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Scala Tutorial 2

Q1) & Q2)

```
def main(args: Array[String])={  
  
    var k,i,j:Int=2;  
    var m,n:Int=5;  
    var f=12.0f;  
    var g=4.0f;  
    var c='X';  
  
    println(k+12*m);  
    println(m/j);  
    println(n%j);  
    println(m/j*j);  
    println(f+12*5+g);  
    println((i+1)*n);  
}
```

Q3)

```
def main(args: Array[String])= {  
  
    var a=2;  
    var b=3;  
    var c=4;  
    var d=5;  
    var k=4.3f;  
    var g=4.0f;  
  
    b-=1;  
    println(b*a+c*d);  
    d-=1;  
    println(a);  
    a+=1;  
    println((-2)*(g-k)+c);  
    println(c);  
    c+=1;  
    c+=1;  
    println(c*a);  
    a+=1;  
}
```

Q4) part a)

```
def normal(x:Double):Double=x*250  
def ot(x:Double):Double=x*85  
def income(x1:Double,x2:Double):Double=normal(x1)+ot(x2)  
def tax(x1:Double,x2:Double):Double=income(x1,x2)*0.12  
def takeHomeSal(x1:Double,x2:Double):Double=income(x1,x2)-tax(x1,x2)  
  
def main(args: Array[String])={  
  
    println(takeHomeSal(40,30));  
}
```

Q4) part b)

```
def main(args: Array[String])={  
  
    println(totIncome(30));  
}  
  
def additional(x:Int):Int=(x-15)/5  
def totAttend(x:Int):Int=120+((-20)*additional(x))  
def AttendanceCost(x:Int):Double=totAttend(x)*3  
def totCost(x:Int):Double=AttendanceCost(x)+500  
def income(x:Int):Double=x*totAttend(x)  
def totIncome(x:Int):Double=income(x)-totCost(x)
```