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Assignment title: Lab sheet #01

EXERCISE: 1

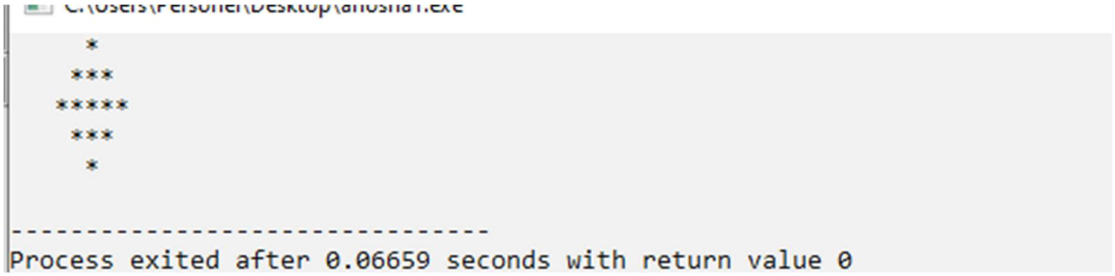
PRINT THE SHAPES

Part (1)

CODE:

```
#include<stdio.h>
int main()
{
        printf("    *\n");
        printf("   ***\n");
        printf("  *****\n");
        printf("   ***\n");
        printf("    *\n");
        return 0;
}
```

OUTPUT:



Part (2)

Code:

```
#include<stdio.h>

int main()

{

        printf("**********\n");

        printf("*       *\n");

        printf("*       *\n");

        printf("*       *\n");

        printf("**********\n");

        return 0;

}
```

OUTPUT:

```
**********
*        *
*        *
*        *
**********

--------------------------------
Process exited after 0.0847 seconds with return value 0
Press any key to continue . . .
```

Part (3)

Code:

```
#include<stdio.h>

int main()

{

	printf("  *\n");

	printf("  **\n");

	printf("  ***\n");

	printf("  ****\n");

	printf("  *****\n");

	return 0;


}
```

OUTPUT:

```
  *
  **
  ***
  ****
  *****

--------------------------------
Process exited after 0.06584 seconds with return value 0
Press any key to continue . . .
```

Part (4)

Code:

```
#include<stdio.h>
int main()
{
        printf("    *\n");
        printf("   **\n");
        printf("  ***\n");
        printf(" ****\n");
        printf("*****\n");
        return 0;
}
```

OUTPUT

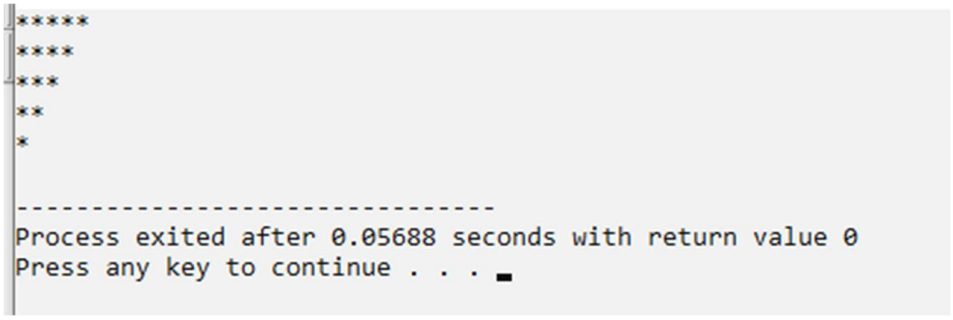
```
    *
   **
  ***
 ****
*****

--------------------------------
Process exited after 0.1097 seconds with return value
Press any key to continue . . .
```

Part (5)

Code:

```
#include<stdio.h>
int main()
{
	printf("*****\n");
	printf("****\n");
	printf("***\n");
	printf("**\n");
	printf("*\n");
	return 0;
}
```

OUTPUT

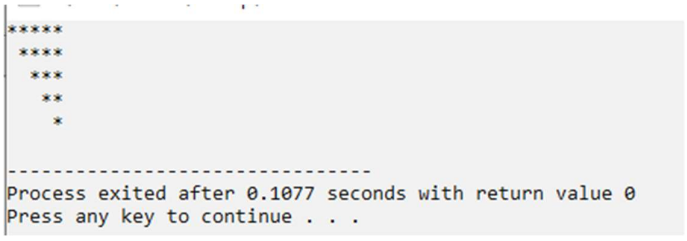


Part (6)

CODE:

```
#include<stdio.h>
int main()
{
	printf("*****\n");
	printf(" ****\n");
	printf("  ***\n");
	printf("   **\n");
	printf("    *\n");
	return 0;
}
```

OUTPUT:



EXERCISE: 02

Write a program that prints number 1 to 4 on the same line.

Part (a)

Using one printf with no conversion specifier

Code:

```
#include<stdio.h>
int main()
 {
        printf("1 2 3 4\n");
        return 0;
}
```

OUTPUT

```
1 2 3 4

--------------------------------
Process exited after 0.1202 seconds with return value 0
Press any key to continue . . .
```

Part(b)

one printf statement with four conversion specifier

CODE:

```
#include<stdio.h>

int main()

{


printf("%d%d%d%d",1,2,3,4);

return 0;

}
```

OUTPUT:

```
1234
--------------------------------
Process exited after 0.09347 seconds with return value 0
Press any key to continue . . .
```

Part (c)

Using four printf statements

Code:

```
#include<stdio.h>
int main()
{
	printf("1");
	printf("2");
	printf("3");
	printf("4");
	return 0;
}
```

OUTPUT:

```
1234
--------------------------------
Process exited after 0.06452 seconds with return value 0
Press any key to continue . . .
```

EXERCISE: 03

Write a program to perform simple arithmetic operations

CODE:

```
#include<stdio.h>
int main()
{
        int a,b,result;
        printf("enter two numbers\n");
        scanf("%d%d",&a,&b);
        result=a+b;
        printf("sum of two numbers is %d\n",result);
        result=a-b;
        printf("subtraction of two numbers is %d\n",result);
        result=a*b;
        printf("multiplication of two numbers is %d\n",result);
        result=a/b;
        printf("division of two numbers is %d\n",result);
        result=a%b;
        printf("remainder of two numbers is%d\n",result);
        return 0;
}
```

OUTPUT

```
enter two numbers
6
9
sum of two numbers is 15
subtraction of two numbers is -3
multiplication of two numbers is 54
division of two numbers is 0
remainder of two numbers is6

--------------------------------
Process exited after 13.29 seconds with return value 0
Press any key to continue . . .
```

EXERCISE: 04

Write a program to swap two numbers with and without using third variable

Part(a)

Code:

```
#include<stdio.h>
int main()
{
    int a,b;
    printf("enter first value\n");
    scanf("%d",&a);

    printf("enter second value\n");

    scanf("%d",&b);

    a=a+b;

    b=a-b;

    a=a-b;

    printf("value of a=%d\n",a);

    printf("value of b=%d\n",b);

return 0;

}
```

OUTPUT:

```
enter first value
40
enter second value
30
value of a=30
value of b=40

--------------------------------
Process exited after 5.982 seconds with return value 0
Press any key to continue . . .
```

Part(b)

Code:

```
#include<stdio.h>


int main()
{
        int x,y,z;
        printf("enter first value\n",x);
        scanf("%d",&x);
        printf("enter second value\n",y);
        scanf("%d",&y);
        z=x+y;
        x=z-x;
        y=z-y;
        printf("value of x=%d",x);
        printf("value of y=%d",y);
        return 0;
}
```

OUTPUT

```
enter first value
30
enter second value
40
value of x=40value of y=30
--------------------------------
Process exited after 9.916 seconds with return value 0
Press any key to continue . . .
```

EXERCISE: 05

Write a C program to calculate area and perimeter of triangle

CODE:

```
#include<stdio.h>

int main()
{
	float b=3;
	float h=6;
	float s=4;
	float a=0.5;
	float area;
	int perimeter;
	int side1;
	int side2;
	int side3;
	printf("print base\n");
	scanf("%f",&b);
	printf("print height\n");
	scanf("%f",&h);
	printf("print a\n");
	scanf("%f",&a);
	area=a*b*h;
	printf("%f%f%f\n",a,b,h);
	printf("enter the length of side one:\n");
	scanf("%f",&b);
	printf("enter the length of side 2:\n");
	scanf("%f,&h");
	printf("enter the length of side three\n");
	scanf("%f",&s);
	perimeter=side1+side2+side3;
	printf("perimeter of triangle\n");
	return 0;
}
```

OUTPUT

```
print base
3
print height
6
print a
0.5
0.5000003.0000006.000000
enter the length of side one:
3
enter the length of side 2:
6
enter the length of side three
4
perimeter of triangle

--------------------------------
Process exited after 20.04 seconds with return value 0
Press any key to continue . . .
```

-----The End-----