

Python Beginner Homework 6

In the following multiple choice questions, please circle the correct output of Python code.

1. `res=0`
`num=50`
`for i in range(2,num+1):`
`while num%i==0:`
`res=res+i`
`num=num//i`
`print(res)`

Handwritten calculation: $50 \div 2 = 25$, $25 \div 5 = 5$, $5 \div 5 = 1$. The factors are 2, 5, and 5, which sum to 12.

(a) 10 (b) 12 (c) 14 (d) 16 (e) 18

2. `res=0`
`num=12345`
`while num>0:`
`res=res+num%10`
`num=num//10`
`print(res)`

(a) 11 (b) 12 (c) 13 (d) 14 (e) 15

3. `num=12345`
`while num>0:`
`print(num%100)`
`num=num//10`

(a) 1 2 3 4 5 (b) 12 23 34 45 (c) 45 34 23 12 1 (d) 34 23 12 1 (e) 45

4. `num=12345`
`while num>0:`
`num=num//10`
`print(num%100)`

(a) 34 23 12 1 0 (b) 12 23 34 45 (c) 45 34 23 12 1 (d) 34 23 12 1 (e) 45

5. `num=11`
`while num>0:`
`print(num%2)`
`num=num//2`

(a) 1 0 1 1 (b) 1 1 0 1 (c) 0 0 1 0 (d) 1 1 1 (e) 0 0 0

Coding question 1: Count how many factor 2 in number 336. Answer should be 4 since $336=2 \times 2 \times 2 \times 2 \times 3 \times 7$.

Coding question 2: Count how many even digit in number 32546845. Answer should be 5 since digit 2, 4, 6, 8, 4 are even.

Coding question 3: Count how many digit 5 between number 1 and number 100. Answer should be 20 (5, 15, 25..., 50, 51, 51...59, 65, 75 ... 95).

Coding question 4: Calculate sum of all digits between number 1 and number 100 (inclusive). Answer should be 901 ($1+2+3+4+5+6+7+8+9+1+0+1+1+1+2+1+3+...+9+8+9+9+1+0+0$).

