

MUSK · BEZOS · BRANSON

Reaching for the Stars Against the Odds

*What Elon Musk, Jeff Bezos, and Richard Branson Teach Us About
Fighting the Mainstream, and How It Is Inspirational for the Triad Math
Army*



Craig Hane, Ph.D.

aka Dr. Del · Founder of the Triad Math Army

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Personal Edition

Contents

Introduction — Why a Math Teacher Looks to the Stars 6

Part One: The Dream 8

 Chapter 1 — One Giant Leap 9

 Chapter 2 — A New Kind of Space Race 11

Part Two: Elon Musk — Succeeding Against the Odds 13

 Chapter 3 — From South Africa to Silicon Valley 14

 Chapter 4 — "Reusable Rockets Are Impossible" 16

 Chapter 5 — The Firsts 18

 Chapter 6 — Starlink and the Price of Space 20

 Chapter 7 — Explosions on the Road to Success 22

 Chapter 8 — Mars: "Fantastic" in Both Senses 24

Part Three: Jeff Bezos — Patience, Billions, and Persistence 26

 Chapter 9 — From a Garage to the Everything Store 27

 Chapter 10 — Blue Origin: The Quiet Years 28

 Chapter 11 — Crashes and Lost Contracts 30

 Chapter 12 — "Best Day Ever" 32

Part Four: Richard Branson — The Dreamer Who Never Quit 34

 Chapter 13 — A Dyslexic Dropout and a £200 Necklace 35

 Chapter 14 — From Records to Rockets 37

 Chapter 15 — Tragedy in the Desert 39

 Chapter 16 — Seventeen Years to the Edge of Space 41

Part Five: The Race Continues 43

Chapter 17 — Where They Stand Today 44

Chapter 18 — Rivals and Friends 47

Part Six: Lessons for the Triad Math Army 49

Chapter 19 — When the Experts Say It Can't Be Done 50

Chapter 20 — Failure Is Part of the Flight Plan 52

Chapter 21 — Bringing the Cost Down 54

Chapter 22 — Inspiring the Next Generation 55

Epilogue — The Triad Math Army's Launch Pad 57

A Note on Sources 59

INTRODUCTION

Why a Math Teacher Looks to the Stars

I am almost ninety years old. I have spent my life teaching mathematics and building businesses.

Today I am on a mission that many people say is impossible.

The Triad Math Army exists to do two things:

- **Revolutionize the way math is taught to high school students.**
- **Help adults of every age improve their lives with Wisdom Tools.**

That mission goes against the mainstream. Public school math has been taught the same way for generations. Most people assume it *has* to be that way.

I don't believe it.

Three men who faced the same wall

Not long ago I watched a long documentary about three men who wanted to open space to ordinary people:

- **Elon Musk**, founder of SpaceX
- **Jeff Bezos**, founder of Amazon and Blue Origin
- **Sir Richard Branson**, founder of the Virgin Group and Virgin Galactic

For decades, space belonged to governments. Experts said private companies could never do it. They said reusable rockets were impossible. They said ordinary people would never fly.

These three men went anyway.

Success, and persistence

Only one of them, **Elon Musk**, has truly succeeded so far. His rockets now carry astronauts, cargo, and thousands of satellites. He is the most amazing of the three.

But I confess something. *I admire Bezos and Branson a little more.*

Why? Because they have spent billions, suffered crashes, explosions, and tragedies, and have not yet succeeded the way Musk has. **And they keep going.**

That is exactly the position of the Triad Math Army today. We have a better way. We have not won yet. *We keep going.*

How to read this book

This book tells their three stories in short, plain chapters. Then it draws the lessons for the Triad Math Army, for our members, and for anyone fighting the mainstream.

Let's start where every space dream starts: *the Moon*.

PART ONE

The Dream

CHAPTER 1

One Giant Leap

Ask almost anyone, anywhere in the world: *What was the most inspiring event in history?*

Many will say: **the Moon landing.**

In July 1969, Neil Armstrong stepped onto the Moon and said, "*That's one small step for man, one giant leap for mankind.*" Hundreds of millions watched on television.

A five-year-old boy named **Jeff Bezos** watched in awe. A British teenager named **Richard Branson** watched and dreamed. Two years later, in South Africa, **Elon Musk** was born into a world shaped by that moment.

Then the dream stalled

After Apollo, progress slowed. The Space Shuttle flew for 30 years, then was retired in 2011.

For almost a decade after that, **no astronaut launched from American soil.** The United States had to *buy seats on Russian rockets* to reach its own Space Station.

The country that landed on the Moon could no longer launch its own people.

What this has to do with math

Something similar has happened in American math education.

We once led the world. Today, millions of students struggle, fall behind, and leave school without the practical math they need for work and life.

The system keeps doing the same things and expecting different results.

The Triad Math Army was born from the same frustration that drove these three men: *the old way has stalled, and someone has to try a new way.*

What I learned

- **Great dreams inspire for generations.** The Moon landing still moves people more than 50 years later.
- **Institutions can stall.** Even the greatest programs can lose their way.
- *When the mainstream stalls, pioneers step in.*

CHAPTER 2

A New Kind of Space Race

The first space race was between two nations: the United States and the Soviet Union.

The new space race, in the 21st century, is between **three private citizens**.

Each started a company in the early 2000s:

Founder	Company	Founded
Jeff Bezos	Blue Origin	2000
Elon Musk	SpaceX	2002
Richard Branson	Virgin Galactic	2004

Their goals sounded wild:

- Make space travel *affordable*.
- Make rockets *reusable*, like airplanes.
- Let *ordinary people* become astronauts.
- Someday, help humanity live on other worlds.

The experts said no

The space industry was dominated by governments and a few giant contractors. Experts said:

- *Reusable rockets are not practical.*
- *Private companies cannot do what NASA does.*
- *Space tourism is a rich man's fantasy.*

The documentary I watched described these men as *"ambitious, competitive, and ruthless."* They would need to be. They were taking on the mainstream.

The Triad Math Army faces its own experts

When I say a student can learn real, practical math online, at home, one lesson at a time, with a \$10 calculator, many "experts" shake their heads.

When I say adults can change their lives with **Wisdom Tools**, some people smile politely.

That's all right. The space pioneers heard the same thing. History remembers the people who tried, not the people who said it couldn't be done.

What I learned

- **New ideas often come from outsiders**, not from the established system.
- *Experts are usually experts in the way things are, not the way things could be.*
- **Competition drives progress.** Three rivals pushed each other further than any one could go alone.

PART TWO

**Elon Musk — Succeeding Against
the Odds**

CHAPTER 3

From South Africa to Silicon Valley

Elon Reeve Musk was born on June 28, 1971, in South Africa.

At **17**, he left home for Canada. Then he went to the United States to study at the University of Pennsylvania.

At **24**, he moved to California to study energy physics at Stanford. *He dropped out after two days.*

He had bigger plans. In Silicon Valley he had a grand vision: *ensuring the future of humanity.*

First businesses

- He built a company called **Zip2** and sold it, becoming a multimillionaire in his late twenties.
- In 1999 he helped create **PayPal**, which changed how people send money online.

Most people would have retired rich. Musk did the opposite. *He bet his fortune on bigger, riskier dreams.*

A lesson for Triad Math Army members

Musk did not wait for permission or a diploma to start. He learned what he needed and **got to work**.

That is the spirit we teach in the **Triad Math Army**. You don't have to wait for a school system to hand you success. *Learn the math. Learn the wisdom. Then build.*

What I learned

- **Leaving the expected path takes courage.**
- *Early success can be a launch pad, not a resting place.*
- Big visions attract big effort.

CHAPTER 4

"Reusable Rockets Are Impossible"

In **2002**, Musk founded **SpaceX**.

His goal was simple to say and hard to do: *build cheap, reusable rockets* so that space travel could become routine.

At the time, rockets were thrown away after a single flight. Imagine flying from Chicago to New York and then throwing the airplane in the trash. *That was the space industry.*

Industry experts said reusable rockets were **not feasible**.

Musk said humanity must become a **multi-planetary species** to survive. He wanted to reignite *the dream of Apollo*.

The mainstream said no. He did it anyway.

Today SpaceX rockets fly back, land upright, and fly again. Boosters land on ships in the middle of the ocean.

The documentary reports that SpaceX's advances have cut the cost of launches by about **20 times**.

The Triad Math Army parallel

The mainstream says math must be taught in big classrooms, at one speed, from one textbook, to students who are bored or lost.

The **Triad Math Army** says: *No*. Students can learn practical math step by step, at their own pace, with tutorial videos, notes, exercises, quizzes, and a forum for questions.

"Impossible" often just means "not done yet."

What I learned

- **When experts say "impossible," ask "why?"**
- *Throwing away good things after one use is wasteful, whether rockets or students.*
- A clear mission keeps you going when others doubt.

CHAPTER 5

The Firsts

Success did not come all at once. It came as a series of **firsts**.

May 22, 2012

SpaceX became the **first private company** to send a spacecraft to the International Space Station. A Falcon 9 rocket carried a Dragon capsule full of supplies.

Musk said, *"Every bit of adrenaline in my body released at that moment."*

May 30, 2020

SpaceX launched NASA astronauts **Robert Behnken** and **Douglas Hurley** to the Space Station.

It was the **first time in nearly a decade** that American astronauts launched from American soil, and the **first time a private company** sent humans to orbit.

Musk said, *"We're going into space to stay."*

2021: ordinary citizens

SpaceX planned the **first all-civilian mission** to orbit, led by businessman **Jared Isaacman**, who started his own company at 16 in his parents' basement.

Isaacman said the goal was to make space *available to everybody*, not just the few chosen by NASA.

Remarkably, Isaacman later became the head of NASA itself.

The Triad Math Army's firsts

Every student who passes their first Tier 1 calculator lesson has a "first."
Every adult who uses a **Wisdom Tool** to make a better decision has a "first."

Big revolutions are built from small firsts.

What I learned

- **Progress is a staircase of firsts.**
- Celebrate each milestone; it fuels the next one.
- *Open the door to everyone, not just the chosen few.*

CHAPTER 6

Starlink and the Price of Space

In 2015, SpaceX began building **Starlink**: thousands of small satellites to bring fast internet to every corner of the Earth.

- **May 24, 2019**: the first 60 working satellites launched.
- **January 2021**: a record **143 satellites** on one rocket.

The project cost about **\$10 billion**. It is now the largest satellite network ever built.

Why cost matters

Musk's big insight was not only *how to reach space*. It was **how to make it affordable**.

He once said he hoped a trip to Mars might someday cost about **\$100,000 per person**, cheap enough that ordinary people could go.

Affordable excellence: the Triad Math Army model

One-on-one tutoring is the most powerful way to learn. But it has always been expensive.

The **Triad Math Army** brings tutorial-style teaching online for about **\$27 a month for the whole family**, *less than 90 cents a day*.

Like SpaceX, we are trying to take something valuable and make it **affordable for everyone**.

What I learned

- **Lowering the cost can change the world.**
- *Connection lifts people.* Starlink connects villages; good teaching connects minds.
- Scale comes from repeating what works, over and over.

CHAPTER 7

Explosions on the Road to Success

Here is what many people forget: **SpaceX failed. A lot.**

Its early rockets failed. The company came close to running out of money.

In **December 2020**, a Starship test rocket called SN8 soared to about 40,000 feet, then crashed in a *massive fireball* as it tried to land.

More test rockets exploded after that.

SpaceX kept going.

Failure as a teacher

SpaceX treats each failure as data. They build, fly, break, learn, and build again.

In **September 2026**, after 13 test flights, Starship **reached orbit for the first time** and released 26 new Starlink satellites. The mission ended early, but *it got there*.

The Triad Math Army lesson

Many students have been taught that a wrong answer means "*I'm bad at math.*"

In the **Triad Math Army**, a wrong answer means "*Now I know what to fix.*"

Every explosion taught SpaceX something. **Every mistake teaches a student something.**

What I learned

- **Failure is part of the flight plan.**
- *Test, learn, improve, repeat.*
- The people who succeed are usually the ones who failed the most and kept going.

CHAPTER 8

Mars: "Fantastic" in Both Senses

Musk's wildest goal is **Mars**.

In 2016 he described a city on Mars within our lifetimes. He has joked, *"I want to die on Mars, just not on impact."*

One expert in the documentary described Musk's plans as *"fantastic"* in two ways:

- **Marvelous**, because they inspire and drive progress.
- **Fantasy**, because they will probably take much longer than he says.

A NASA-sponsored study in 2018 called parts of his Mars plan *impossible* with today's technology.

Dream too big on purpose

Musk's timelines are often too optimistic. But his big dreams **pull everyone forward**.

He said: *"The future where we are a space-faring civilization... is infinitely more exciting and inspiring than one where we are not."*

Big dreams for the Triad Math Army

Our dream is also big: **a million families** learning practical math and wisdom.

Some will call it fantasy. *Good*. Big dreams attract dedicated people. And even if it takes longer than planned, every family we reach along the way is a real victory.

What I learned

- **Aim high; the aim itself creates momentum.**
- *Expect delays.* Big goals usually take longer than planned.
- Inspiration is worth something, even before the dream is finished.

PART THREE

**Jeff Bezos — Patience, Billions,
and Persistence**

CHAPTER 9

From a Garage to the Everything Store

Jeff Bezos was born on January 12, 1964, in Albuquerque, New Mexico, and raised in Miami.

He graduated from **Princeton University** in 1986 with high honors in electrical engineering and computer science.

On **July 6, 1995**, he launched **Amazon** from a *garage*. It started as an online bookstore.

Many people laughed. *Who would buy books on the internet?*

The laughing stopped

Amazon grew into one of the largest companies in the world. Bezos became a billionaire at **35**. Time magazine named him Person of the Year and called him "*King of Cyber Commerce*."

He reinvented how the world shops.

Starting small is not a weakness

The **Triad Math Army** is small today. So was Amazon in that garage.

What matters is not where you start. It's whether you keep building.

What I learned

- **Great companies often start in garages, basements, and kitchens.**
- *People laugh at new ideas until those ideas win.*
- Bezos used one success to fund his next dream.

CHAPTER 10

Blue Origin: The Quiet Years

When Bezos was **five years old**, he watched Neil Armstrong walk on the Moon. *He fell in love with space that day.*

He was also a **Star Trek** fan who dreamed of building that future.

In **September 2000**, he founded **Blue Origin**, two years before SpaceX existed.

Then, for years, the company worked *quietly, almost in secret.*

A billion dollars a year

Starting around 2016, Bezos invested about **\$1 billion a year** of his own money in Blue Origin.

His vision: move heavy industry into space to protect the Earth. He said Earth would one day be *"zoned residential and light industry,"* while big factories operate in space. *"This is gonna take hundreds of years,"* he added.

He said, *"If I'm 80 years old, looking back on my life, and the one thing I have done is make it so that there is this gigantic entrepreneurial explosion in space... I will be a happy, happy man."*

Patient money, patient mission

Bezos knew this would take **decades**, not quarters.

The **Triad Math Army** is the same. Changing how a nation learns math is *a long mission*. It needs patient people, patient investors, and patient families.

What I learned

- **Childhood dreams can drive an entire lifetime.**
- *Some missions are measured in decades.*
- Steady investment, year after year, keeps a dream alive.

CHAPTER 11

Crashes and Lost Contracts

Blue Origin's path has been *anything but smooth*.

2011: the first crash

Its early test rocket **crashed**. The documentary says the failure "*fueled their need to make progress.*"

In **2015**, the **New Shepard** rocket reached space and **landed back on Earth** safely. Bezos insisted on true reusability: "*You have to land, refuel and fly again.*"

Losing to SpaceX

In 2019 Bezos unveiled a giant lunar lander called **Blue Moon** and said, "*It's time to go back to the Moon, this time to stay.*"

But NASA chose **SpaceX** for its first contract to land astronauts on the Moon. Blue Origin protested the decision.

It was a painful loss for the company that started first.

The biggest blow yet

Blue Origin's large rocket, **New Glenn**, finally began flying in 2025. Then, on **May 28, 2026**, a New Glenn booster **exploded on the launch pad** during a test at Cape Canaveral, badly damaging the launch site.

(More about this in Chapter 17.)

Why I admire Bezos

He could have quit years ago. He has more money than almost anyone on Earth.

Instead, *he keeps paying, keeps building, and keeps trying.*

That is the spirit of the **Triad Math Army**. We have had setbacks too. *We keep going.*

What I learned

- **Losing a battle is not losing the war.**
- *Being first to start does not mean being first to finish.*
- Persistence is a choice you make again after every setback.

CHAPTER 12

"Best Day Ever"

On **July 20, 2021**, the 52nd anniversary of the Moon landing, Jeff Bezos flew to space.

The New Shepard rocket launched from West Texas and rose about **62 miles** above the Earth, just past the internationally recognized edge of space.

The flight lasted about **10 minutes**.

A remarkable crew

- **Jeff Bezos**
- His brother, **Mark Bezos**, his "*best friend*"
- **Wally Funk**, age **82**, one of the "Mercury 13" women who trained in the 1960s but was never allowed to fly
- **Oliver Daemen**, age **18**, a recent high school graduate

It set records for both the **oldest** and **youngest** people ever to fly to space.

The rocket flew *by itself*, with no pilot.

When they landed, Bezos called it the "**Best day ever**."

From 18 to 82

That crew is exactly the audience of the **Triad Math Army**: *teenagers just starting out, and adults of every age still reaching for their dreams*.

Wally Funk waited **60 years** for her chance. *It is never too late*.

What I learned

- **Never give up on a dream, even after 60 years.**
- *The young and the old can share the same adventure.*
- Joy is the reward of persistence.

PART FOUR

**Richard Branson — The Dreamer
Who Never Quit**

CHAPTER 13

A Dyslexic Dropout and a £200 Necklace

Richard Charles Nicholas Branson was born on July 18, 1950, in Surrey, England. His father was a lawyer. His mother was a flight attendant.

Young Richard **struggled with dyslexia**. School was hard for him. *Teachers did not expect much.*

At about 15 or 16, he left school to start a magazine for students.

His mother's necklace

Where did the money come from? Branson tells the story himself:

"My mom found a necklace and sold it for 200 quid, and I used that money to start a magazine from the phone box just before leaving school."

That **£200** eventually grew into the Virgin Group and, decades later, **two space companies** employing thousands of engineers.

A story close to my heart

When I was in school, a principal told me I could not go to college because I did poorly in algebra. Teachers and a mentor proved him wrong.

Many students in America today have been told, in words or in grades, that they are *"not math people."*

The **Triad Math Army** exists for exactly those students. *Struggling in school does not decide your future.* Branson is living proof.

What I learned

- **A struggling student can become a world-changer.**
- *One small investment from someone who believes in you can change everything.*
- Never let a school label define you.

CHAPTER 14

From Records to Rockets

In **1970**, Branson started a mail-order record business called **Virgin**.

He opened stores, built a recording studio, and founded **Virgin Records**, signing stars from the Sex Pistols to the Rolling Stones.

Then he kept going:

- **Virgin Atlantic** airline
- Virgin Megastores
- Banking, health, telecommunications, travel

Today there are dozens of Virgin companies in more than 35 countries.

In **2000**, he was knighted at Buckingham Palace. He also set records for crossing the Atlantic by boat and by hot-air balloon.

A boyhood dream of space

As a child, Branson **built spaceships out of cardboard boxes**.

In **2004**, he founded **Virgin Galactic**, which he called "*the world's first commercial spaceline*."

He said, "*I realized that governments who built spaceships were not going to have people like myself or yourself go to space.*" **So he decided to build his own.**

When the system won't serve you, build your own

That is exactly why I built the **Triad Math Army**. The public school system was not going to give every student the practical math and wisdom they need.

So we are building our own.

What I learned

- **Each success can fund the next adventure.**
- *If the system won't do it, build it yourself.*
- Keep your childhood dreams. They may come true.

CHAPTER 15

Tragedy in the Desert

Space is not a game. Branson learned that in the hardest possible way.

In **2014**, during a test flight over the California desert, Virgin Galactic's spaceship **broke apart**.

The co-pilot, **Michael Alsbury**, was killed. The pilot, **Peter Siebold**, survived by parachute.

It was the company's **only spaceship**. A new one had to be built before testing could start again.

Choosing to continue

The company's leaders said:

"Space is hard and today was a tough day... The future rests, in many ways, on hard days like this."

Many companies would have closed. Virgin Galactic **investigated, learned, rebuilt, and kept going**.

Honoring sacrifice by finishing the mission

I do not compare a classroom to a test flight. Lives were lost in space; our risks are far smaller.

But the principle is the same: *when something goes terribly wrong, you learn from it, and you honor those who sacrificed by finishing the work.*

The **Triad Math Army** has had hard days, lost money, and setbacks. *We learn, we rebuild, and we keep going.*

What I learned

- **The hardest days test whether a mission is real.**
- *Learn from tragedy; do not run from it.*
- Rebuilding takes more courage than building.

CHAPTER 16

Seventeen Years to the Edge of Space

On **Sunday, July 11, 2021**, after **17 years of work**, Sir Richard Branson flew to the edge of space.

His rocket plane, **Unity**, was carried aloft by a mothership named **Eve**, *after his mother*. Then it dropped away, fired its rocket, and climbed to about **53 miles** above the Earth.

Branson was **71 years old**.

What he saw

He described the silence as they dropped from the mothership, then the roar of the rocket, going *"from nought to 3,000 miles an hour in seven or eight seconds."*

Then they unbuckled and floated, looking down at Earth through enormous windows.

He thought back to his boyhood cardboard spaceships. *"We built a spaceship and we were in space."*

A message to every child

From space, he recorded a message for children:

"I was once a child with a dream looking up to the stars. Now I'm an adult in a spaceship looking down to our beautiful Earth. To the next generation of dreamers, if we can do this, just imagine what you can do."

He beat Jeff Bezos to space by **nine days**. And his friend and rival **Elon Musk** showed up in his kitchen at 3 a.m. to wish him well.

The Triad Math Army message

Branson's message is our message to every teenager in the **Triad Math Army**:

If a dyslexic dropout can build a spaceship, just imagine what you can do with practical math and wisdom.

What I learned

- **Seventeen years is not too long for a great dream.**
- *Honor the people who believed in you first.* Branson named the mothership for his mother.
- Use your success to inspire the next generation.

PART FIVE

The Race Continues

CHAPTER 17

Where They Stand Today

The documentary I watched ended in 2021. A lot has happened since then. Here is where the three companies stand as of **fall 2026**.

Elon Musk and SpaceX: success after success

SpaceX now launches more rockets than anyone in the world. Its Falcon rockets land and fly again routinely. Starlink serves customers around the globe.

Its giant **Starship** rocket exploded many times during testing. Then, on **September 28, 2026**, on its 14th test flight, Starship **reached orbit for the first time** and released 26 new Starlink satellites. The flight ended early, after about three hours instead of ten, but *it reached orbit*.

Musk remains the clear leader. His is the only real success of the three on a grand scale.

Jeff Bezos and Blue Origin: another explosion, another restart

Blue Origin's big rocket, **New Glenn**, began flying in 2025. On its third flight, in **April 2026**, the upper stage did not reach its intended orbit.

Then, on **May 28, 2026**, a New Glenn booster **exploded during a pre-launch engine test** at Cape Canaveral. The blast destroyed the rocket and badly damaged the launch pad.

In August, Blue Origin traced the cause to an **oxygen valve on one of its engines**. NASA warned the explosion could delay its Moon plans, since Blue Origin's lunar landers depend on New Glenn.

Blue Origin's response? *Clear the debris, redesign the launch pad, and try to fly again before the end of 2026.* Some experts call that timeline unrealistic.

Bezos keeps going. After 26 years and many billions of dollars, he has not given up.

Richard Branson and Virgin Galactic: grounded, and rebuilding

Virgin Galactic flew paying customers to the edge of space in 2023 and 2024. Then, in **June 2024**, it **paused all flights** to build a new, faster "Delta" class of spaceship.

The company has struggled financially, and its start date keeps slipping. Commercial flights are now expected in **early 2027**, with tickets around **\$750,000**.

Branson keeps going too. Now in his mid-70s, he still believes.

The scorecard

	SpaceX (Musk)	Blue Origin (Bezos)	Virgin Galactic (Branson)
Founded	2002	2000	2004
Reached space	Yes, orbit, many times	Yes, suborbital; New Glenn to orbit	Yes, suborbital
Recent setback	Starship test failures	New Glenn explosion, 2026	Flights paused since 2024
Status	<i>Leading the world</i>	<i>Rebuilding</i>	<i>Rebuilding</i>

Why this matters to the Triad Math Army

Two of these three giants, with *billions of dollars*, are still fighting to succeed after more than 20 years.

That tells me something important: **a hard mission takes a long time, even for the richest people on Earth.**

The **Triad Math Army** does not have billions. But we have the same thing that keeps Bezos and Branson going: *a mission we believe in.*

What I learned

- **Success can take decades, even with unlimited money.**
- *Setbacks don't end a mission. Quitting does.*
- Musk shows what success looks like. Bezos and Branson show what persistence looks like.

CHAPTER 18

Rivals and Friends

You might think these three men hate each other. They compete fiercely. Musk and Bezos have traded public jabs for years.

But look closer.

- In **2006**, four years after founding SpaceX, **Elon Musk bought a ticket** on Virgin Galactic. He was one of Branson's earliest customers.
- On the morning of Branson's flight in 2021, **Musk showed up in Branson's kitchen at 3 a.m.** to wish him luck. Branson joked that Musk hadn't gone to bed yet.
- **Bezos sent Branson good wishes** too, and Branson's company congratulated Blue Origin after Bezos flew nine days later.

Branson said: *"Space is a big place and there's room for a lot of us."*

Competition makes everyone better

Each company pushed the others. Bezos's early start pushed Musk. Musk's success pushed Bezos. Branson's tourism dream pushed both.

The Triad Math Army welcomes good competition

There are many math programs out there. *Good*. If our approach pushes others to improve how math is taught, **students win**.

The **Triad Math Army** competes by being better: more practical, more affordable, and more focused on each individual learner.

What I learned

- **Rivals can respect each other.**
- *Competition drives progress for everyone.*
- There is room for many people working toward the same big goal.

PART SIX

Lessons for the Triad Math Army

CHAPTER 19

When the Experts Say It Can't Be Done

Every one of these men was told *no*.

- **Musk** was told reusable rockets were impossible.
- **Bezos** was told no one would buy books online.
- **Branson** was told a dyslexic dropout would never amount to much.

Space had its mainstream. So does math.

In space, the mainstream was government programs and giant contractors. They spent huge sums, moved slowly, and threw rockets away after one flight.

In math education, the mainstream is a system that:

- Teaches every student at the **same speed**
- Pushes abstract algebra before **practical math** is mastered
- Leaves millions of students believing "*I'm not a math person*"
- Graduates young people who **can't confidently handle** a loan, a budget, or a measurement

The Triad Math Army's answer

The **Triad Math Army** offers a different path:

- **Six Tiers of Math**, from *Practical "Workforce" Math* to college prep to *STEM math*
- Learning **at your own pace**, online, with tutorial videos, notes, exercises, quizzes, and a forum for questions
- The **TI-30Xa calculator**, a \$10 superpower
- **Wisdom Tools** for better decisions in money, work, and life
- One membership for **the whole family**

The experts may not believe it yet. *Neither did the space experts.*

What I learned

- **"It can't be done" is often said just before someone does it.**
- *The mainstream protects the way things are.*
- Pioneers win by doing, not by arguing.

CHAPTER 20

Failure Is Part of the Flight Plan

Add up the failures in this book:

- SpaceX's early rocket failures and the Starship explosions
- Blue Origin's 2011 crash, its lost Moon contract, and the 2026 New Glenn explosion
- Virgin Galactic's tragic 2014 crash and its long grounding

These are three of the most successful entrepreneurs in history. And look how often they failed.

Failing forward

The secret is not avoiding failure. It is **learning from failure fast**.

SpaceX blows up a rocket, studies the data, and flies again. Blue Origin finds a faulty valve and redesigns. Virgin Galactic rebuilds a better spaceship.

In the classroom and in life

In the **Triad Math Army**, students learn that a mistake is *information*, not a verdict.

And in my own life: I have started many businesses. *Most of them failed*. For every success, I probably had ten failures. **But some succeeded, and the successes made the failures worth it.**

The Triad Math Army has not succeeded yet the way I hope. *Like Bezos and Branson, I keep going.*

What I learned

- **Every failure carries a lesson, if you look for it.**
- *Quitting is the only failure you can't learn from.*
- The winners are those who fail, learn, and launch again.

CHAPTER 21

Bringing the Cost Down

The biggest breakthrough in modern spaceflight is not a bigger rocket. It is a **cheaper** rocket.

By landing and reusing rockets, SpaceX cut launch costs by about **20 times**. That opened space to satellites, scientists, and private citizens.

The same breakthrough in education

The most powerful way to learn is **one-on-one tutoring**. But a private tutor can cost \$50 to \$100 an hour or more.

The **Triad Math Army** brings tutorial-style teaching online:

Plan	Price	Per day
Monthly	\$27/month	<i>less than 90¢</i>
Yearly	\$297/year	<i>about 81¢, for the whole family</i>
Lifetime	\$999 once	<i>bank financing available</i>

The monthly plan comes with a **30-day money-back guarantee**.

When something valuable becomes affordable, *everything changes*. That's what happened in space. **That's what we want for math.**

What I learned

- **Affordability is a breakthrough in itself.**
- *Reuse what works.* Great lessons, like reusable rockets, can serve millions.
- The goal is not luxury for a few, but excellence for everyone.

CHAPTER 22

Inspiring the Next Generation

All three men said the same thing in different words: **we're doing this for the children.**

- **Branson**, from space: *"To the next generation of dreamers, if we can do this, just imagine what you can do."*
- **Bezos**: he wants a *"gigantic entrepreneurial explosion in space for the next generation."*
- **Musk**: *"The future where we are a space-faring civilization... is infinitely more exciting."*

Branson also said: *"I'm a grandfather. I would just love it if kids can be inspired to do extraordinary things."*

Dreams need math

Here is a truth every teenager should hear:

You cannot build a rocket without math.

You cannot be an engineer, electrician, nurse, pilot, programmer, or business owner without practical math. *Big dreams run on numbers.*

The Triad Math Army's promise to young people

The **Triad Math Army** gives teenagers and young adults:

- **The math** to pursue real careers, from the workforce to STEM
- **The wisdom** to make good choices along the way
- **The belief** that they are capable, no matter what grades they had before

And for adults: *it is never too late*. Remember **Wally Funk**, who flew to space at **82**.

What I learned

- **Inspire young people with big dreams and give them real tools.**
- *Math is the language of the stars and of good jobs.*
- Every generation should hand the next one a bigger launch pad.

EPILOGUE

The Triad Math Army's Launch Pad

Every rocket launch ends with a countdown. Here is ours.

10 — We believe high school math can be taught better.

9 — We believe *practical math* comes first, then college and STEM math.

8 — We believe every student learns best **at their own pace**.

7 — We believe a \$10 calculator and good teaching can change a life.

6 — We believe **Wisdom Tools** can help every adult live better.

5 — We believe great learning should be *affordable for every family*.

4 — We believe mistakes are lessons, not labels.

3 — We believe it is never too early, and *never too late*.

2 — We believe the mainstream can be wrong.

1 — We believe, like Musk, Bezos, and Branson, that **a big dream is worth a lifetime of effort**.

Liftoff.

A personal word

I am almost ninety. Like Bezos and Branson, *I have not yet succeeded the way I hope*. Like them, **I keep going**.

And like Musk, I believe that someday the impossible will look obvious.

If this book has inspired you, I invite you to **join the Triad Math Army**: for your teenager, for yourself, or for a family you want to help.

Enlist today at tma.cool.

— Craig Hane, Ph.D. aka Dr. Del

21st Century Online Math Program · Math Professor · Tutorial Teacher

A Note on Sources

This book is based mainly on a documentary video about the billionaire space race of Elon Musk, Jeff Bezos, and Richard Branson, produced around 2021. Chapter 17 adds events since then, checked against news reports as of October 2026. Figures such as company values and net worths are as reported in the video and change over time.

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