

./Programming Fundamentals using Python - Part 01/Assignment Set - 02/Assignment on iteration

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1: """
2: Write a python program to solve a classic ancient Chinese puzzle.
3:
4: We count 35 heads and 94 legs among the chickens and rabbits in a farm.
5: How many rabbits and how many chickens do we have?
6:
7: =====
8: | Sample Input      | Expected Output |
9: =====
10: | heads-150 legs-400 | 100 50          |
11: | heads-3 legs-11    | No solution     |
12: | heads-3 legs-12    | 0 3            |
13: | heads-5 legs-10    | 5 0            |
14: =====
15: """
16:
17:
18: def solve(heads, legs):
19:     error_msg = "No solution"
20:
21:     rabbit_count = (legs - (2 * heads))/2
22:     chicken_count = heads - rabbit_count
23:     if rabbit_count >= 0 and chicken_count >= 0 and rabbit_count == int(rabbit_count) and chicken_count == int(chicken_c
ount):
24:         print(int(chicken_count), int(rabbit_count))
25:     else:
26:         print(error_msg)
27:
28:
29: solve(38, 131)
```