

تكملة 3.1 (سؤال 6)

لذا كانت $z \rightarrow z_n \rightarrow y$ فما ثبت أن المسألة
 متناهية متقاربة ونزاعية (x_1, y_1, z_1, \dots)
 $(z) = (z_1, z_2, z_3, \dots)$

$$\exists \epsilon > 0 \forall n \in \mathbb{N} \exists N \in \mathbb{N} \forall n > N \Rightarrow |z_n - z| < \epsilon$$

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$$N = \max\{2N_1 - 1, 2N_2\}$$

$$\begin{aligned} 1 - N_1 < N < 2N_1 - 1 \\ \Rightarrow 1 - N_1 < N < 2N_1 - 1 \\ N_1 < \frac{N+1}{2} \end{aligned}$$

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$$\begin{aligned} \text{or } 2N_2 < N < 2N_2 \\ \Rightarrow N_2 < \frac{N}{2} \end{aligned}$$

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