16 Differentiable functions [1C5]

Definition 16.1. [2DO]

To address the following exercises, it may be necessary to know some fundamental results in Analysis and Differential Calculus that may be found *e.g.* in [18, 6]; specifically:

- Lagrange's Theorem [93] : Theorem 5.10 in in [18], or [58].
- De l'Hôpital' rule, and corollaries: : Theorem 5.13 in in [18], Sec. 7.12 in [6] or [19, 56];
- Taylor's Theorem, and the possible remainders: Theorem 5.15 in in [18], Chap. 7 in [6], or [63].

Exercises

E16.2 [1C6]

E16.3 [1C8]

E16.4 [1CB]

E16.5 [1CD]

E16.6 [1CG]

E16.7 [1CJ]

E16.8 [1CM]

E16.9 [1CP]

E16.10 [1CV]

E16.11 [1CX]

E16.12 [1CZ]

E16.13 [1D1]

E16.14 [1D4]

E16.15 [1D7]

E16.16 [1D9]

QuasiEsercizio 47. [1DB]

QuasiEsercizio 48. [1DC]

16.1 Higher derivatives

[2D1]

16.2 Taylor polynomial

[2D2]

16.3 Partial and total derivatives, differentials

[2D3]

16.4 Implicit function theorem

[2D4]

16.5 Constrained problems

[2D5]

[93] *a.k.a.* Mean Value Theorem