

Exercise 1

y=6 z= 6 x=6	X=10	y=10	z=10	r=5
r=0 y=4 z=6 x=2	X=9	y=10	z=10	r=0
r=0 y=5 z=5 x=3	X=8	y=10	z=11	r=1
	X=21	y=14	z=7	
	X=8	y=15	z=14	
	X=2	y=15	z=21	

Exercise 2

```
#include <stdio.h>

main() {
    int num;

    printf("Enter an integer: ");
    scanf("%d", &num);

    if (num > 0)
        printf("%d is positive.\n", num);
    else if (num < 0)
        printf("%d is negative.\n", num);
    else
        printf("The number is zero.\n");
}
```

Exercise 3

```
include <stdio.h>

int main() {
    int year;

    printf("Enter a year: ");
    scanf("%d", &year);

    if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {
        printf("%d is a leap year.\n", year);
    } else {
        printf("%d is not a leap year.\n", year);
    }

    return 0;
}
```

Exercise 4

```
#include <stdio.h>

main() {
    int num, fac = 1;
```

```
printf("Enter a non-negative integer: ");
scanf("%d", &num);

if (num < 0)
    printf("Factorial is not defined for negative numbers.\n");
else {
    for (int i = 1; i <= num; ++i) {
        fac *= i;
    }
    printf("Factorial of %d = %d\n", num, fac);
}
```

Exercise 5

```
#include <stdio.h>

int main() {
    int num;

    printf("Enter a number: ");
    scanf("%d", &num);

    // Display the multiplication table up to 10
    printf("Multiplication table for %d:\n", num);

    for (int i = 1; i <= 10; i++) {
        printf("%d x %d = %d\n", num, i, num * i);
    }

    return 0;
}
```

Exercise 6

```
#include <stdio.h>
main()
{ int n,i,k;
do{
    printf("saisir un entier positif");
    scanf ("%d",&n);
}while (n<=0) ;
k=0;// nombre de diviseurs
for (i=1; i<=n; i++)
{
    if(n%i==0)
    { printf ("%d est un diviseur de %d\n", i,n);
      k++;
    }
}
if (k==2)
printf("%d est un nombre premier\n", n);
/*un nombre premier n'accepte que 2 diviseurs : 1 et lui-même*/
else
printf(" %d n'est pas premier\n", n);
}
```