

## CS-231 Practice Exam 2 Solutions Spring 99

1. (a) `c >= 'A' && c <= 'Z'`  
(b) `!( X > Y || X > Z)`  
which is the same as `( X<= Y && X <= Z)`  
(c) `( W > -10 && W < 10 )`

2. (a) `(A && B) || B`  
which is the same as B  
(b) `A || B`

3. 

```
if ( age <= 25 )
{
    if (accidents == 0)
        rate = 1000;
    else
        rate = 1500;
}
else if (age < 59)
    rate = 700;
else
    rate = 800;
```

### 4. For-Loops

- (a) 

```
for (int i = 100; i >= 50 ; i -= 2)
    System.out.println(i);
```
- (b) 

```
for (char c = 'a' ; c <= 'z'; c++)
    System.out.println(c);
```
- (c) 

```
int sum = 0;
for (int i = 0; i < 20; i++)
    sum += numbers[i];
```

### 5. While-Loops

- (a) 

```
int i = 100;
while ( i >= 50)
{
    System.out.println(i);
    i = i - 2;
}
```

```
(b) int sum = 0;
    while ( sum <= 100)
        sum += inbox.getInteger("Enter an integer:");
```

6. Declaring Complex numbers

```
Complex c[][] = new Complex[3][4];
for (int i = 0; i < 3; i++)
    for (int j = 0; j < 4; j++)
        c[i][j] = new Complex();
```

7. k = 16 j = 3

8. (a) int num [];

```
(b) String names[] = {"Frank", "Sally", "Eric"};
```

```
(c) int [] age = new int[3];
    age[1] = 6;
```

```
(d) int area [][] = new int[2][3];
```

```
(e) Complex c[] = new Complex[2];
```