**Hackerrank codes**

**Array reversal**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int num, \*arr, i;

scanf("%d", &num);

arr = (int\*) malloc(num \* sizeof(int));

for(i = 0; i < num; i++) {

scanf("%d", arr + i);

}

/\* Write the logic to reverse the array. \*/

for(i = num-1; i >= 0; i--)

printf("%d ", \*(arr + i));

return 0;

}

**Printing pattern using loops**

#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>

int main()

{

int n;

scanf("%d", &n);

// Complete the code to print the pattern.

int len= n\*2 - 1;

for (int i=0;i<len;i++){

for(int j=0;j<len;j++){

int min = i < j ? i : j;

min = min < len-i ? min : len-i-1;

min = min < len-j-1 ? min : len-j-1;

printf("%d ", n-min);

}

printf("\n");

}

return 0;

}

**Sum of digits of a 5 digit number**

#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>

int main() {

int n;

scanf("%d", &n);

int sum=0;

while(n>0)

{

int a=n%10;

sum=sum+a;

n=n/10;

}

printf("%d",sum);

//Complete the code to calculate the sum of the five digits on n.

return 0;

}

**Functions in c**

#include <stdio.h>

int max\_of\_four(int a, int b, int c, int d)

{

return(a>b && a>c && a>d) ? a : (b>c && b>d) ? b : (c>d) ? c : d;

}

int main() {

int a, b, c, d;

scanf("%d %d %d %d", &a, &b, &c, &d);

int ans = max\_of\_four(a, b, c, d);

printf("%d", ans);

return 0;

}

**Pointers in c**

#include <stdio.h>

void update(int \*a,int \*b) {

// Complete this function

int add,sub;

add=\*a+\*b;

sub=\*a-\*b;

if(sub<0)

{

sub=-sub;

}

\*a=add;

\*b=sub;

}

int main() {

int a, b;

int \*pa = &a, \*pb = &b;

scanf("%d %d", &a, &b);

update(pa, pb);

printf("%d\n%d", a, b);

return 0;}

**Sum and difference of two numbers**

#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>

int main()

{

int a,b;

float c,d;

scanf("%d%d",&a,&b);

scanf("%f%f",&c,&d);

printf("%d %d\n",a+b,a-b);

printf("%0.1f %0.1f",c+d,c-d);

return 0;

;

}

**Playing with characters**

#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>

int main()

{

char ch, s[50], sen[70];

scanf("%c%s\n%[^\n]s",&ch,&s,&sen);

printf("%c",ch);

printf("\n%s",s);

printf("\n%s",sen);

/\* Enter your code here. Read input from STDIN. Print output to STDOUT \*/

return 0;}

**Hello world in c**

#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>

int main()

{

char s[100];

scanf("%[^\n]%\*c", &s);

/\* Enter your code here. Read input from STDIN. Print output to STDOUT \*/

printf("Hello, World!\nWelcome to C programming.");

return 0;

}