Write the output of the following programs (if any). If there is an error in the program, correct the code and then write the output.

Tip: Use python tutor (https://pythontutor.com/visualize.html#mode=edit) for line by line execution of programs for a better understanding, first try to solve by yourself.

```
int main()
                                                                                                           Output
         for (i = 0, i++; i \le 2; i = 0, i += 3)
                   cout << i;
         return 0;
}
int main()
         int choice = 5;
         switch (choice) {
         default:
                   cout << "\nI am in Default";</pre>
         case 1:
                   cout << "\nI am in case 1";
          case 2:
                   cout << "\nI am in case 2";
                   break;
          case 3:
                   cout << "\nI am in case 3";
                   break;
         return 0;
int main()
          float num1 = 1.1;
         double num2 = 1.1;
         if (num1 == num2)
                   cout << "Stanford";</pre>
         else
                   cout << "Islamabad";</pre>
         return 0;
int main()
         int y = 0;
         switch (y) {
         case 0: y = y + 5;
         case 1: y = y / 2;
         case 2: y = y * 3;
         case 3: y = y + 10;
         default: y = y \% 3;
         cout << y << endl;
         return 0;
```

```
int main()
         int i = 5, j = 3, k = 4;
         if (i \% j + i < k) {
                   cout << (k > i < j);
          }
          else {
                   cout << (i < j == j < k);
          }
         return 0;
int main()
         int i = 3, j = 3, k = 3;
         if (-i - 7 &  j++ < ++k)
                   cout << ++i;
                   cout << i << j << k;
         return 0;
int main()
{
         int n = 5;
          while (n >= 0)
                   cout << --n * n++ << endl;
                   n--;
          while (n > 0)
                   cout << (n /= 2) << endl;
         return 0;
int main()
         int i, j, m, answer;
         m = 0;
         j = 3;
          while (m < 3) {
                   for (i = 0; i < j; i++) {
                             answer = i * m;
                             cout << answer;
                   m = m + 1;
                   cout << endl;
          }
         return 0;
int main()
         int i = 2, j = 2;
          while (i + 1 ? --i : j++)
                   cout << " " << i;
int main()
```

```
int y = 10;
         if (y++> 9 \&\& y++ != 11 \&\& y++> 11)
                   cout << y;
         else
                   cout << y;
}
int main()
{
         unsigned char i = 0;
         for (; i >= 0; i++);
         cout << static_cast<int>(i) <<"\n";</pre>
int main()
         unsigned int i = 1;
         while (i-->=0)
                   cout << i;
int main()
         int i = 0;
         while (+(+i--)!=0)
                   i -= i++;
                   cout << i;
int main()
         int i = 0;
         for (i = 0; i < 30; i++)
                   switch (i)
                   case 0:
                             i += 5;
                   case 1:
                             i += 2;
                   case 5:
                             i += 5;
                   default:
                             i += 4;
                             break;
                   cout << i << " ";
int main()
{
         int a;
         int b = 1;
         int x[5] = \{1, 2, 3, 4, 5\};
         a = 5 * 4 + x[--b] - (9 / b);
         cout << a;
int main()
```

```
int n = 6, x = 2, i = 0;
          while (i \le n)
                   if (i \% 2 == 1)
                             x = x + pow(2, i) * i;
                   cout << x << "-";
         return 0;
}
int main() {
         int i = 0, x = 0;
         do
          {
                   if (i \% 5 == 0)
                             cout << x;
                             x++;
                   ++i;
          \} while (i < 10);
         cout << x;
         return 0;
}
int main() {
         int K = 5;
         int I = -2;
         while (I <= K) {
                   I = I + 2; --K;
                   cout << (I+K) << endl;
         return 0;
}
int main() {
         char i = 0;
         for (; i++; cout << int(i));</pre>
         cout << int(i);
         return 0;
}
int main() {
         int count = 0;
         for (;;) {
                   if (count == 10)
                             break;
                   cout << ++count;
          }
         return 0;
int main() {
```

```
int count;
          for (count = 0; count < 10; ++count) {
                    cout << "#";
                    if(count > 6)
                              continue;
                    cout << count;</pre>
          }
          return 0;
int main() {
          int loopvar = 5;
          while (cout << "Hello " && loopvar--);
          return 0;
int main() {
          int i, j, var = 'A';
          for (i = 5; i >= 1; i--) {
                    for (j = 0; j < i; j++)
                              cout \ll char(i + var + j);
                    cout << endl;
          return 0;
int main() {
          int r = 5, x = 0;
          while (x < r) {
                    int y = 1;
                    while (y < r - x) {
                              cout << " ";
                              y++;
                    int z = 0, n = 1;
                    while (z \le x) {
                              n = z == 0 \parallel x == 0 ? 1
               : n * (x - z + 1) / z;
                              char ch = n == 1 ? 'X':
                n \% 3 == 0 ? 'Y' : 'V';
                              cout << ch << ' ';
                    cout << '\n';
                    x++;
          }
int main()
          int y = 2, x = 4, temp = 0;
          temp = y == 2 ? x < 1 ? x + y + 4 : x + y - 4 : x + 9;
          cout << temp;
```