Assignment 4

1.

main.c

```c
#include <stdio.h>
int main()
{
    int n, num = 0;
    printf("Enter any number less than 9: ");
    scanf("%d", &n);

    while(n != 0)
    {
        num = (num * 10) + (n % 10);
        n /= 10;
    }

    while(num != 0)
    {
        switch(num % 10)
        {
            case 0:
```

Run

Output

```
/tmp/zCdzXitRhJ.o
Enter any number less than 9: 7
Seven
```

2.

main.c

```c
#include <stdio.h>
int main() {
   double a, b;
   char op;

   printf("Enter character of arithmetic operation (+, -, *,
       /): ");
   scanf("%c", &op);

   printf("Enter value of 2 numbers: ");
   scanf("%lf %lf", &a, &b);

   switch (op) {
    case '+':
    printf("Addition of %lf and %lf is %lf", a, b, a+b);
      break;

    case '-':
    printf("Subtraction of %lf and %lf is %lf", a, b, a-b);
```

Run

Output

```
/tmp/zCdzXitRhJ.o
Enter character of arithmetic operation (+, -, *, /): *
Enter value of 2 numbers: 6.5
5
Multiplication of 6.500000 and 5.000000 is 32.500000
```

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3.

main.c

Run

Output

```c
#include <stdio.h>
int main() {
    int i, j, rows;
    printf("Enter the number of rows: ");
    scanf("%d", &rows);
    for (i = 1; i <= rows; ++i) {
        for (j = 1; j <= i; ++j) {
            printf("%d ", j);
        }
        printf("\n");
    }
    return 0;
}
```

```
/tmp/zCdzXitRhJ.o
Enter the number of rows: 5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

4.

main.c

Run

Output

```c
#include <stdio.h>
int main() {
    int i, j, k, l;
    int row1[5]= {7, 5, 1, 4, 2};
    int row2[4]= {5, 1, 8, 4};
    int row3[3]= {2, 7, 5};
    int row4[2]= {3, 2};

    for(i=0; i<5; i++)
    {
        printf("%d ", row1[i]);
    }

   printf("\n");

for(j=0; j<4; j++)
    {
        printf("%d ", row2[j]);
    }
```

```
/tmp/zCdzXitRhJ.o
7 5 1 4 2
5 1 8 4
2 7 5
3 2
```

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5.

main.c

```
1  #include <stdio.h>
2  int main() {
3      int vline, coeff = 1, space, i, j;
```

input

```
nter the number of rows (vertical lines): 6
                1
              1   1
            1   2   1
          1   3   3   1
        1   4   6   4   1
      1   5  10  10   5   1


..Program finished with exit code 0
ress ENTER to exit console.
```

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