1. Compute the real roots of the quadratic equation in the form of $ax^2 + bx + c = 0$.
2. Without using R, determine the result of the following computation.

```
x <- c(1,2,3)
x[1]/x[2]^3-1+2*x[3]-x[2-1]
```

3. Construct separate plots of $\log(x)$, $\exp(x)$, by using appropriate x values.
4. Consider vector *1: K*, where *K* is a positive integer. Write R command that determines how many elements in the vector are exactly divisible by 3.
5. Write an R expression to determine if two sets, *A* and *B*, represented as integer vectors are disjoint. If not disjoint, print the common elements.
6. Write a loop structure to scan through an integer vector to determine the index of the maximum value.
7. Do the same without using a loop.
8. Compound interest can be computed using the formula,

$$A = P \times \left(1 + \frac{R}{100}\right)^n$$

where *P* is the original money lent, *A* is what it amounts to in n years at *R* percent per year interest. Write a function to calculate the amount of money owed after n years where n changes from 1 to 15 in yearly increments, if the money lent originally is 5000 rupees and the interest rate remains constant throughout the period at 11.5%.

9. Import the file "Death Row.csv" into R and identify the variables.