3 were given
24
name: Alice
age: 25
city: New York
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

```
! environment.yml U  guessing_game.py U
mylib.py
20 def calculate(a, b, operation="add"):
25     else:
27
28 def func6(a, /, b, operation="add"):
29     if operation == "add":
30         return a + b
31     elif operation == "subtract":
32         return a - b
33     else:
34         return None
35
36 def func7(a, /, b, *, operation="add"):
37     if operation == "add":
38         return a + b
39     elif operation == "subtract":
40         return a - b
41     else:
42         return None
43 def func8(*numbers):
44     total = 0
45     for num in numbers:
46         total = total + num
47     return total
48
49 def func9(**user):
50     for key, value in user.items():
51         print(f"{key}: {value}")
```

```
AttributeError: module 'mylib' has no a
func1'?
(base) liwanying@LAPTOP-4E3DBRB1 MINGW6
$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments bu
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional a
func3() got an unexpected keyword argum
-0.07179676972449123
0.0
15
15
-3
func6() got some positional-only argume
a'
func7() takes 2 positional arguments bu
24
name: Alice
age: 25
city: New York
位置实参 arg1: 10
位置实参 arg2: 20
命名实参 named_arg: default
(base) liwanying@LAPTOP-4E3DBRB1 MINGW6
$
```

```
... ! environment.yml U  guessing_game.py U
mylib.py
28 def func6(a, /, b, operation="add"):
31     elif operation == "subtract":
32         return a - b
33     else:
34         return None
35
36 def func7(a, /, b, *, operation="add"):
37     if operation == "add":
38         return a + b
39     elif operation == "subtract":
40         return a - b
41     else:
42         return None
43 def func8(*numbers):
44     total = 0
45     for num in numbers:
46         total = total + num
47     return total
48
49 def func9(**user):
50     for key, value in user.items():
51         print(f"{key}: {value}")
52
53 def func10(arg1, arg2, named_arg="default
54     print(f"位置实参 arg1: {arg1}")
55     print(f"位置实参 arg2: {arg2}")
56     print(f"命名实参 named_arg: {named_arg}")
```



```
← → week06
... ! environment.yml U guessing_game.py U
mylib.py
28 def func6(a, /, b, operation="add"):
35
36 def func7(a, /, b, *, operation="add"):
37     if operation == "add":
38         return a + b
39     elif operation == "subtract":
40         return a - b
41     else:
42         return None
43 def func8(*numbers):
44     total = 0
45     for num in numbers:
46         total = total + num
47     return total
48
49 def func9(**user):
50     for key, value in user.items():
51         print(f"{key}: {value}")
52
53 def func10(arg1, arg2, named_arg="default")
54     print(f"位置实参 arg1: {arg1}")
55     print(f"位置实参 arg2: {arg2}")
56     print(f"命名实参 named_arg: {named_arg}")
57
58 def func12(arg1: str, arg2: int, named_arg: str)
59     "多个参数的调用例子"
60     print(f"位置实参 arg1: {arg1}")
61     print(f"位置实参 arg2: {arg2}")
62     print(f"命名实参 named_arg: {named_arg}")

$ python myjob.py
0.0710678118654755
None
func1() takes 0 positional arguments but 1 was given
1.3666002653407556
1.3666002653407556
-0.2917960675006306
-0.1443453995989561
func3() missing 1 required positional argument: 'x'
func3() got an unexpected keyword argument 'y'
-0.07179676972449123
0.0
15
15
-3
func6() got some positional-only arguments passed as keyword arguments: 'a'
func7() takes 2 positional arguments but 3 were given
24
name: Alice
age: 25
city: New York
位置实参 arg1: 10
位置实参 arg2: 20
命名实参 named_arg: default
位置实参 arg1: 7
位置实参 arg2: 8
命名实参 named_arg: 9
(base) liwanying@LAPTOP-4E3DBRB1 MINGW64 ~/repo/week06 (main)
$
```

