Name:	**ID:**	**serial:**

MATH 301 Term 061 QUIZ 2

1) Find the Curl and the divergence $F(x,y,z)=(xz)i+(yz)j+(xy)k$

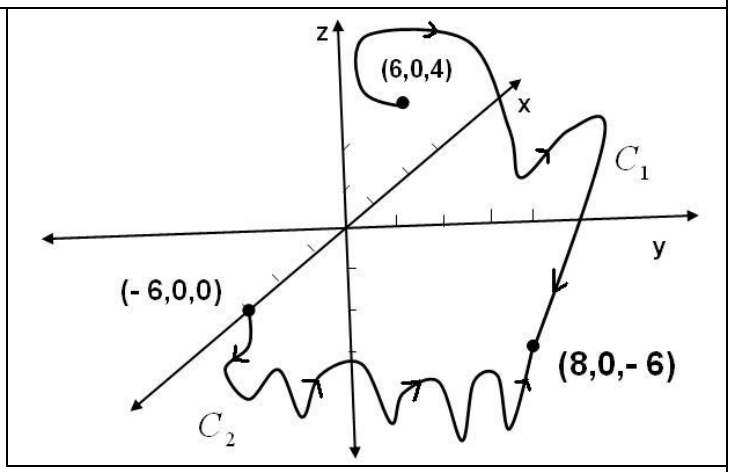
$div\ F(x,y,z)=$

curl $F(x,y,z)=$

2)Given that:

$$\int_{C_1}(y+z)dx+(x+z)dy+(y+x)dz=-72$$

$$\int_{C_2}(y+z)dx+(x+z)dy+(y+x)dz=-48$$



Where C_1 is the curve starts at the point (6,0,4) and ends at the point (8,0,-6) and C_2 is the curve starts at the point (-6,0,0) and ends at the point (8,0,-6) as shown in the figure.

Evaluate the line integral

$$\int_{(6,0,4)}^{(-6,0,0)}(y+z)dx+(x+z)dy+(y+x)dz=$$

3) Show that the given integral is independent of the path. Then Evaluate (#24/pp 502

$$\int_{(-2,3,1)}^{(0,0,0)} (2xz)dx + (2yz)dy + (x^2 + y^2)dz =$$