Assume that a students founds only oyster mushrooms, b students found only maitake mushrooms, c students found only lion's mane mushrooms, d+g students found both oyster and maitake mushrooms, g+f students found both maitake and lion's mane mushrooms, g+e students found both oyster and lion's mane mushrooms and g students had found all three types of mushrooms, x students found nothing.

Then we could have equations:

a+b+c+d+e+f+g+x = 150

a+d+e+g = 100

b+d+g+f = 33

g+e+f+c = 23

d+g = 23

g+f = 12

g+e = 10

g = 2

After calculation we can get that a = 69, b =0, c = 3 and x = 37

1. 69 students found only oyster mushrooms.
2. No student found only maitake mushrooms.
3. 3 students found only lion's mane mushrooms.
4. 37 students found no mushrooms.