

**DO NOT USE THE COMPUTER, C++ COMPILER, OR THE INTERNET FOR HELP WITH THESE EXERCISES.
SHOW SCRATCHWORK ON THIS PAPER.**

Trace the following code segments and show the output.

```
1)
list<int> numbers;
int k = 6;

for (int j = 0; j < 6; j++)
{
    numbers.insert(numbers.end(), k);
    k--;
}

list<int>::iterator i;

for (i = numbers.begin(); i != numbers.end(); i++)
{
    cout << *i << endl;
}
```

.....

```
2)
deque<int> deqExample;
int k = 7;

for (int i = 1; i < 6; i++)
{
    deqExample.push_front(k + 1);
    k++;
}

deqExample.pop_front();
deqExample.pop_front();

for (int i = 0; i < deqExample.size(); ++i)
{
    cout << deqExample[i] << ' ';
}
```

.....

```
3)
stack <int> stackExample;
stackExample.push(60);
stackExample.push(6);
stackExample.push(222);
stackExample.push(8);
stackExample.pop();

while (stackExample.size() != 0)
{
    cout << stackExample.top() << " ";
    stackExample.pop();
}
```

```
}
```

```
4)
set<int> setExample;
setExample.insert(2);
setExample.insert(34);
setExample.insert(54);
setExample.insert(99);
set<int>::iterator i;
setExample.erase(34);

for (i = setExample.begin(); i != setExample.end(); i++)
    cout << *i << " ";
```

```
5)
list<int> numbers;
int num = 1;

for (int j = 0; j < 5; j++)
{
    numbers.insert(numbers.end(), num);
    num++;
}

numbers.pop_front();
numbers.reverse();
list<int>::iterator i;

for (i = numbers.begin(); i != numbers.end(); i++)
    cout << *i << endl;
```

```
6)

priority_queue<int> pq;
pq.push(16);
pq.push(50);
pq.push(99);
pq.pop();
pq.push(22);
pq.push(66);
pq.push(33);
pq.pop();

while (!pq.empty())
{
    cout << pq.top() << " ";
    pq.pop();
}
```

```
7)

deque<int> deqExample;
int num = 1;

for (int i = 1; i <= 6; i++)
```

```
{
    deqExample.push_back(num);
    num++;
}

deqExample.pop_back();
deqExample.pop_back();
deqExample.pop_front();

for (int i = 0; i < deqExample.size(); ++i)
    cout << deqExample[i] << ' ';
```

8)

```
multiset<int> setExample;
setExample.insert(2);
setExample.insert(2);
setExample.insert(99);
setExample.insert(99);
cout << setExample.count(2);
```

9)

```
deque<int> deqExample;
int k = 1;

for (int i = 1; i <= 6; i++)
    deqExample.push_front(k + 1);

for (int i = 0; i < deqExample.size(); ++i)
    cout << deqExample[i] << ' ';
```

10)

```
stack<int> stackExample;
stackExample.push(51);
stackExample.push(23);
stackExample.push(19);
stackExample.push(60);
stackExample.push(60);
stackExample.push(60);
stackExample.pop();
```