(i) Print to the screen the message:
1 \times 2 \times 3 \times 4 = 24
```
cout << "1 \times 2 \times 3 \times 4 = 24" << endl;
```

(ii) Print a random number \( r \) with \( 11 \leq r \leq 29 \). (An appropriate C++ function must be used to make the random number.)
```
int r = rand() % 19 + 11;
cout << r << endl;
```

(iii) Print the sum of the square roots of 11 and 12.
```
cout << sqrt(11) + sqrt(12) << endl;
```

(iv) Ask the user to enter their age. If their answer does not satisfy \( 0 \leq \text{age} \leq 200 \) exit the program immediately.
```
int age;
cout << "What is your age?" << endl;
cin >> age;
if (age < 0 || age > 200) {
    return 0;       // exit(0);
}
```

(v) Print to the screen every four digit number \( n \) that is divisible by both 6 and 10. Print one number per line. (For example 6000 would be printed but 5999 would not be printed since \( 6000 = 6 \times 1000 = 10 \times 600 \).)
```
int n = 1000;
while (n != 10000) {
    if (n % 6 == 0 && n % 10 == 0) {
        cout << n << " ";
    }
    n+=1;       // same as n = n + 1;
}
```

(vi) Print the numbers from 1 to 1000 to the screen, one number per line.
```
int n = 1;
while (n != 1001) {
    cout << n << " ";
    n+=1;       // same as n = n + 1;
}
```

(vii) Print the even numbers from 2 to 400 to the screen, one number per line.
```
int n = 2;
while (n != 401) {
    if (n % 2 == 0) {
        cout << n << " ";
    }
    n+=1;       // same as n = n + 1;
}
```
(viii) Print every three digit number n for which the next to last digit of n^2 is 2. For example, 111 is printed because $111^2 = 12321$. (This number ends in the digits 21 and its next to last digit is 2.)

```c
int n = 111;
while (n != 1000) {
    if (((pow(n, 2))/10) % 10 == 2) {
        cout << n << " ";
    }
    n+=1; // same as n = n + 1;
}
```

(ix) Calculate x as the decimal that represents the fraction 1/7.
```
double x;
x = (double) 1/7;
```

(x) Read an integer greater than 2 from the user, then print it in reverse. (If the user enters the number 125, the program should print 521.)
```
int n;
cout << "Enter an integer greater than 2";
cin >> n;
while (n != 0) {
    cout << n%10;
    n = n/10;
}