LAB REPORT 实验报告

Lab Title	Interactive Input and Formatted Output				Lab No.	02
Stud. Name		Major	Computer Science & Technology		Class	
Student ID			Date			

Lab description/objectives:

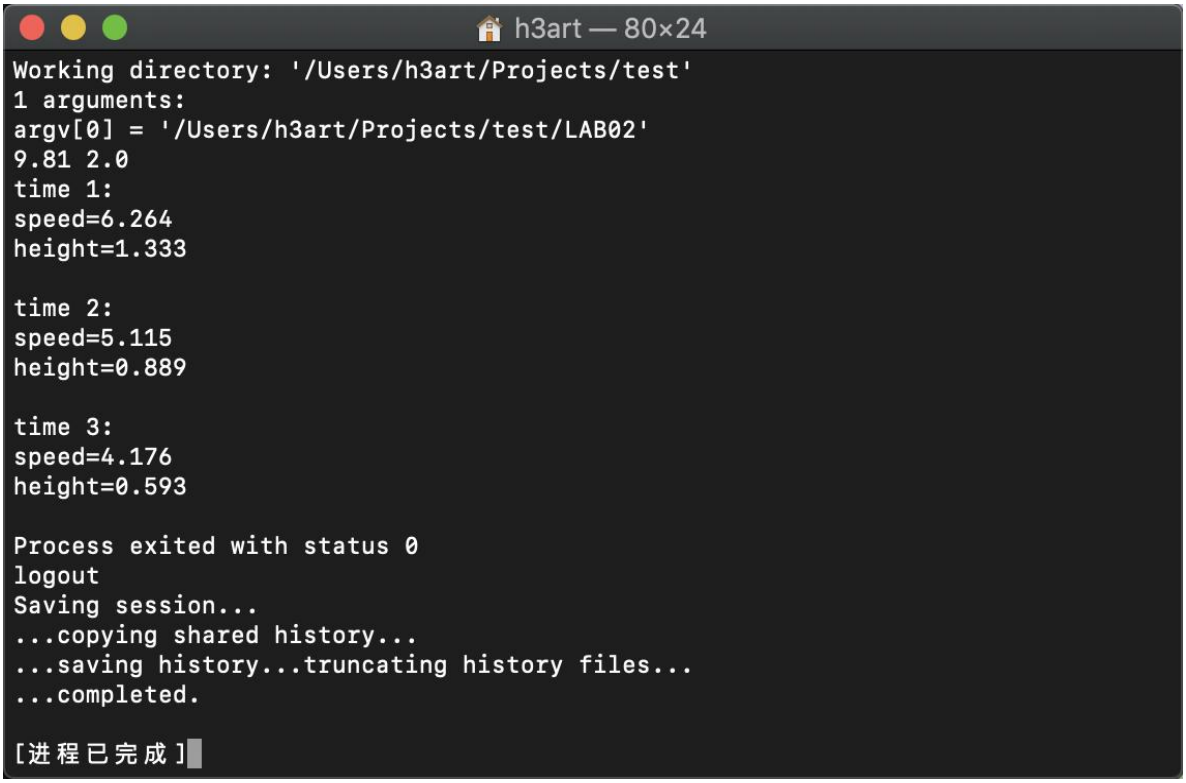
Test your program using an initial height of 2.0 meters.Run the program twice and compare the results for dropping the ball on Earth (g = 9.81 meters per sec^2) and on the moon (g = 1.67 meters per sec^2).

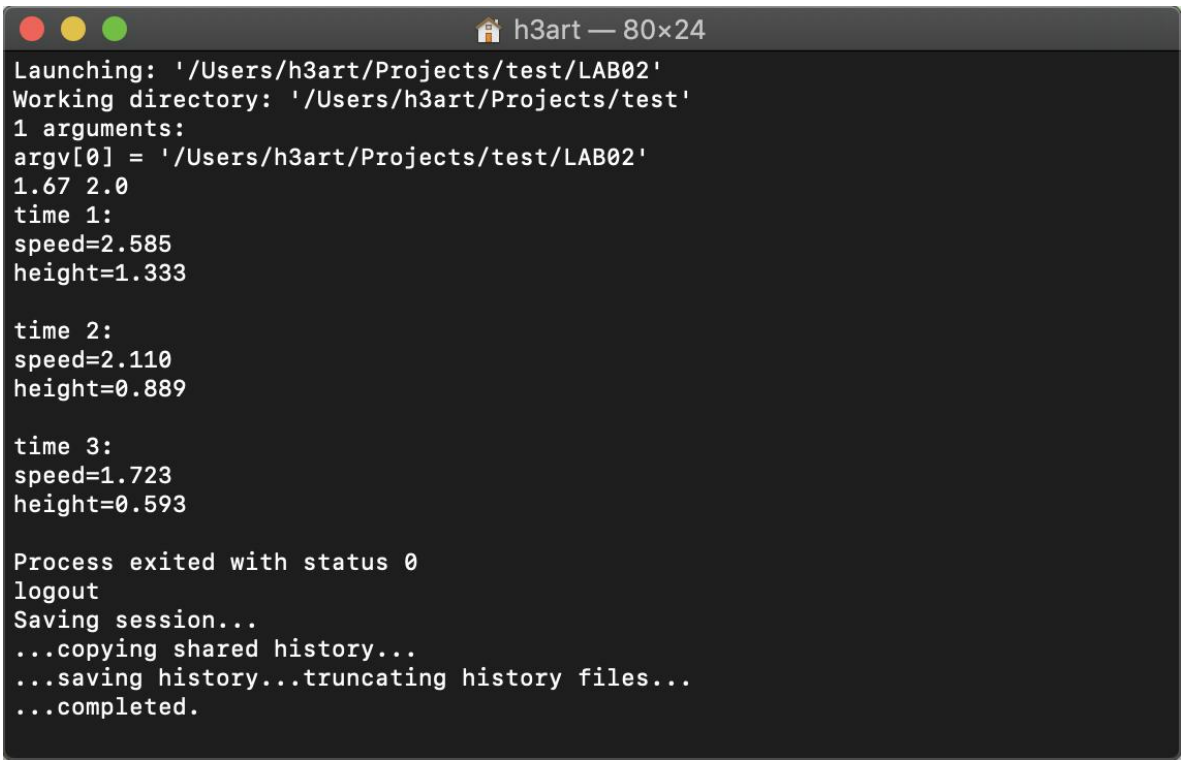
The values of g and initial height should be input from keyboard. Display the results with 3 decimal places.

Source code:

```
#include <math.h>
#include <stdio.h>
int main() {
    double g, height, speed;
    scanf("%lf%lf", &g, &height);
    for (int i = 0; i < 3; i++) {
        speed = sqrt(2 * g * height);
        height *= (2.0 / 3.0);
        printf("time %d:\nspeed=%.3lf\nheight=%.3lf\n\n", i + 1, speed, height);
    }
    return 0;
}
```

Program outputs:


h3art — 80×24
Working directory: '/Users/h3art/Projects/test'
1 arguments:
argv[0] = '/Users/h3art/Projects/test/LAB02'
9.81 2.0
time 1:
speed=6.264
height=1.333
time 2:
speed=5.115
height=0.889
time 3:
speed=4.176
height=0.593
Process exited with status 0
logout
Saving session...
...copying shared history...
...saving history...truncating history files...
...completed.
[进程已完成]


h3art — 80×24
Launching: '/Users/h3art/Projects/test/LAB02'
Working directory: '/Users/h3art/Projects/test'
1 arguments:
argv[0] = '/Users/h3art/Projects/test/LAB02'
1.67 2.0
time 1:
speed=2.585
height=1.333
time 2:
speed=2.110
height=0.889
time 3:
speed=1.723
height=0.593
Process exited with status 0
logout
Saving session...
...copying shared history...
...saving history...truncating history files...
...completed.

Discussion:

1. **Most difficult parts**

（What were the most difficult parts of your program to implement?）

2. **Bugs and/or Errors**

(List all the program bugs/errors you encountered and how you corrected them.)