

## MTH 201

### MULTIVARIABLE CALCULUS AND DIFFERENTIAL EQUATIONS

#### ASSIGNMENT-3, DUE DATE 09/09/2016

**Problem 1.** 7, 29, 44 from Exercises 14.1

**Problem 2.** 50, 55, 56, 60, 64, 66 from Exercises 14.2

**Problem 3.** 50, 58 from Exercises 14.3

**Problem 4.** Let  $D$  be an open subset of  $\mathbb{R}^2$  and  $f : D \rightarrow \mathbb{R}$  be a function. Let  $a \in D$  be a point in  $D$  and total derivative of  $f$  exists at  $a$ . Show that  $f$  is continuous at  $a$ .

#### PRACTICE PROBLEMS

**Problem-1.** Solve 44, 62, 68 from Exercises 14.2

**Problem-2.** Solve 27, 31 from Exercise 14.4

**Note:** Please do not submit practice problems. You can discuss it in tutorial class.

**Text Book:** Thomas' Calculus 11th edition (Maurice D. Weir, Joel Hass, Frank R. Giordano).