Root Lab

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Problem 1

```
def quad_poly(a,b,c):
  if (a == 0 and b == 0):
    if (c == 0):
      print("All reals")
    else :
      print("No real solution")
  elif (a == 0):
      print(-c/b)
  elif (b**2-4*a*c < 0):
      print("No real solution")
  elif (b > 0):
      print((-b - ((b ** 2 - 4 * a * c ) * ( 1 / 2)))) / (2 * a)
      print((2 * c) / (-b - ((b ** 2 - 4 * a * c ) * ( 1 / 2))))
  elif (b < 0):
      print((-b + ((b ** 2 - 4 * a * c ) * ( 1 / 2)))) / (2 * a)
      print((2 * c) / (-b + ((b ** 2 - 4 * a * c ) * ( 1 / 2))))
```

```
quad_poly(0,0,2)
```

```
## No real solution
```

```
quad_poly(0,3,-10)
```

```
## 3
```

```
quad_poly(2,-10,5)
```

```
## 2
## 1
```

```
quad_poly((12/10), (5*10**20), (-2/1000))
```

```
## -250000000000000000000
## 0
```

```
quad_poly(2,10,32)
```

```
## No real solution
```