PRACTICAL-13 MCI

#Code

```
Web VPython 3.2
def F(rr):
    return(vector(rr.x**2*rr.y,2*rr.x*rr.z,rr.z**2 - 2*rr.y))


def curlF(rr):
    ds = 0.001
    dx = vector(ds,0,0)
    dy = vector(0,ds,0)
    dz = vector(0,0,ds)
    cFx = (F(rr+dy).z-F(rr-dy).z)/(2*ds) - (F(rr+dz).y-F(rr-dz).y)/(2*ds)
    cFy = (F(rr+dz).x-F(rr-dz).x)/(2*ds) - (F(rr+dx).z-F(rr-dx).z)/(2*ds)
    cFz = (F(rr+dx).y-F(rr-dx).y)/(2*ds) - (F(rr+dy).x-F(rr-dy).x)/(2*ds)
    return(vector(cFx,cFy,cFz))

rt=vector(1,2,3)

print("Curl of Vector"+rt+"is",curlF(rt))
```

#Output

```
Curl of Vector< 1, 2, 3 >is < -4, 0, 5 >
```