```
In[852]:= Elonlon[lon, lat] := 0
          Elatlat[lon, lat] := 0
          Err[lon, lat] := 0
          Elonlat[lon, lat] := Cos[lon] * (1 + Cos[2 * lat])
          Elatr[lon, lat] := 0
          Elonr[lon, lat] := 0
          divElon[lon, lat] :=
           1 / (R * Cos[lat]) * D[Elonlon[lon, lat], lon] + 1 / R * D[Elonlat[lon, lat], lat] +
            D[Elonr[lon, lat], R] + 1 / R * (-2 * Tan[lat] * Elonlat[lon, lat] + Elonr[lon, lat])
          divElat[lon, lat] := 1 / (R * Cos[lat]) * D[Elonlat[lon, lat], lon] +
            1 / R * D[Elatlat[lon, lat], lat] + D[Elatr[lon, lat], R] +
            1 / R * (Tan[lat] * Elonlon[lon, lat] - Tan[lat] * Elatlat[lon, lat] + Elatr[lon, lat])
          divER[lon, lat] := 1 / (R * Cos[lat]) * D[Elonr[lon, lat], lon] + 1 / R * D[Elatr[lon, lat], lat] +
            D[Err[lon, lat], R] + 1 / R * (-Elonlon[lon, lat] - Elatlat[lon, lat] - Tan[lat] * Elatr[lon, lat])
```

```
In[861]:= divElon[lon, lat]
```

$$Out[861]= -\frac{2\,Cos[lon]\,Sin[2\,lat]}{R} - \frac{2\,(1 + Cos[2\,lat])\,Cos[lon]\,Tan[lat]}{R}$$

```
In[862]:= divElat[lon, lat]
```

$$Out[862]= -\frac{(1 + Cos[2\,lat])\,Sec[lat]\,Sin[lon]}{R}$$

```
In[863]:= divER[lon, lat]
```

```
Out[863]= 0
```