

= What If ? : Serious Scientific Answers to Absurd Hypothetical Questions =

What If ? : Serious Scientific Answers to Absurd Hypothetical Questions is a non @-@ fiction book by Randall Munroe in which he answers hypothetical science questions sent to him by readers of his webcomic , xkcd . The book contains a selection of questions and answers originally published on his blog What If ? , along with several new ones . The book is divided into several dozen chapters , most of which are devoted to answering a unique question . What If ? was released in September 2 , 2014 and was received positively by critics .

= = Conception of the blog = =

In the introduction section of the book , Randall Munroe recounts wondering as a child whether " there were more hard things or soft things in the world , " concluding that " the world contained about three billion soft things and five billion hard things . " The conversation that was produced by this question impressed Munroe 's mother to such a degree that she wrote it down . Though Munroe later stated this his question was rather meaningless , he used it as an example of how " thoroughly answer [ing] a stupid question can take you to some pretty interesting places " .

Since 2012 , Munroe has been answering unusual questions sent in by readers of xkcd on his blog What If ? . The concept was inspired by a weekend program organized by the Massachusetts Institute of Technology in which volunteers can teach classes to groups of high school students on any chosen subject . Munroe signed up after hearing about it from a friend and decided to teach a class on energy . Though the lecture felt " dry " at first , once Munroe started bringing up examples from Star Wars and The Lord of the Rings , the students became more excited . The entire second half of the class was eventually spent solving mathematical and physics problems . Munroe wrote the first entries a few years before the start of the blog , based on questions he was asked that day .

Because he was delayed in getting the website online , Munroe had a lot of time thinking about the design of the blog . He eventually chose to display his entries as individual pages rather than using an infinite scrolling page , as he considers the latter more difficult to digest . Munroe usually chooses questions he already knows something interesting about , or after reading a scientific paper , he keeps an eye out for questions in which he can bring it up . Munroe has said that the volume of questions has been high enough that it is impossible to read all of them . Answering a question and writing a post takes him about a day of solid work .

= = Production = =

Munroe announced in March , 2014 that he had signed a deal with publisher Houghton Mifflin Harcourt to compile a large number of his What If ? entries into a book . What If ? : Serious Scientific Answers to Absurd Hypothetical Questions would eventually be released in September that year .

The What If ? book contains a selection of questions and answers from the original blog , as well as nineteen new ones . Furthermore , Munroe selected a few unanswered questions from his inbox and collected those in separate sections in the book . Alt text , which was commonly used for illustrations on the original blog , was omitted from the book in many cases , though is sometimes included as small captions underneath the images . Instead , Munroe has added footnotes to the essays in the book to inform or entertain the reader . The cover of the book depicts a Tyrannosaurus rex being lowered into a Sarlacc from Star Wars , a topic not covered in the book .

What If ? is Munroe 's second published book , his first being XKCD : Volume 0 , a curated collection of xkcd comics released in 2009 . Munroe released a third book , titled Thing Explainer , in 2015 .

= = Content = =

What If ? is mainly composed of answers Munroe gives to readers ' hypothetical questions on

various scientific topics . The questions tend to be rather unusual , assuming an improbable scenario and inquiring a logical conclusion to the situation . The first question Munroe answered for the blog was the following :

What would happen if you tried to hit a baseball pitched at 90 % the speed of light ?

Using mathematics and physics , Munroe concluded such a situation would result in a large explosion . What If ? approaches its subject matter with a sense of wit and sometimes makes use of approximations to answer questions that seem impossible to solve . Most questions demand assumptions and cross @-@ disciplinary science skills to answer , resulting in " back @-@ of @-@ the @-@ envelope " calculations . What If ? is interspersed with " charmingly @-@ amateur " stick figure illustrations .

The book also features periodic sections titled " Weird (and Worrying) Questions from the What If ? Inbox " , which are short collections of questions Munroe had not answered because he " don 't want to think about that " . In an interview , Munroe stated that he " never got past the initial mental image " of the question " How cold would your teeth have to get in order for a cup of hot coffee to make them shatter on contact ? "

= = Reception = =

The book was received positively by critics . Ethan Gilsdorf of the Boston Globe stated that " it ? s fun to watch as Munroe tackles each question and examines every possible complication . " According to Gilsdorf , What If ? gives a view into " Munroe ? s playful yet existentially @-@ tinged worldview " by contrasting cataclysmic scenarios with more heady ideas , such as examining the effects of a magnitude minus @-@ 7 Richter scale earthquake . The Huffington Post remarked that " What makes Munroe 's work so fantastic is a combination of two elements : his commitment to trying to answer even the weirdest question with solid science , and his undeniable sense of humor . " Rhett Allain of Wired praised What If ? because even his 12 @-@ year old son was able to enjoy it , though he found a minor error in one of the sections .

Sam Hewitt of Varsity and Marla Desat of The Escapist noted that the first print run had some issues processing mathematical symbols , as a square box was displayed where a delta is supposed to be printed .

What If ? was released on September 2 , 2014 and reached the top of the New York Times bestsellers list on September 21 , while getting featured as the " Amazon Best Book of the Month " . The book was a Goodreads Choice Awards " Best Nonfiction " nominee in 2014 as well .