Problem set 1: Quadratic equation

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Excercise 5

Erase the PDF report and reproduce it but this time using $a = 1, b = 3, c = 2$. Change the range of x to range that clearly shows the roots.

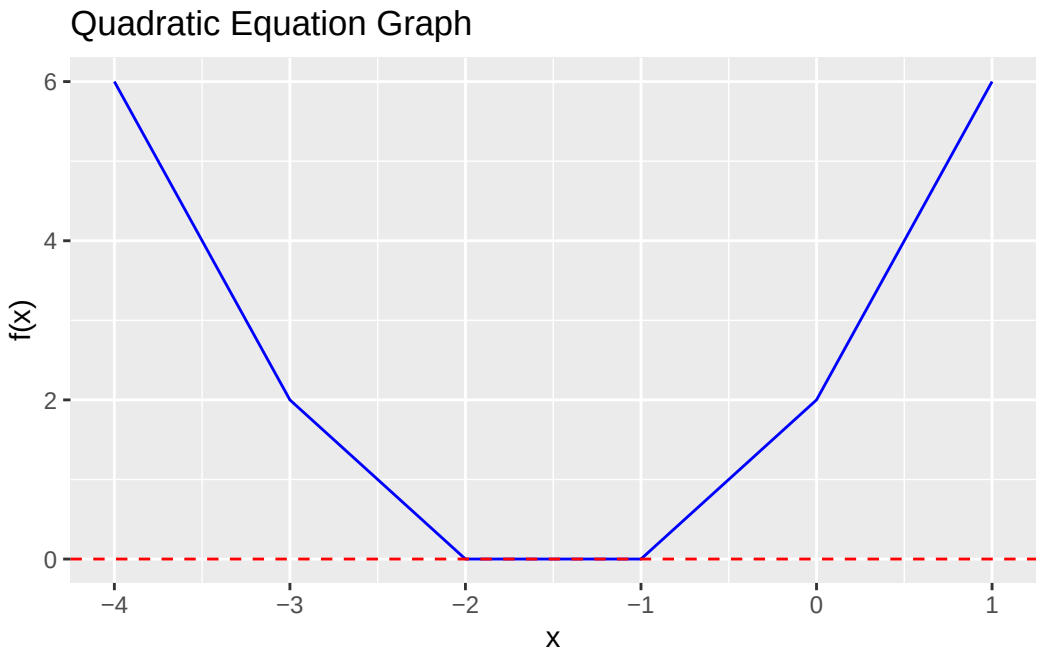
```
a=1
b=3
# c will be called k
k=2
```

```
#To determine if the quadratic equation have real solutions we use the discriminant.
real_soln<-b^2-4*a*k

if (real_soln>=0){
  soln_1<-(-b+sqrt(real_soln)/2*a)
  soln_2<-(-b-sqrt(real_soln)/2*a)

  cat("Real Solutions: \n")
  cat("x =", soln_1, "\n")
  cat("x =", soln_2, "\n")
} else {
  cat("No real solutions. \n")
}
```

```
Real Solutions:
x = -2.5
x = -3.5
```


Quadratic Equation Graph
6
4
2
0
f(x)
−4
−3
−2
−1
0
1
x