Program 3

```
import java.util.Scanner;

Public class Cookie {

 Public static void main (String [ ] args) {

Scanner Kb = new.scanner (System.in);

System.out.println ("This cookie recipe makes 5 cookies per batch");

System.out.print("How many cookies do you want to make?");

 double batch =cookies 15;

 double sugar = 1.5*batch;

 double butter = 1 * batch;

 double flour = 2.75*batch;

double choc_chip= 1*batch;

System.out.println ("To make "+ cookiest" cookies, you will need : ");

System.out.println (sugar + "cups of sugar");

System.out.println (butter + "cups of butter");

System.out.println (flour +" cups of flour");

System.out.println (choc_chip + "cups of chocolate chips");

}

}
```

Short Answer

1.) CPU's perform arithmetic operations, logical operations, data transfer operations, and control operations

2.) a.) byte = 8 bits
b.) Short = 2 bytes
c.) int = 4 bytes
d.) long = 8 bytes
e.) float = 4 bytes
f.) double = 8 bytes
g.) char = 2 bytes
h.) boolean = 1 byte (T/F)

3.) b.) j0 j1 j2 j3 j4 j5 j6

4.) c.) nothing

5.) d.) i an "infinite" number of times

6.) a.) 5i 4i 3i 2i 1i

7.) d.) p an "infinite" number of times

8.)
```
if  x ? 25 {
      Y = x; }
  else { y = 2;
    }
```

9.)
```
if (x ? = 0) {
     System.out.println("Positive" + x);
   }
  else { System.out.println("negative" + x);
```

10.) 5 2 10

11.) -8 2 10

12.)
```
if (angle == 90) {
        System.out.println("right angle");
        }
    else {  system.out.println("not a right angle");
        }
```

13.)
```
import    java.util.Scanner;
  Public class  graduate {
 Public static void main (String[] args){
Scanner kb= new Scanner(System.in);
System.out.println("Enter how many credit hours you have completed:");
int credits = kb.nextInt();
if (credits >=122) {
        System.out.println("You are ready to graduate!");
}
else { System.out.println ("You are not ready to graduate. You need
more credits."); }
}

}
```

14.)
```
x= 27;
   y= x%.3;
   if(y==0) {
      System.out.println("Divisible by 3");
    }
   else { System.out.println("Not divisible by 3");
    }
```

15.)
```
if (testscore >= 90 && test score <= 100) {
        System.out.println("A");
    }
else if (testscore >= 80 && test score <= 89){
        System.out.println("B");
    }
else if (test score >= 70 && test score <= 79){
        System.out.println("C");
    }
else if (test score >= 60 && test score <= 69){
        System.out.println("D");
    }
else if (test score >= 0 && test score <= 59){
        System.out.println("F");
    }
else { System.out.println ("Enter a real score (0-100)!");
    }
```

16.)
```
import java.util.Scanner;
 public class Greater{
  Public static void main (String[] args){
Scanner kb= new Scanner (System.in);
 for (i=0; i<3; i++){
      System.out.println ("Enter an integer");
  int num= kb.nextInt();
  if (num>5){
      System.out.println ("Greater than 5");
    }
  else { System.out.println ("Not greater than 5");
    }
  }
}
}
```