1. (a) \( c \geq 'A' \land c \leq 'Z' \)
   
   (b) \( \neg (X > Y \lor X > Z) \)
   
   which is the same as \( (X \leq Y \land X \leq Z) \)
   
   (c) \( W > -10 \land W < 10 \)

2. (a) \( (A \land B) \lor B \)
   
   which is the same as \( B \)
   
   (b) \( A \land B \)

3. if ( age \leq 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];