

```
1. // includes
2. #include <cs50.h>
3. #include <math.h>
4. #include <stdio.h>
5. #include <stdlib.h>
6.
7. // defined constants
8. #define MAX_DAYS 31
9. #define MIN_DAYS 28
10.
11. int main(int argc, string argv[])
12. {
13.     if (argc != 3)
14.     {
15.         printf("Usage: ./pennies <days> <pennies on first day>\n");
16.         return 1;
17.     }
18.     // Days
19.     int days = atoi(argv[1]);
20.
21.     // Pennies
22.     int pennies = atof(argv[2]);
23.
24.     if (days < MIN_DAYS || days > MAX_DAYS || pennies < 0)
25.     {
26.         printf("Introduce un valor valido\n");
27.         return 1;
28.     }
29.
30.     // relatively few pennies required to get out of bounds of int
31.     long long total = pennies;
32.
33.     // add double the amount of pennies of the previous day each day
34.     for(int i = 1; i < days; i++)
35.     {
36.         total += pennies * pow(2,i);
37.     }
38.
39.     // output the total as dollars and cents only
40.     printf("$%.2f\n", ((double) total) / 100);
41. }
```