#1.使用Try

while True:

try:

x = int(input("請輸入一整數為被除數："))

y = int(input("請輸入一整數為除數："))

if y == 0:

print("輸入除數不可為 0!")

else:

print("商=", x / y)

print("餘數=", x % y)

except ValueError:

print("輸入資料型別有誤！")

except EOFError:

print("發生錯誤！")

end = input("結束計算？（Y/y）")

if end.lower() == "y":

break

#2.計算時間

import time

input("按Enter鍵，開始計時。 ")

start\_time = time.time()

input("按Enter鍵，結束計時。 ")

end\_time = time.time()

elapsed\_time = end\_time - start\_time

print(f"經過時間為： {elapsed\_time:.15f} 秒")

#3.取得現在的時間

from datetime import datetime

now = datetime.now()

hour = now.hour

minute = now.minute

second = now.second

am\_pm = 'AM'

if hour > 12:

hour -= 12

am\_pm = '下午'

elif hour == 12:

am\_pm = '下午'

print(f"現在時刻：{am\_pm} {hour} 時 {minute} 分 {second} 秒")

#4.菱形

def diamond(n):

if n < 3 or n % 2 == 0:

return

for i in range(n):

num\_spaces = abs(n // 2 - i)

num\_stars = n - 2 \* num\_spaces

print(" " \* num\_spaces + "\*" \* num\_stars)

n = int(input("請輸入一個大於等於3的奇數："))

diamond(n)

#5.十八仔

import random

def play\_game(dice):

result = ""

points = sum(dice)

if points == 10:

result = "Sip-Pat（10點）！"

elif all(x == dice[0] for x in dice):

result = "一色！"

else:

result = f"{points}點。"

return result

while True:

dice = [random.randint(1, 6) for \_ in range(4)]

result = play\_game(dice)

print(f"擲出：{dice}")

print(f"結果：{result}")

print("輸人Q或q結束；按Enter重來。")

user\_input = input()

if user\_input.upper() == 'Q':

break

#6.撲克牌花色整理

import random

import collections

deck = [('黑桃', i) for i in range(1, 14)] + [('紅心', i) for i in range(1, 14)] + [('方塊', i) for i in range(1, 14)] + [('梅花', i) for i in range(1, 14)]

hand = random.sample(deck, 5)

suit\_dict = collections.defaultdict(list)

for card in hand:

suit\_dict[card[0]].append(card[1])

print("發牌:", hand)

print("整理:", dict(suit\_dict))

#7.隨機數抽取

import random

n = 12

random\_numbers = [random.randint(1, 10) for \_ in range(n)]

numbers = set(random\_numbers)

print("產生的隨機數如下：")

print(random\_numbers)

print("其中的數字為：")

print(numbers)