

## MATH 223

*Some Hints and Answers for Assignment 30*

Exercises 3, 4, 7, 11 and 14 of Chapter 8.

**4:** Divergence is  $2x + y$  and. Curl is  $(z - x, 0, z)$ .

**11:** Divergence of the curl is always 0.

**14:**  $\left(\frac{x}{x^2+y^2}\right)_x = \frac{y^2-x^2}{(x^2+y^2)^2}$  and  $\left(\frac{x}{x^2+y^2}\right)_y = \frac{2xy}{(x^2+y^2)^2}$