Programming Principles II
Lab02

Identify the error and fix it if there is an error. If there is no error what is the output.

1) short *p;
   *p = 4;
    cout << *p << endl;

2) double *p = new double(3.2);
    double x = *p;
    cout << x;

3) float *p;
    cin >> *p;
    cout << *p;

4) double x = 2.3;
    double *p = &x;
   *p = 4.3;
    cout << x ;

5) short *p = new short(2);
    short *q ;
    q = p;
    *q = 3;
    cin >> *q; //user enter 5
    cout << *p << endl;

6) long * p = new long(10);
    long **q = &p;
    cout << *q << endl;
    cout << **q << endl;

7) int *A = new int[10];
    for (int i=1; i<=10; i++)
       cout << A[i] << " ";

8)   void func(long* A, int size) {
          A = new long[size];
          for (int i=0; i<size; i++) {
              A[i] = i;
          }
      }
      int main() {

```cpp
                long B[] = {10, 20, 30};
                func(B, 3);
                cout << B[1] << endl;
            return 1;
        }


9)  void func(long* &A, int size) {
        A = new long[size];
        for (int i=0; i<size; i++) {
          A[i] = i;
        }
        }


        int main() {
          long * B;
          func(B, 3);
          cout << B[1] << endl;
          return 1;
        }


10) long*  func(long* A, int size) {
        long * b = new long[size];
        for (int i=0; i<size; i++) {
                b[i] = 2*A[i];
        }
        return b;
      }


            int main() {
                int B[] = {10, 20, 30};
                long * BB = func(B, 3);
                cout << BB[1] << endl;
                return 1;
            }

11) void func ( int **A) {
        int *p = new int(5);
        *A = p;
        }

        int main() {
                int *a ;
                func(&a);
                cout << *a << endl;
}

12) long * p = new int(10);
        cout <<  *p << endl;
```

13) int p = new int;
    cout << p << endl;

12)   int ** pp;
        int x = 5;
        int y = 6;
        int z = 7;

        int *p1 = &x;
        int *p2 = &y;
        pp = &p1;
        *pp = p2;
        *p2 = 10;
        cout << **pp << endl;

        *pp = &z;
        cout << **pp << endl;

14) write code segment that prompt the user for an integer value N, then dynamically allocate an array of double of size N.

15) write code segment that prompt the user for an integer N and then dynamically allocates an array of short *. Then free memory you allocated.

16) dynamically allocate a variable of double and initialize it to 7.3.
17) write a prototype of a function that takes an integer and dynamically allocate any array of doubles and initialize it to zeros, and then returns the array.