```python
# Demonstrates import and random.choice

import random

coin = random.choice(["heads", "tails"])
print(coin)
```

```python
# Demonstrates from

from random import choice

coin = choice(["heads", "tails"])
print(coin)
```

```python
# Demonstrates randint

import random

number = random.randint(1, 10)
print(number)
```

```
1   # Demonstrates shuffle
2
3   import random
4
5   cards = ["jack", "queen", "king"]
6   random.shuffle(cards)
7   for card in cards:
8       print(card)
```

```
1    # Demonstrates statistics
2
3    import statistics
4
5    print(statistics.mean([100, 90]))
```

```
1   # Demonstrates sys.argv
2
3   import sys
4
5   print("hello, my name is", sys.argv[1])
```

```python
# Demonstrates IndexError

import sys

try:
    print("hello, my name is", sys.argv[1])
except IndexError:
    print("Too few arguments")
```

```python
# Adds error checking

import sys

if len(sys.argv) < 2:
    print("Too few arguments")
elif len(sys.argv) > 2:
    print("Too many arguments")
else:
    print("hello, my name is", sys.argv[1])
```

```python
# Demonstrates sys.exit

import sys

if len(sys.argv) < 2:
    sys.exit("Too few arguments")
elif len(sys.argv) > 2:
    sys.exit("Too many arguments")

print("hello, my name is", sys.argv[1])
```

```python
# Demonstrates list slice

import sys

if len(sys.argv) < 2:
    sys.exit("Too few arguments")

for arg in sys.argv[1:]:
    print("hello, my name is", arg)
```

```python
# Demonstrates pip-installed package

import cowsay
import sys

if len(sys.argv) == 2:
    cowsay.cow("hello, " + sys.argv[1])
```

```
1  # Demonstrates a t-rex
2
3  import cowsay
4  import sys
5
6  if len(sys.argv) == 2:
7      cowsay.trex("hello, " + sys.argv[1])
```

```
1   # Demonstrates requests
2
3   import sys
4   import requests
5
6   if len(sys.argv) != 2:
7       sys.exit()
8
9   response = requests.get(
10      "https://itunes.apple.com/search?entity=song&limit=1&term=" + sys.argv[1]
11  )
12  print(response.json())
```

```python
# Demonstrates json

import json
import sys
import requests

if len(sys.argv) != 2:
    sys.exit()

response = requests.get(
    "https://itunes.apple.com/search?entity=song&limit=1&term=" + sys.argv[1]
)
print(json.dumps(response.json(), indent=2))
```

```python
# Demonstrates iterating over JSON

import json
import sys
import requests

if len(sys.argv) != 2:
    sys.exit()

response = requests.get(
    "https://itunes.apple.com/search?entity=song&term=" + sys.argv[1]
)
o = response.json()
for result in o["results"]:
    print(result["trackName"])
```

```python
def hello(name):
    print(f"hello, {name}")


def goodbye(name):
    print(f"goodbye, {name}")
```

```python
# Demonstrates own module

import sys

from sayings0 import hello

if len(sys.argv) == 2:
    hello(sys.argv[1])
```

```python
# Doesn't check __name__


def main():
    hello("world")
    goodbye("world")


def hello(name):
    print(f"hello, {name}")


def goodbye(name):
    print(f"goodbye, {name}")


main()
```

```python
1    # Demonstrates own module
2
3    import sys
4
5    from sayings1 import hello
6
7    if len(sys.argv) == 2:
8        hello(sys.argv[1])
```

```python
1   # Check __name__
2
3
4   def main():
5       hello("world")
6       goodbye("world")
7
8
9   def hello(name):
10      print(f"hello, {name}")
11
12
13  def goodbye(name):
14      print(f"goodbye, {name}")
15
16
17  if __name__ == "__main__":
18      main()
```

```python
# Demonstrates own module

import sys

from sayings2 import hello

if len(sys.argv) == 2:
    hello(sys.argv[1])
```

```python
# Demonstrates own module

import sys

from sayings2 import goodbye

if len(sys.argv) == 2:
    goodbye(sys.argv[1])
```