In [1]:
```
xo=2
eta=0.01
eps=0.000001
del_x=1
max_iters=1000
iters=0
y,z=0,0
```

In [2]:
```
def deriv(x):
    y=x**3
    z=4*y+6*x

    return z
```

In [3]:
```
while abs(del_x)>eps and iters < max_iters:
    prev_x = xo
    del_x=-eta*deriv(prev_x)
    xo=xo+del_x
    iters+=1
print("Local minimun occurs at",xo)
```

```
Local minimun occurs at 1.5114009452630606e-05
```

In [ ]:
```

```