

# Series

## Some Topics in Elementary STEM

Nguyễn Quân Bá Hồng\*

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### Tóm tắt nội dung

Bài viết này là 1 bài luận ngắn về STEM & cũng là phần Giới thiệu cho bộ sách cùng tên.

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## 1 Preface

[FORWARD VS. PREFACE<sup>1</sup>]:  
*About the Title.*

### 1.1 Dream vs. Reality

## 2 Basic Concepts

**Definition 2.1** (STEM).

## 3 The Elements of Logic

### 3.1 Counterexamples & its Role in Elementary Mathematics – Phản Ví Dụ & Vai Trò Trong Toán Sơ Cấp

**Definition 3.1.** “A counterexample<sup>2</sup> is any exception to a *generalization*. In *logic* a counterexample disproves the generalization, & does so *rigorously* in the fields of *mathematics* & *philosophy*.” – *Wikipedia/counterexample*

“In mathematics, the term “counterexample” is also used (by a slight abuse) to refer to examples which illustrate the necessity of the full hypothesis of a theorem. This is most often done by considering a case where a part of the hypothesis is not satisfied & the conclusion of the theorem does not hold.” – *Wikipedia/counterexample*

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\*Independent Researcher, Ben Tre City, Vietnam  
e-mail: [nguyenquanbahong@gmail.com](mailto:nguyenquanbahong@gmail.com); website: <https://nqbh.github.io>.

<sup>1</sup>**preface** /ˈprefəs/ [n]

<sup>2</sup>**counterexample** /ˈkaʊntərɪɡzɑːmpl/, /ˈkaʊntərɪgzæmpl/ [n] **counterexample (to something)** an example that provides evidence against an idea or theory.