Why Mathematics - A Formal take on Mathematics

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What is Mathematics - My Take?

I would define mathematics as 'A **formal system** used to define solve and explains phenomena problems around us' .A phenomena is something in question. A problem is a gap between between you, and the objective(end goals).

Such example are combustions.
The term **formal** is derived form the word **form** which means being structured.

A system is collection of components working together to achieve a overall outcome. An example of system included, but are not limited to:

- The respiratory system - How an entity inhales and exhales air transforming oxygen into carbon dioxide.
- The digestive system - How an entity process the food and transfer it to energy within the human body.
- A system with in car - How a car engine works from when you start it, driving off , to when you stop it and all it moving components.

Our Mathematical Universe

A problem shared is not always a problem solved. Before a problem must be solved it must be defined. We use maths to define ,and solve many related problems and subproblems in our mathematical ,and physical world. We use check our work against the system we invented, and formally defined.

These structure/form is rigours and intertwined in the world around us. This abstract constructs are the foundation of creative problem solving merited by the system that the mathematician creates to solve his/her problem. Phenomena can be explain away my many unjustified reason.

However a formal system of reasoning is used in maths and physics to disassemble unjustified claims. The formal systems are construct of how the thing in question works. Mathematics is not just about numbers, it serves a foundation with a diverse set of branch to solve problem in many other domains industry validated by the system it was defined in.

Mathematics is not about throwing statements, it is about the justification and core ideas principles behind those statements. It is the foundation used in physics when people says if you

if you are good at maths you are good in physics.

Was Mathematics Discovered or Invented?

Maths is a system used to explain the phenomena. In my opinion, maths was invented to solve many problems governed by the time/space and casualty of that mathematical universe filled with it own set of constructs.

These means in a different mathematically universe, the rules that govern it will be different.

Mathematical System are not perfect.

Raytracing is a technique used to render realistic material and environment. It is governed by the Mathematics of our universe and is simulated by computers. A fundamental reason is why Mathematics is not perfect is due to the rule that introduces new problems that is beyond the confines of a great never perfect system.
As a creative problem solvers, we create models. A mathematician must recognize these limitation of such system and know when to diverge ,and solve the problem in an unconventional manner. This is what mathematician noticed.

A ray does not have slope-intercept form in 3D.

Reintroduction to maths
Numbers are symbols.