

まず $\cos(2y + z)$ の部分に関しては, $2y + z = u$ とおいて合成関数の微分法を使うと,

$$\{\cos(2y + z)\}_y = (\cos u)'u_y = -2 \sin(2y + z)$$

$$\{\cos(2y + z)\}_z = (\cos u)'u_z = -\sin(2y + z)$$

ゆえに

$$w_x = (x)_x \cos(2y + z) = \cos(2y + z)$$

$$w_y = x \{\cos(2y + z)\}_y = -2x \sin(2y + z)$$

$$w_z = x \{\cos(2y + z)\}_z = -x \sin(2y + z)$$