

1. **Output:** 1 2 4 8 16 32 64 128

2. C.

```
1  #include <stdio.h>
2  int main(void){
3      int i;
4      for(i=1; i <= 128; i *= 2){
5          printf("%d ", i);
6      }
7      return 0;
8  }
```

3.

```
1  #include <stdio.h>
2  int main() {
3      int base = 2, exp;
4      int result = 1;
5      printf("Enter an exponent: ");
6      scanf("%d", &exp);
7
8      while (exp != 0) {
9          result *= base;
10         --exp;
11     }
12     printf("Answer = %d", result);
13     return 0;
14 }
```

4.

```
1  #include<stdio.h>
2  int main(){
3      //Declaration of variable
4      int i,noofdays, startingDay;
5      //User input
6      printf("Enter number of days in month:\n");
7      scanf("%d",&noofdays);
8      printf("Enter the starting day of the week (1=Sun, 7=Sat):\n");
9      scanf("%d",&startingDay);
10     //Checkers to validate whether the days entered are valid.
11     if (noofdays>0 && noofdays<32 && noofdays!=27 && startingDay>0 && startingDay<8){
12         for(i=1;i<startingDay;i++)
13             printf(" "); //Three spaces for consistency
14         //Loop for displaying the number of days in month
15         for(i=1;i<=noofdays;i++){
16             printf("%3d",i); //Three spaces for consistency
17             if((startingDay+i-1)%7==0) //condition to move onto the next line
18                 printf("\n");
19         }
20     }
21     else{
22         printf("Input is invalid!\n");
23     }
24     return 0;|
25 }
```

5.

Github Link: <https://github.com/ainzzcutie/CMSC21.git>