1907040128-李涛

1 温度转换

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[])
{
    float F, C;
    scanf("%f", &F);
    C = 5.0/9.0 * (F - 32);
    printf("%.2f", C);

    return 0;
}
```

运行截图

```
aimer@aimer-PC:/media/aimer/PrivateData/git/LearningNotes$ cd "/media/aimer/PrivateData/git/L
mer/PrivateData/git/LearningNotes/Homework/2019-10-12/src/"12.温度转换
54
12.22aimer@aimer-PC:/media/aimer/PrivateData/git/LearningNotes/Homework/2019-10-12/src$
```

2 大小写字母转换

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[])
{
    char str, ret, x;
    int delta;
    delta = 'a' - 'A';
    scanf("%c", &str);
    ret = str + delta;
    x = ret + 1;
    printf("%c%c", ret, x);
    return 0;
}
```

运行截图

3 二进制转换

源代码

```c
#include <stdio.h>

#define SIZE 8

int main(int argc, char const *argv[])
{
    int num, i;
    scanf("%d", &num);
    unsigned mask = 1u<<(sizeof(unsigned) * 8 - 1);
    for (i = 0; mask ; mask >>= 1, i++) {
        if (i > ((sizeof(unsigned) * 8 - 1) - SIZE))
            printf("%d", (num & mask)?1:0);
    }
    printf("\n");
    return 0;
}
```

运行截图

4 矩形运算

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[])
{
    int x, y;
    int area;
    scanf("%d %d", &x, &y);
    area = x * y;
    printf("%d", area);
    return 0;
}
```

运行截图

5 平均值计算

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[])
{
    int x = 0;
    int sum = 0;
    int n = 0;
    int cnt = 0;
    double average = 0;

    for (n = 0; n < 3; n++) {
        scanf("%d", &x);
        sum += x;
    }

    average = sum / n;

    printf("%.2f", average);

    return 0;
}
```

运行截图

6 求和

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[]) {
    int num, ret = 0;
    for (int i = 0; i < 3; i++) {
        scanf("%d", &num);
        ret += num;
    }
    printf("%d", ret);
    return 0;
}
```

运行截图

7 球的计算

源代码

```c
#include <stdio.h>

#define PI 3.1415926

int main(int argc, char const *argv[])
{
    float r;
    scanf("%f", &r);
    double surfaceArea, volume;
    surfaceArea = 4 * PI * r * r;
    volume = 4.0/3.0 * PI * r * r * r;
    printf("%.2f %.2f", surfaceArea, volume);
    return 0;
}
```

运行截图

8 三角形计算

源代码

```c
#include <stdio.h>
#include <math.h>

int main(int argc, char const *argv[])
{
    float a, b, c;
    double p, area;
    scanf("%f", &a);
    scanf("%f", &b);
    scanf("%f", &c);
    p = (a + b + c) / 2.0;
    area = sqrt(p * (p - a) * (p - b) * (p - c));
    printf("%.2f", area);
    return 0;
}
```

运行截图

9 解方程

源代码

```c
#include <stdio.h>
#include <math.h>

int main(int argc, char const *argv[])
{
    double a, b, c;
    double x1, x2;
    scanf("%lf %lf %lf", &a, &b, &c);
    double delta;
    delta = b * b - 4 * a * c;
    x1 = ( -b + sqrt(delta) ) / 2 * a;
    x2 = ( -b - sqrt(delta) ) / 2 * a;
    printf("%.2f %.2f", x1, x2);

    return 0;
}
```

运行截图

10 计算距离

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[])
{
    float v0, t, a, S;
    scanf("%f %f %f", &v0, &a, &t);
    S = v0 * t + 1.0/2.0 * a * t * t;
    printf("%.2f", S);

    return 0;
}
```

运行截图

11 圆的计算

源代码

```c
#include <stdio.h>

#define PI 3.1415926
```

```c

int main(int argc, char const *argv[])
{
    float r;
    scanf("%f", &r);
    double perimeter, area;
    perimeter = 2 * PI * r;
    area = PI * r * r;
    printf("%.2f %.2f", perimeter, area);

    return 0;
}
```

运行截图

12 计算运费

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[])
{
    int p, w, s;
    double d;
    double f;
    scanf("%d %d %d %lf", &p, &w, &s, &d);
    f = p * w * s * (1 - d);
    printf("%.3f", f);

    return 0;
}
```

运行截图

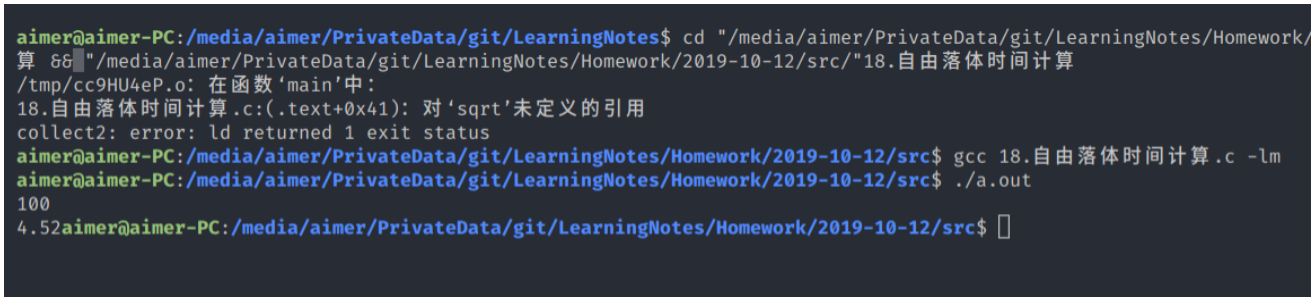
13 自由落体时间计算

源代码

```c
#include <stdio.h>
#include <math.h>

#define g 9.8

int main(int argc, char const *argv[])
```

```c
{
    float h, t;
    scanf("%f", &h);
    t = sqrt(2 * h / g);
    printf("%.2f", t);

    return 0;
}
```

运行截图



14 最小张数计算

源代码

```c
#include <stdio.h>

int main(int argc, char const *argv[])
{
    int money;
    scanf("%d", &money);
    int Money[6] = {100, 50, 20, 10, 5, 1};
    int i, ret;
    for (i = 0; i < 6; i++) {
        ret = money / Money[i];
        printf("%d\n", ret);
        money %= Money[i];
    }
    return 0;
}
```

运行截图

```
aimer@aimer-PC:/media/aimer/PrivateData/git/LearningNotes$ cd "/media/aimer/PrivateData/git/Le
media/aimer/PrivateData/git/LearningNotes/Homework/2019-10-12/src/"20.最小张数计算
1258
12
1
0
0
1
3
aimer@aimer-PC:/media/aimer/PrivateData/git/LearningNotes/Homework/2019-10-12/src$
```