Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 2 LT 2 Quiz 1

1. What is Rolle’s Theorem?
2. What is the Mean Value Theorem?
3. The table below shows certain values for the differentiable function *f(x)* on

[-5,8]. Use a theorem to explain why there must be some value, *c*, in the interval [-5,8] such that *f ‘ (c)* = 0.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *x* | -5 | 0 | 3 | 6 | 8 |
| *f(x)* | 4 | 13 | -5 | 1 | 4 |

1. The table below shows certain values for the differentiable function *f(x)* on

[-3,6]. Use a theorem to explain why there must be some value, *c*, in the interval [-3,6] such that *f ‘ (c)* = 2.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *x* | -3 | 0 | 2 | 3 | 6 |
| *f(x)* | 12 | 3 | -5 | 14 | 30 |

Also do p. 176# 1-4, 14, 17, 23, 29, 40, 45, 51, 57-60