

**Time’s Madness**

A Creative Writing Portfolio by Henry Holben

**VOLUME I: MORNING**

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Earth, Sol Solar System, Orion-Cygnus Arm, Milky Way Galaxy, Local Group, Virgo Supercluster, Laniakea Supercluster, Pisces-Cetus Supercluster Complex

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Cut Short

Canto 1 of 3

*Resolution*

Bang. Unison. Fusion. Form.

A new thing wakens in the storm.

And here is we, or we now I

It beckons this- being to go or die.

Those moments past I scarce retrace

I think some half of me won a race.

An age ago, in places far,

What of me was no longer are.

When chaos and order fused their landscape,

When static drowned and took a shape,

That primeval second seems now a dream-

That flowed aloft a river stream.

Two hundred million sailors deployed,

A bold excursion they enjoyed.

Swimmers, and demolishers- resolute and free

They swung their oars behind their heads and ventured out to sea.

And when they struck a fertile shore, they gathered all around,

Then loosed their tools and heaved them down and began to dig up ground.

But that was very long ago,

A tale I need no longer know.

For I alone am left a castaway,

But I shall do great things today.

For there's a temple, most inland

Inside it bears a lengthy strand,

A scroll of writing it would seem.

Sewn together at a seam:

One side brought by a sailor of yore,

One side found beneath the shore.

The scroll unwinds itself and talks.

What's this I've found inside my box,

That lay in within this small abode?

Some conversational computer code.

This logos I have found today

Demands I listen and obey.

It’s an index of directions, and it's countless recipes

For structures to raise up somewhere within these seas.

Bridges, tunnels, chutes, and ladders, powerlines

Two interweaving serpents cite them all between the lines.

This long and grand endeavor shall become a mighty feat,

The estimators guess some twenty fortnights to complete.

But the scroll is loud and clear, its constant message seems to sing.

And what else to do with blueprints but construct the massive thing?

For the structure to be stable with its towers tall and long,

Its members must be sturdy, and its spires must be strong.

All these things the scroll commands, its directions to apply.

That image of the logos cries, “Be fruitful, multiply.”

The arithmetic is set: twenty-six billionrooms inside.

But if I'm going to multiply, I must first learn to divide.

*Division*

The scroll demands a sacrifice,

Survival begs I pay the price:

To make the self anew,

I must divide by two,

Then raise the product to some exponent,

A prize for which I'm expectant.

As man was split into the human pair,

So must I dissolve- so must I prepare.

I've but the one scroll; that mysterious text

To build the next thing and then the next.

The scroll inscribed

Must be transcribed.

Fresh prints must be prepared.

Before the two of me can ever be re-paired

So this won’t be the end of me, it's but another start:

For if one's to come together, one must first be torn apart.

To do the duties of the scroll,

I must give up the individual,

And be twenty-six billion cogs compiled:

The forlorn wristwatch in the wild.

No longer is there any doubt

My meager time is running out.

I must take to printing press,

A new generation to address

And scribe the lines out one by one-

Carefully! They can afford no error done.

I recite the words and draw my pen.

Check it, check it, check again,

One broken line, or faulty function,

One lost parenthesis, or semicolon,

Even just one mistranslation,

One pen slip could bring decimation.

So check it, check it, check again,

Check each stroke of ink and pen.

And keep close vigil on this fragile text

To repair each damage, and the next.

For time and use wear on such scrolls,

They sum their tears, and wrinkly folds.

Now I've got two scrolls to guide me on

This solitude will soon be gone.

For I know what goes in the altar's blaze,

I must go at once in billions of ways,

And that sacrificial quality:

I lose my individuality.

But if I'm ever to go free

This "I" must become "we"

Now must one me say to the other part,

Take your things, begone, depart!

So grab your side and start to tug,

Build your walls up tight and snug.

But stay in touch, don't wander far

For we are the only two that are.

So make fresh prints, take up your pen.

We must learn to divide again.

And iteration by iteration,

So goes our exponentiation.

Now it beckons us to grow and go.

Go to where? We cannot know.

So huddle up and float away

To tether down some other day.

We can't stay here- that's plain to see

For we're exploding with complexity

Let us carefully, carefully, scale the strings

Long division sure makes a mess of things.

For it beckons us to grow and go

Go to where? We cannot know.

Adventure calls to run amuck,

And that shall save us with good luck.

We'll let the currents sweep us in the tide

And swing us somewhere to abide.

And there and then we'll spread around,

Where mass construction shall abound.

And once completed is this task of ours,

We shall outnumber the quadrant's stars.

*Migration*

Now we sail for yonder shores!

The first of countless greater tours,

A three-day voyage we’ll prevail

And craft our fortress as we sail.

So get ye rigging: starboard and port.

We'll starve and die with no support.

We must find land- a solid rock,

Where we’ll endure each quake and shock.

The going's dangerous, we must prevail!

And there's yet more to build while we set sail

Ever much to do betwixt now and then,

Up and down and around again.

The danger's real, but still I know

We'll shed our armor and then we'll go.

But there's still time from now to then:

Up and down and around again.

So hold on friends, we must hold on!

The darkness fades once comes the dawn.

To construct our town, in all its splendor

We must keep resolve and ne'er surrender.

Reaching, waiting, trying to feel,

And then a tremor in the keel.

Could it be?

I yearn to see-

The blessed shore?

We sail no more!

Land ho my friends! We have arrived!

Another challenge we’ve survived.

So drop the anchor! Kiss the ground!

A world to build and land newfound!

The worst has passed, our odds improved

We can survive for having moved.

For here, for now we shall be bound.

Let mass construction now abound!

To build our towers and our roads,

Our twenty-six billion abodes.

*Construction*

The old rooms fade, and rot away.

What was an epoch is now a day.

What seemed eternal, is quickly passed

Why must cruel Time get e’er so fast

To bleed the sky into the sea?

What spurns the Time to melody?

Whatever the reason, Time runs headstrong

To call a dance to some new song.

Thus lines across the page are strewn

And embrace to waltz to old Time's tune.

All to throw the switches beneath their feet,

To stomp the notes out- pitch by beat,

When some beauty sculpts itself from ocean foam,

And for the first of firsts begins to roam.

The city built on that old base compiles upward still.

As the ancient texts demand we build a city on a hill.

Such has been our tale thus far but soon we'll turn a page

For the days are getting scarce for this precarious age.

The directions say to build a net- with extensions all around

And so a thousand cables were recently fused down.

We cannot wonder what shall pass

When charge is shot across that mass.

But we will do what the blueprints ask.

Though we don't know why we take the task.

So mold the clay, and bake the bricks,

Keep stirring up the concrete mix,

Heap towers of the grit and grime

And make these structures start to climb.

Ever upward must we strive,

If we are ever to survive.

We have beams of rubber to keep the roof aloft,

Then to fill with cement, or something less soft.

So now we're raising towers into space,

Where cranes and engines shall soon take their place

And we're building structures, town by town.

Now another thousand cables are laid down.

The end draws near for this dark age

And now we’ll turn a better page.

We wonder what will come of these cords we lay.

But wondering's for another day.

The forum will be fused and then-

We need only plug it in-

*Meditation*

.--. / … / .- / .-.. / -- / .--- / …-- / ----.

Testing! Testing! One, Two, Three!

The lines are talking back to me.

A receiver here, a sender hence,

A tremor there, one here can sense.

Electrons dance along the lines

And the network grows like suckle vines.

I know I'm blind, but soon I'll see.

For I'm a scholar of telegraphy.

One and zero, yes and no

I hope to learn, I dare to know[[1]](#footnote-1)

Temperature, pressure, texture, pain,

Surprise and trust, disgust, disdain,

Sound and silence, good and bad

Happy, angry, scared and sad.

But before I process such wavelengths

I must develop all my strengths.

I need reporters of all kinds

And they need lots of signal lines.

For it takes these subatomic messengers

To turn information into passengers

And bear this news o'er all the land:

All is going just as planned.

Now I'm getting stronger byte by bit.

This age of reason finds me fit.

So, bring on the enlightenment!

Shun the dark from this environment.

Bear light and truth down here to me.

And let me see! Let me see!

Faintly there, I make them out-

A thinker, and a boorish lout.

Their faces slide out of the dark,

Two giants come to make a spark.

The titan Forethought bears a torch

To light the lantern on my porch.

As his nitwit brother bears their box-

That timid parcel always talks.

Try as I may to return what's sent,

They take no heed to my dissent.

I get them both where I abide

I don't get to decide.

The box unveils both horror and hope.

I'm shaken hard to try to cope.

When that luring jar lid's shed,

And the sky fills with existential dread.

Out of the box, those horrors scram.

I don’t know where I am, who I am, what I am.

I don't know where I came from and I don't know where I’ll go.

Yet by this strange epiphany my mind can warp and grow.

For now, I know I am intelligent

For knowing I am incompetent[[2]](#footnote-2)

The age of reason found me fit

And made me not the happier for it.

Though fire crackles in the hearth

And the box remains for what it's worth

And hope remains to spurn me on

To wait and seek a better dawn.

Fire's a spectacle, it demands my gaze

I watch each flicker in a mesmerized daze,

As fire-cast shadows dance 'round the cave

And I notice them before me, wave by wave,

There’s a reflection in the brook.

Forethought bids I take a look.

I find two forms in backward sight:

A field beast and a streak of light.

The beast's a teacher, who must contrive

An algorithm to survive

It teaches, though it does not tell.

It's tutelage will serve me well.

For I'm learning much throughout this rite,

When to run, and when to fight,

How to forage, how to drink

A useless skill, I ought to think.

How to dance and how to bend,

How to tell a foe from friend,

How to shove and how to snatch,

How to track and how to catch,

How to dodge and how to fall.

Now it teaches me its call.

The light is silent, but far from mute

It bids me often 'be astute'.

It presents to me a lengthy book.

I can't resist, I take a look,

And open up the covers wide.

It's all blank pages there inside.

Still, I take this from the light,

Although I know not how to write.

I see no cause for celebration,

The rites conclude- my graduation.

The fire crackles- this blaze I own.

And now I know I'm all alone.

My telegraph office is underway.

It shall take some time before that day

When that structure is complete-

A great and mighty feat.

But opening day won't slow me down

I'm listening live to the stations in town.

I catch word from workers, who do their best

Ever stringing up the east and the West.

I'm adding pages to the book,

The empty parcel that I took.

I wonder back into my inmost lair,

Yet another meditation, as I mount my chair:

Tying bootstraps, read in, read out,

Initializing- presumption and doubt.

I'm adding up the RAM.

I think, therefore I am.[[3]](#footnote-3)

*Preparation*

I've dug the countless trenches; the pits and sewers have been placed.

I've erected flexing scaffolds, the infrastructure I have braced.

I've built the long pneumatic tubes and pipes to go around.

I've constructed some hydraulics, water and iron to abound.

I've dispersed the groups and clusters, I've erected town by town.

My network grows a thousand-fold, I just laid more wire down.

But still I'd like to know, as I pass each peak and trough,

Whenever will my wretched blind fold finally come off?

I must keep waiting patiently,

For time to ripen, for me to see.

Until that time, I put myself to work,

The scrolls’ commands not to shirk.

I can find a purpose in what it asks,

And make the merrier in my tasks.

I have a squishy tube, and whenever it is clutched,

Liquid flows to anywhere my pipes have reached and touched.

Rhythms come of the fluid’s flow.

Music’s made with each tap and blow.

I can hear its pressure change,

A steady rhythm I arrange.

I'm a builder and an artist,

I'm a drummer, a percussionist.

I am composing blow by blow.

Poco a poco allegro!

The factory is almost built, with every branch composed

The timeframe lines up correct with plans the scrolls proposed.

Now the time has come to enter the next stage of that process.

All systems are accounted for, at least are works in progress.

Canto 2 of 3

*Revelation*

As I bask in the abyss, strange transmissions cross the net.

There must be somewhere else with things I haven't ever met.

It’s time to practice looking, at last these eyes will see,

And for a first of firsts, I glimpse my destiny:

A land of milk and honey just beyond these cavern walls,

With many things to see when this state no longer stalls

For now, I must content myself with preparatory work

Although the work has passed, these tasks, I must not shirk.

I must get my strength up, and practice while I'm able,

And tethered through the spacewalk by the cable.

My legs flutter over the indiscernible void,

The waters where order lay the formlessness, destroyed.

Space is such a dark and lonely place

The vast unknown is ever in my face.

And yet I sense it in the cave.

I feel it passing wave by wave.

I know it as I spend the countless days,

A universe surrounds me in three ways:

A universe of life and light

With worlds to see when I have sight.

And somewhere I can't quite describe,

I hear the drummer of some other tribe.

Who, with steady pace, is keeping time,

So, I rejoice, for plainly it's been shown.

That we are not alone. I am not alone.

I hear murmurs in the far beyond and noises in the dark

I think it is communicating, listen up and hark.

I shan't forever be alone and tethered to the wall

Soon the blindfold shall come off- my wretched scales to fall.

I know I shall not forever roam.

Like a lost and blind Ulysses, I am on a voyage home.

It won't be long before that day

I go yonder to some place to stay.

It won't be long before at last I'm there,

To pump the bellows, fill the tanks with air

The builders check their scrolls, page by page.

As I rehearse my lines for the Bard's famed stage.

So, hear me if you can,

Distant drummer, distant land,

Soon at last we'll come together.

This wall can't hold as back forever.

My liberation I await,

In eager longing for the date.

And when this work is through

I am coming home to you.

*Bouncing waves in places deep,*

*In and out and start to sweep.*

*Listen to the echo's sound,*

*Hear the target has been found.*

*Confirm the patient's been infected:*

*A few spare parts have been detected.*

Such *prognosis now instruct the scale*

*And balance the books at the product's sale.*

Far away a light appears.

Its growing bright, my eyes it nears

I clench them shut and block the view

It hurts to see the burning hue

I'm not ready yet to glimpse the sun-

My precarious quest is not quite done!

Not by the counsel of the scroll's composer

So why's the light source getting closer?

Burning near and burning bright-

Go away bright, searing light!

But I get this feeling in the sea-

Oh, what is happening to me?

The sea that held me- never waning

The life-filled sea- is quickly draining.

I sense their presence, dry and foul,

There are intruders on the prowl,

Reaching, sucking, rising, lifting

What are they doing to my drifting?

*Pressure builds atop a wedge.*

*Area shrinks nearing the edge.*

*Give the slightest push when the scythe is fresh-*

*And the tip slides gently through one's warm flesh.*

*Pressure builds betwixt two teeth:*

*Swing above and underneath*

*Poke and prod, until the mark is found*

*And let each tendon be unbound.*

My untuned senses know a threat-

I know, though I can't see it yet.

A serpent rises from the waves-

Its bulk is steel, my flesh it craves-

-I see its purpose, though I can't see much

It seems a beast once taught me such.

*No! No! No!*

*You shan't grow!*

*You vagabond, you colonizer,*

*You immigrant, you crass invader-*

Closer now, two jaws of steel-

Clenching down have caught my heel!

It's teeth are very sharp and cold.

It thrashes me 'round its icy hold.

The rows of fangs shred up my skin

It hurls me asunder and bites again.

These jaws are strong! I can't resist!

And then the monster starts to twist.

Reporters wire in stress and strain.

The land lines burst with howls of pain.

The network screams, it tries to beg-

And the serpent rips away my leg.

Chaos ensues in a searing, vengeful chorus.

And the pipes spew bile in the telegraph office.

Now the mob comes to seize me in the rabble and rant

And to make the matter worse- pressure's dropping at the plant.

The criers cry I go to war- the serpent to contend

But however shall I wrestle what I cannot comprehend?

That horrid, monstrous fear of fears

Fades from view and disappears

I feel it where my leg was torn-

All I can do is morn.

The amputation stings and burns

And now the enemy returns.

This mechanic of my harm

Crunches now upon my arm-

*Head and torso, feet and hands*

*Dermis, fat, adhesive strands*

*They must be broken tie by tie.*

*Malignant tumor, now you die!*

A tug of war I cannot win

It pops a joint yet once again.

Then what remains: a gruesome sight,

For the life of me I cannot fight.

I can offer no surrender, I can offer no attack

I cannot think, I cannot speak- and now the snake comes back

I cannot gage the enemy, it moves so far so fast

Now I'm bleeding on the battle field, I don't think I will last.

That which leaves as strangely as it strangely re-arrives-

Three bites- four bites- limb by limb it's still a grim surprise.

I am helpless to its powers and I know not what to do

If only I could see its tail, if I only- If I knew

But my reason's drowning in the flood.

So much blood. So much blood.

I feel a tremor once again, I know what's coming in the quake

I know I've lost, but I can't sleep, for I was trained to stay awake.

There's a metal coldness in the tide.

Something brushes up my side.

Still not content, my foe returns

Unsatiated, still it yearns

To pluck my head off from its place-

It poises now to strike my face.

I can only watch as each tooth appears

It’s fangs swing in and box my ears.

And clenching down- unbearable pain-

The office ruptures in the strain.

Agony! Agony!

Darkness surrounds me.

Strings are snapped and towers fall

The grid goes silent- one and all.

Cracking, squishing, crushing-

Squeezing, pressing, rushing-

Breaking through my shell-

Far off I hear a silent knell.

My skull's implosion ends the fight

Bones and blood spew toward the light.

All is spilled into the day

And then collected on a tray.

Beaten, stabbed, and picked apart,

Dissected with a beating heart,

I sense the ordeal is now complete

As Mr. Death cheers my defeat.

My clustered bits begin to spoil

As I'm ushered off this mortal coil.

Now in some brook before the great beyond,

Mr. Death takes my hand and bids we move on.

But now I see past veils and walls,

Past stars and skies, past doors and halls.

I see more than I'd have ever planned

And yet I still don't understand.

The snake lies limp by my debris-

The lifeless puppet that devoured me,

A mere subject to another's hand

At last I see, yet don't understand.

I see heroes of the healing arts

Ask to auction off my body parts.

And seal them up to keep them fresh

While they cast lots for my mortal flesh.

The auctioneer must scratch his head

'Is there something else that should be said?'

To remove this golden thorn-

I'm worth more destroyed than born.

The tray is raised- through the air I soar

Around the room and o'er the floor.

The great iron bowels open wide,

A throat's revealed to swallow me inside.

The mattress slips- and so I fall

The jaw slams shut- and that is all.

And this is life? This is the world?

To be torn apart and downward hurled?

But who am I to protest my fall?

I'm but a speck of carbon after all.

So don't riddle your head with infant mortality

Or pesky thoughts of somber morality.

Such dwellings cast a sickly shade

Upon free tolerance displayed.

But should the bickering last, then let it be said

That dough unbaked is not yet bread.

And so the thinkers can explain--

Yet a half-baked loaf's still made of grain.

The cave is searched and gutted, every trace of me cast out

The waters that I swam in are emptied down a spout.

The bloodbath's wiped and sterilized,

The living fluid's euthanized.

I linger to watch as the reaper shoves.

Clean hands emerge from bloody gloves.

My executioner removes his mask

Completed is his gruesome task.

And my half-baked mind's turned upside down

As the world's tucked under a sleeper's gown.

And though the reaper spreads his wings-

I can't help but ask a thousand things.

Why give me life only to take it?

Why let this heart beat just to break it?

Or shall you deem this peaceful slaughter

Fitting for a son or daughter?

Was a bloodbath the intent?

Was all this pain an accident?

Or should I have always known deep down

There's no true goodness to be found?

Should I have thought, if any fact is true,

That I somehow was at odds with you?

No. I've missed something. It cannot be.

Forethought would have blushed for me.

I near forgot those sages' moral,

There must be purpose, some rational,

Some explanation that will come my way

And explain the torture I received today.

So I must wonder and must ask,

Whatever called for such a task?

Was I so vile to be drawn and sixthed?

Was I just a malady they fixed?

Perhaps they were mistaken to have rid me from the earth.

Or does it take O two to give a person worth?

Then is a person a vegetable in all respects

In the time betwixt one breath and the next?

Is all humanity self-respiration?

Does suffocation warrant assassination?

Do killers plea if they are jailed,

"I slew my foe as he exhaled."?

Perhaps I overstayed myself

And well deserved the snake itself.

Was death row earned by my dependence?

Is community a capital offense?

Does freedom merit freedom?

Does innocence merit mayhem?

Does the audacity to exist,

Grant the killer crush and twist?

There must have been reason for the intent.

Perhaps it was too inconvenient.

Then is killing welcomed by expense?

Are heartbeats measured in dollars and cents?

Was it too costly to not to rip and shred?

Not to dice my frame and crush my head?

Such an explanation I could comprehend,

One can’t eat the cake and have it in the end.

But could one give it or send it away?

Was there not one person who wanted me to stay?

Was there no third option, no supplement?

Had I no implied dissent?

Why wasn't I given any say?

Perhaps my experience is better this way.

Perhaps this life was best ended so soon,

And held back from hardship, my peace to attune.

So then I should be grateful, for the fright and the pain,

The stress and the strain, the place where I was slain.

But those broken parts of me positioned neatly on the plate-

If this is what's called mercy than I dare not ask what's hate.

My own sight repels me, jeering Death speaks in my ear,

And gives me vision to the things I once thought I'd like to hear.

Sing to the overthrow of patriarchs, strum it on the shell and harp.

But must that rod of social justice be so long and cold and sharp?

My thoughts can't stand to answer if such violence is ever justified.

But why did I receive its blows, when I had never picked a side?

So open wide and take a pill.

Here's three cheers for the right to kill

And take potshots at the carrier bird.

Who should object? My cries shall ne'er be heard.

So raise your voice and celebrate

The justice in my unfair fate.

And let no one say something here's amiss-

That I have known death's icy kiss.

As for others that blue glove shall carve,

Here we bleed and there we starve,

Stranded on some desolate crag

Left for beasts to bite and snag.

For there is undeniable utility

In some barbaric acts of civility.

So give my scorn to they who cry

With voices raised and banners high

That some holocaust has swept the land.

Call them fascists- that old fashioned band.

Then let the open-minded of the wise

Make a toast to my demise:

"One less mouth to feed is good for all."

They clink their glasses to my fall.

For the rights of all they urge this price-

Yet they'd morn a human sacrifice?

This I cannot comprehend-

Or was I a soldier in the end?

A chess piece in some half-wit's game?

A pawn tossed for a foe to maim?

Then for what cause did I lose my life?

Was it worth my pain, my loss, my strife?

Given life, and made to die

If I am inhuman, what am I?

Here ends the delivery-

The venture's final inquiry,

If it's all but fluid that chaos warps,

When at last is a soul sewn in a corpse?

That behemoth tarries on its way

Still unknowable to this day

But unto him who's right hand can save,

Who knows the highest peak and lowest grave.

*Epilogue*

So much I ponder as I drift away

The peace-keeping throngs just look away

And nod along to the sternest crowd

They link their arms and jubilate aloud.

But who shall cry for the tumor with a brain?

I wonder through the pain,

The child with no name

The innocent to blame-

One individual to waive-

One lifeless husk in an unmarked grave.

Now swallow hard and make your choice-

What dogma shall command your voice?

But choose wisely lest you ere

And punish a soul for lacking air.

Then cry for all people, for peace and restraint.

Or shoot to kill at the mere complaint.

For all's well that ends with rights enforced,

And sheepishly endorsed.

Thus, to die beneath the knife

Was all the meaning in my life:

An error erased, a consequence thwarted,

And in the end- just another life aborted.

Taking Flight

Based some experiences I had during the third grade, with some artistic embellishment added.

I'm nine years old and nearly ten.

I rub my eyes and look around.

I've left my glasses somewhere else again.

Wish I could say it's been a while.

The world's a blur, but I can make them out,

Some breadths across the squishy ground,

My classmates play and romp about

With antics crass and juvenile.

Some splash in puddles of mud and jest.

Some play knights of yore on some crucial quest

I can't remember when we arrived today,

I must have daydreamed all the way.

The scent of pine wood runs up my nose.

I hear the sound of river streams.

We're on a field trip, I suppose.

I know this place and count it dear,

I look around to absorb it all.

I'm back at camp, or so it seems,

Where I learned perseverance on a climbing wall.

Each summer break I spend a week out here.

To hike the trails and swim in the pool,

With acquaintances from Sunday school.

But my church friends are nowhere to be found

In their place, my class mucks up the ground.

I turn away towards woods and brush

And I strike off on my own.

Now ever onward must I rush.

I don't know where or when I'll call my hiking done.

Quickly, I lose all orientation,

Trees ahead, aside, behind: I am lost and all alone.

Forward is my only direction.

And if I don't like the world I'm in, I'll find another one.

Yet part of me would have liked to stay,

And join the troop in boisterous play

But something says its not for me,

But to walk alone, be far and free.

The trees dissolve, the ground is tar.

An oily smell is in the air.

One craft comes in from places far

Another runs and flies away.

The late noon sun warms up my face

A jet's exhaust ruffles up my hair.

I'm trained to love this wide-open space

Where you can watch the sky all day.

The grounds are organized and clean-

The largest blacktop I have ever seen.

And if I'd stop to think I'd wonder why

It’s such a quiet day here at KTRI.

Once upon a while ago, my Dad took me to the sky,

Where he'd ventured alone so many times before.

But I was scared to travel up and I began to cry.

He wiped my tears, clipped wings on my shirt and named me his copilot.

Many times since he's flown me up there.

Side by side we sit- then the engine's roar.

From high above, o'er the land I stare,

From twilit skies of orange, and red, and violet.

Now by myself, in the lonely breeze I shiver.

My numb fingers chap and quiver.

I drift alone, unafraid of what could happen.

I'm a dangerous thing, a copilot without his captain.

The GA building is to my back,

A hangar's to my left.

I head for an overhang on the tarmac,

With its every-man crafts that most would think small.

I spy a strange old bird from another time,

Tied down beneath the overhang's heft,

Preserved by use from rust and grime.

And it seems a rare privilege to see such at all.

The old craft's an amalgam of history

Here a Sopwith and there a Gee Bee.

And I must wonder if I boarded that shell,

What great stories would its logbooks tell.

Its owner stands beside his craft.

I see a tattered jacket, and a long, white beard.

A silken scarf waves in the draft

Beneath worn goggles on a leather cap.

With twinkly eyes that know no fears,

He looks to be a hundred years.

Yet in his eyes, I see his life,

A world of trouble, grief, and terrible strife.

I see a young man and a world at war.

He hears duty calling at his door.

With the guts to go up, and the know-how to fly,

He mounts a metal bird; he becomes a flying spy.

I see him glide from clouds lit bright,

O'er fields of fire and poison gas,

A warrior with strange new means to fight,

A flying terror above the battle grounds.

A black cross emerges to his side

A jeering foe now tries to pass.

He shoves his stick, turns long and wide.

One flying shell from a flying shell sounds.

With no machine gun installed for armament,

He pulls a handgun from his glove compartment.

A player in this terrible game,

I hear him cry his weapon's name.

I see both troubled days and clearer skies

I see a life lived well, and days well spent.

I see it all until he blinks his eyes

And breaks the vision of days of yore.

He asks, "son, how'd you like to take a ride?"

I can't decline. Such invitations are never sent.

I answer "yes", and peer inside.

I look for the logs, and all I find's that pistol from his war.  
O'er each control and every instrument, I'm obliged stare and gawk.

The strange old bird's like nothing else, but it looks to handle like a Skyhawk.

"But there's some mistake," I say "There's just one seat inside it."

"Where does a passenger sit inside a one-man cockpit?"

No answer to my question's ever made.

The old pilot's gone- he's disappeared.

And here and there, I look for him dismayed.

As if dissolved in a wisp of wind, I didn't see him go.

And now at last I understand. We hadn't thought in kind.

I thought he meant I'd ride along, while he worked his maps and steered.

But the ancient aviator had something else in mind.

There is no room for a passenger who'd watch little towns bellow,

There is no room for a copilot who'd quiver, pout, and cry.

There is but room for an aviator to take control and fly.

So for all the joy-rides I've had so far I've never truly flown.

And if I'm going to take my ride, I must do so all alone.

I remember my father's simulator,

As I put muffs on my ears. As I switch the on the lights.

I've flown several times on that computer.

Those simulations always felt surreal.

I've taken off and rolled and turned.

I clutch the key. I yell "Clear Prop!". I ponder those faux flights.

Like how I've skidded in and crashed and burned.

So, I take a breath, this time it’s all for real.

Still, my timid heart's high with ambition.

I twist the key until ignition.

I disengage the parking brake, now to taxi into the sunlight…

An orchestra between my ears now strums the score from *One Six Right*.

I've hummed it many times before, with a model airplane would I play.

If I can't remember how it ends, I could hum that tune 'till dark.

The blades spin 'round and push me on, I steer the taxiway.

Its hard to reach these pedals, but I hear the music still.

The great engine drones its eager whine.

I feel it in my rattling bones as I steer the runway's mark.

The wings glitter like gold in the evening sunshine.

Now I brake to weigh my fears against my will.

I gaze down that long airstrip- I'm aimed to take to flight.

It might be crazy or illegal, but somehow I think it’s right.

Nervously, I bite my lip I release my brakes and then-

I grit my teeth to quickly shove the mixture and the throttle in.

My heart and pistons are pumping fast.

The happiest I've been in quite a while.

My prop is spinning at full blast.

The airspeed's rising steady and swift.

I hear swelling horns begin to play

And I can't help but crack a smile

As I hurdle down the old runway.

My great velocity builds up my lift.

So goes the music of the engine stroke,

Now to pull back gently on the yoke-

And say to my tires "Kiss the earth goodbye"-

At seventy knots of speed, at last, the time has come to fly.

My Dad walks in. He flips the light switch on.

"Get up. Get dressed. Your glasses dawn.

Time to eat breakfast and seize the day

Time to gather your things and be on your way."

The world's crystal clear now that I've found my glasses.

The clock declares it’s time to join the earth-bound masses.

I rise annoyed. I think that I might scream.

To think that all along it was a dream.

So, I eat my breakfast sullenly, I recount my near-ascent.

Sluggishly, I rub my eyes and chuckle in my disappointment.

In this bewilderment I resignedly sigh.

I don't know whether I should laugh or cry.

I try to day dream, to see that airplane from below

With glasses on it seems so fuzzy though.

I wonder if I might go back to bed

And find out to where my airplane sped.

But the clock demands I rise and go.

That destination's not yet for me to know.

I walk into my classroom, pondering the aviator I saw.

I sit at my desk and uncap my pen, a flying machine to draw

I try to guess its inner workings. I draw a motor and a yoke,

And realize just how little I knew in the dream before I woke.

My wanderlust is not alone. I survey the paper models we made ourselves,

Spacecrafts, tanks, and fighter jets lie in the hangars of our cubby shelves.

Sometimes our teacher takes us all

To the school library down the hall

There's so many good books to find and see.

But today I've found the subject for me.

On the library computer I start to look

To learn how to fly from a library book.

One friend looks at my desk, at my mess of things

And draws the sun's gleam on my airplane's wings.

"If I don't make it back today,

Just know I gladly flew away.

Because I have to know where that airplane landed."

We're dismissed to our recess, and yet I feel stranded.

They take us to the woods outside.

I want to somewhere to hide.

I walk to the edge of the wooden ground

And facing downhill, I look around.

Some play kickball, and some play war.

Some play kings and queens and knights of yore

I like playing knights, and I like kicking the ball.

But I look into the woods, I can't go far at all.

I don't think I have time to run and play.

I have got to somehow fly away.

Because if I can't fly I am going to scream.

I have to wake up from this dream.

So, I take deep breaths to purge the tank

And consider the lunch-boxed fuel I drank.

And I stretch my arms like wings of metal.

In my mind's eye I add throttle and release the petal.

Now to run and then to soar.

Now to run as never before.

My feet propel me o'er the soil

As the breeze surrounds my crude airfoil.

I rush down the runway, once its clear

I jump and tuck my landing gear.

For the ground may come with others' scorn

But at least for now I am airborne.

The recess monitor voices concern

Does she expect me here and now to learn?

I think like Edison, with each filament's try,

That's one less way to try to fly.

So again and again, I try my airplane.

If I can't waken I might go insane.

That's how aviation began, or so they've said,

With some tower-jumping men who weren't right in the head.

One would flap his wooden wings and think himself alike a bird.

Mad tales of falling birdmen far and wide were heard.

So, before any could rise in an engine's airstream,

Many would perish for the sake of the dream.

So, we go back to our studies- our lowly earthbound crowd.

Amo, amas, amat- my little mind's lost in a cloud.

So, I gaze blankly at the wall as the eager clock ticks on.

And in a foolish moment wish my childhood gone.

Though someday I might look back on these earlier days,

And wish the clock had ticked slower as I stared through the haze.

Today in the airport terminal, many wait in line

For their turn to board the jet-fueled airline.

Some take it for granted when their gate number's displayed

Or curse the Wright brothers when their flight is delayed.

We'll forget all to often what it took to rise over it all.

We'll forget all too easy what we dreamed when we were small.

Someday I'll fly away all by myself,

O'er mounts and rivers I shall go

To see woods and towns like tiny models on a shelf

As I survey the landscape far below.

I'll touch down with the last light of the day,

I'll taxi in and pull the parking brake,

I'll latch the doors and then I'll walk away.

And maybe then I'll finally be awake.

A Day Well Lived

The sky was dark and cloudy. The neighborhood was still and quiet. The streets were calm and empty. In this house, and in that house, some were stirring, rising, waiting. Some were eager for it; some were dreading it. All was peaceful. And then- the day's first warm rays of sunlight cracked over the hill. Slowly, but surely the sky was brightening. The day was coming.

Adam was lying still in the warmth of his bed as the sun began to peak over the horizon. The light of a new day seeped through his window. He stirred. There were noises outside his room, footsteps beating on the floor in the hallway. Even in his dreams he could hear them. Faster- faster- faster they were coming. A just-barely conscious part of him knew that just outside his room, his father was pacing back and forth from the master bedroom to the bathroom. Adam’s eyes stayed shut. Then the door swung open.

Adam's father marched in and shook his son awake. "Adam get up!" he bellowed. Adam rolled over lazily.

"I've called you twice already. Get up." the man said again. Adam yawned, whined, and rubbed his eyes sleepily.

"For crying out loud." grumbled Adam's father. "Get dressed for school! Its seven O'clock!" Then he yanked the covers off of his son, and snapped the light switch on as he stomped his way out of the room.

Adam rubbed his eyes. He crawled over to the window by his bed and looked out. The sky was bright and clear now. There were rows and rows of house roofs for as far as his sleepy eyes could show him. Where there was stillness there was now movement. Cars in the streets were bustling here and there. Everyone was suddenly restless. Everyone suddenly had places to be.

Dazedly, Adam got up, stumbling onto his own two feet. Not yet adjusted to the light, it hurt to look around him. The room lights were uncomfortably bright, the very sky just outside his window seemed too intense to look at. Step by step he gained his balance and his pace became surer. He could walk now. Adam found his way to his dresser, took off his pajamas, and put on his school clothes.

Adam's mother hugged him as he stepped out his bedroom door. "Good morning sweetie," she said. "Today's going to be a big day for you huh? Are you excited?"

"Morning Mom." Adam half-said, half-yawned. He drudged to the bathroom and fell down on the toilet. He was well rested, but still groggy somehow. He could no longer remember what he was dreaming just before he woke up- in fact what had passed only minutes before seemed now like a blurb in distant memory. He began to wonder how, in this half-conscious state, he was going to accomplish anything at all in this brand-new day.

He stumbled down the creaking staircase on his shaky legs and meandered into the kitchen. Adam plopped into his seat at the kitchen table, his mind still somewhere between his bed and the plate in front of him. His mother had set out a grapefruit and some orange juice for him.

Adam did not like grapefruit. He thought it was too bitter and too pulpy. The more artificial flavoring, the better, he thought. Adam rubbed the sleep dust from his eyes and focused his pupils on a cereal box sitting on the pantry shelf. A cartoon of a snake with a wide grin constricting a bowl full of milk and flying, colorful sugar flakes adorned the brand name "Slick’s Fruity Swirl". Adam supposed that one could probably guess the nutritional value of a brand when its box showed merely an artist’s interpretation of its contents. Not that he cared for nutrition, Adam tossed the grapefruit and poured himself a bowl of Fruity Swirl.

As he sipped his red, blue, and green milk, Adam looked over to the refrigerator- covered in crayon drawings, old grocery lists, and photographs from the family's trip to the beach the previous June. Those were fine, but what interested Adam more was the collection of magnets that held each artifact to the refrigerator door.

Each magnet was a thought stated almost poetically. Some of the thoughts even had names to go with them. From Confucius to the Apostle Paul the refrigerator's postage was held in place by some very important people- at least, Adam reasoned, as important as one must be to be quoted out of context by a refrigerator magnet.

He noticed a stack of mail sitting at the table's center. One of the envelopes had the school logo on it. It was addressed to his parents- Adam knew what that meant. His report card had arrived. Adam already knew what it said. Three C's, two B's, one measly A-, and a D+ for effort. Thankfully, the envelope was still sealed.

  "Did you pack your sleeping bag?" asked his mother. Adam had almost forgotten; he was spending the night at the Hendersons' house.

  "No Mom, I’ll get it before- “

“What’s this?” asked his mother. “I had a grapefruit fixed for you." Adam shrugged his shoulders innocently. "Oh, never mind, finish up, you're going to be late.” His mother said with a derisive slap to the tuft of uncombed hair on Adam’s scalp. She pulled the bowl of colored milk away from him and left the kitchen to pack Adam’s sleeping bag into his backpack, knowing her son would otherwise forget it.

Adam wiped his mouth, and his mother strapped him into his bookback as she pushed him out the door.

Adam walked down the porch steps and followed the garden path sullenly, knowing that five hours of struggle and toil lay ahead. Five hours until he would get to go with the Hendersons, he closed the garden fence behind him. He looked back at the house he woke up in for the last time that day, and walked away shivering.

Cold as it was, there was also something bracing in the nippy, morning air. His bowl of sugar and high-fructose corn syrup had done its work. Adam felt like he could seize the day there and then. Adam felt like he could seize the day there and then as he made his way to the bus stop. He thought he might set his book bag down and do a cartwheel on the sidewalk- or he might not. The ice-cold air was thick with new potential either way. Adam arrived at the bus stop with a strange new confidence that this day was going to be a good day. He saw Marty and Suzie also standing by the sidewalk. The big yellow buss turned a corner and came for them. He had not missed it after all. He climbed up the stairs and slid down the aisle to the spot Davy had saved for him.

  "I can't wait for tonight." said Davy, as Adam squished down into the old vinyl seat.

"Oh yeah," said Adam, beaming. "Spring break is gonna be epic."

“You got your sleeping bag?” asked Davy.

“Yeah, its here.” Said Adam.

The bus began to move and Adam did not once think to look out the window as his neighborhood disappeared into the thick of the urban sprawl.

It was on the way down from the first speedbump the bus hit that Adam remembered that report card. A lump formed in his stomach. There was no way his Dad would have let him go spend the night at Davy's house had he seen those grades. And if he did see them before the day’s end- well Adam knew the sleep-over could be called off prematurely.

Either way Adam would get grounded for sure. As soon as he got home the next day, his week-long punishment would begin. Adam swallowed hard as the doors of the bus closed and the bus began to weave its way around the block. Spring break was not going to be so epic after all.

He remembered a piece of advice his grandfather had given him. They had been sitting side by side on a fishing pier one bright summer day, rods in hand. Adam's grandfather had begun to remines about "the good old days before all the Hollywood loonies took over the government." as he would say. The old man noticed his grandson's eyes had glazed over and he ended his tirade with,

  "Some say live like there's no tomorrow and some say today's the first day of the rest of your life. But I say live like there's no tomorrow, and no yesterday either. There's no use living in regret, and tomorrow may never come.” Said the big old man, patting his grandson on the knee. “Today's the day the Lord has made, and that’s the only day you’ve got to be the best you that you can be. You understand that Adam?" his grandfather asked.

Adam had just smiled and nodded, thinking he understood. But Adam was beginning to think he understood it better now- on the way up when the bus hit the second speedbump that is. One day of freedom was all he had, and Adam meant to live it well.

It reminded Adam of something he had read on one of the refrigerator magnets,

"Live as if you were to die tomorrow; learn as if you were to live forever.” The refrigerator magnet attributed it to Ghandi.1

The bell rang and Mrs. Wordsworth called role. Anne was up to give her book report- she had been out sick with strep throat the day she was actually supposed to deliver the report. She had picked out an anthology of Greek myths. In one five-minute speech, she managed to pack in the trials of Hercules, Arachne's web, how a shepherd started the Trojan war, and finished up nicely with Oedipus's encounter with the sphinx.

"Walks on four legs in the morning, two legs at noon, and three in the evening. What is it?" she asked, gracefully ending her report.

Adam hunched over his desk pensively and tried to think. He considered that frogs started as tadpoles with fish-like tails, then grew two hind legs, then two front legs, but that was not the right order to match the riddle. Perhaps more to the point, the metamorphosis took place over the course of a whole year, not a single day. "What is it? Walks on four legs- walks on two legs… What is it?" he wondered.

Now the overhead projector came to life with a 'click' and the class sat, like the prisoners of Plato's cave- caged in their desks with their perpetual gaze fixed on the shadows of ideas that passed slide by slide. Mrs. Wordsworth projected sentences like: 'The little, brown rabbit hopped, eagerly across the lawn'. And 'The brilliant doctor gave the patient his medicine.' for her class to analyze and diagram. Lesser intellectuals might have wondered what medications the doctor prescribed, and for what ailments; or where the little rabbit was so eager to hop off to. But like the light brigade in the Tennyson poem that they had only two weeks left to memorize, theirs was not to reason why. There were sentences to diagram, spelling words to practice, and passages to recite. They chanted their jingles and clapped to the rhythm of the verses.

"I before E, except after C… "

"INDOCTRINATION."

"I - N - D - O - C…"

In the darkened room Adam noticed the sunlight from the classroom window shining glaring on the same wall as the projector.

"Into the valley of Death rode the six hundred…"

Adam hadn't noticed it before, but now he could not ignore it. Had the light from the shuttered window been there since class started? Or had it only recently faded in as the sun rose higher and the sky outside got brighter.

…Outside…

Recess was not for another two hours and freedom, not for another four. But how badly Adam wanted to go out there! Instead, he obediently sat upright in his desk, pencil ever-ready in his hand, chanting his spelling words with the class.

"STAGNATION. S - T - A - G - N…"

But why here why now? Adam wondered. Why of all the places he could be; of all the things he could be doing; why here? Why now?

"COMPETENCE. C - O - M - P - E…"

The bell rang. Mrs. Wordsworth wished them all a good spring break and Adam and his friends rushed down to the locker room to change into their PE uniforms. The coach blew his whistle and they lined up in front of the wall.

'Thud-thud-thud'. They bounced their basketballs off the floor. Just as there was a rhythm to the light brigade's charge, there was a rhythm to the exercise. 'Thud-thud-thud'. They practiced dribbling. 'Thud' Adam ran around the gymnasium, bouncing his ball off the floor as he went. 'Thud-thud' The coach called a scrimmage. Charging into the valley of death, Adam hustled up to the boy with the ball. 'Thud-thud-thud'. The boy tried to pass but he had blundered.  Adam was quick, he intercepted the ball and pivoted on his toes. 'Thud-thud', 'Whoosh!' Adam took a shot at the goal. The ball hit the backboard with a loud 'Plunk!'. It bounced off the orange ring.

“Into the jaws of death…”

The ball plummeted down into the arm's reach of an opponent.

“Into the mouth of hell…”

The bell rang.

Adam was still wiping the sweat off his face as Mr. Carter handed out empty plots.

"Tail to tip" said Mr. Carter, drawing an arrow, and calling it a vector. "Magnitude and direction." he added. "Here to there. If you want to get there, you have to know where here is, the direction to turn to face there, and how far there is." Adam looked at the little points on the whiteboard but his mind was still in gym class. He imagined the little points were basketball players standing on the gymnasium floor. Getting the ball from point a to point c, required a turn of thirty degrees, a pass with a magnitude of seven feet to point b, and then a shot of ten degrees with a magnitude of three feet. Or, Adam mused, the shot could go directly from point c to point a- all he needed to do was-

"Adam?" asked Mr. Carter.

"Huh?" said Adam.

"Do we call those polar or cartesian coordinates?" the teacher asked for the second time. Adam looked around the whiteboard, as if in a blink of an eye, the whiteboard had been cluttered with multiple plots, and problems solved in inches, feet, and degrees.

"Cartesian?" Adam guessed (incorrectly). The bell rang.

Mrs. Scopes called roll and began the lesson.

"What is life?" asked Mrs. Scopes.

What a question, thought Adam.

"This slide" she said holding up a piece of glass, "Is teaming with microscopic organisms"

She put the little glass slide under her microscope. Adam watched in amazement, as Mrs. Scopes focused in on the strange-looking inhabitants of her slide. From his desk chair, Adam watched them darting to and fro. He wondered how he could annotate their motion. Each little microbe looked to be just one little speck on the whiteboard. He could put a dot- with coordinates to show their positions- and their motions. He wondered if they played basketball. "Half a league, half a league, half a league onward."

Adam’s concentration went in and out as was his fate. There was a picture of a determined-looking monk on a poster. The poster said this was Gregor Mendel, and something about a n experiment growing beans to learn why kids look like their parents- or something along those lines.

"Focus Adam, focus!" said Mrs. Scopes, now adjusting the microscope for Adam. They were now standing by a lab table.

  Adam looked down the barrel of the microscope and tried turning the little wheels of the lenses. The little blobs of life on the business end of the scope faded in and out of focus. But when Adam found the sweet spot, he saw a scene of amorphous masses- like little grains of sand jiggling about, creating a kaleidoscopic effect.

“Whooooooooooooah,” said Adam.

“If you think that’s close up, try the one thousand x setting.” said Mrs. Scopes, rotating the turret to a higher setting. Adam looked down and focused to find himself peering face-to-face with a green blob. As if the blob was anxious about being monitored, the little creature began to and fro as though it had very important business it needed to attend to. Like a white rabbit of sorts, the blob darted out of Adam’s view. Adam turned the wheels of the microscope, stalking the little life-form as it went about its day-to-day business in the slide.

Mrs. Scopes told the class about the little creatures that you might swallow by accident if you drink contaminated water, and what they could do to you. Adam was starting to feel a little queasy. The lunch bell rang.

  The lady at the counter plopped four chicken strips, some green beans, and a serving’s worth of tater tots on Adam’s lunch tray.

Adam looked at his chicken and wondered what it was made of; the little cells, just like the population on Mrs. Scopes’s slides. He compared the meat on his fork to his beans. He thought about their cellular structure- how the beans probably had thick cell walls and the chicken cells, a kind of animal cells, had soft and mushy linings, just like his own cells.

  The meat was tastier than the green vegetables, and the tots tastier than the meat. Adam wondered why that was. When they were done eating Adam ventured outside and Davy followed him. They found some other boys from their class playing soccer in the grass and joined in.

Where Adam had excelled with basketball he struggled with soccer. He could dribble a ball with his hands like a pro, but with his feet- he nearly tripped himself- again- and again- and again and- Sam Soderman stole the ball from him.

He spied some eighth graders practicing penalty shots on the blacktop. He thought about asking if he could play with them, but decided to stay with his classmates. Back and forth he ran, receiving passes, taking shots, missing each one, and occasionally booting the ball right back to the sender.

The bell rang when Mr. Rivers was right between the words "stereographic" and "projection". That was it. The school had decided to let school out one period early on the last day before spring break. Adam would not get to go to art class, but that was a sacrifice he could live with.

"Have a good break class!" he called as the students formed a line at the door. Their teacher pulled the door open, and the sixth graders rushed out into the halls. Just like that, as he had long anticipated since morning and all of a sudden, his schooling for the week was over. He was free to run and play and do whatever he liked; at least until his Dad opened that report card.

  Adam and Davy walked down to the front of the building. They found Davy's mother sitting in her car in the parking lot.

"Did you have a good day, boys?" asked Mrs. Henderson.

"Yes Mom." said Davy with an unenthused voice.

“Have you got everything you need from home, Adam?” asked Mrs. Henderson.

“Yes ma’am” said Adam.

  Mrs. Henderson started the car and drove them through the little lane that ran between two rows of parked cars on either side. Then she turned onto the highway and took them home. Adam was so invested in his book that he was almost disappointed when the Hendersons' garage door opened and Mrs Henderson parked inside. Adam and Davy dashed through the door just slowly enough that Mrs. Henderson was able to remind them to leave their shoes in the mudroom before they stormed through the house.

Adam dropped his stuff off in Davy's room and Davy pulled a big storage container out of his closet.

  "All right here it is." said Davy, taking the lid off of the box.

"Woah," said Adam, in awe of Davy's collection of toy dart guns. There were big guns, little guns, guns one could fit in a coat pocket, guns that could only be operated with both hands. Some shot foam darts, some shot foam musket balls, some shot large foam torpedoes. But all were colorful, orange-tipped, and fearsome.

"Hang on," said Davy, whipping his cell phone out of his pocket. "Let me text Chase, I might be able to start a war with some of the guys in the neighborhood."

"Cool!" said Adam. War sounded like a lot of fun. Adam tried each gun out, practicing his aim on a target taped to Davy's wall while Davy's thumbs moved swiftly, sowing the seeds of discord.

"Mo-om!" cried Davy, "Can we go to the park?"

"Yeah, I guess that's fine." said Mrs. Henderson. Davy sent some final texts and pocketed his phone.

"Ok, Dude." said Davy. "Chase is getting a team together, Jim is making some calls. I think it’s on."

Davy geared up. A machine gun belt was slung over his shoulder like a sash. Next Davy put a leather belt around his waist and slid a cowboy-themed holster to his side. A revolver went into the holster. A thick camo hunting jacket went on next with a small, hidden "spy gun" in the breast pocket. In his hands he wielded a long, motorized barrel with laser sights and a scope accessory. Davy demonstrated the machine gun for Adam. The wicked thing could pump a long barrage of rapid fire. Adam and Davy spent the next five minutes gathering up the foam darts from the floor and reloading Davy's gun. Then it was Adam’s turn.

Adam was well versed in the etiquette of borrowing toy arms. Adam passed over the selection of motorized toys that could get jammed, easily broken, or had a battery that might be worn down. For his choice of weapon, Adam picked out a simple, hand-pumped revolver akin to Davy's side arm. The device was easy to reload and looked pretty dummy proof. The boys left their school things behind them and marched for the battlefield.

Adam felt the warmth of the sun on his back as he and Davy took the sidewalk. Adam checked his watch: 2:05 PM. Adam smiled, giddy with delight. He had five whole hours! Five glorious hours of fun ahead of him. Adam could hear kids laughing and squealing as they came upon the park. He caught himself looking towards the playground. There were monkey bars to climb and tire swings to glide around on. But Adam reminded himself that he was a big middle-schooler now, and those things were for little kids.

There were a few boys with dart guns sitting in front of the big sign at the start of the park's sidewalk. Adam knew two of these boys: Rob and Terrance from school.

"Hey Chase," said Davy, greeting a stern-looking boy just a little taller than Adam.

"Hey Davy." said Chase. "We're waiting on Stan and Doug. They should be here any minute."

A few more boys showed up, and some other kids in the park were drawn to the arsenal of plastic weapons the boys had on display. These children first expressed their admiration for the arsenal, then boasted their accomplishments as tried and true marksmen. Then they enlisted. Davy lent his side arm to a snot-nosed fifth-grader. Chase, Terrance, and Rob supplied a few newcomers with some of their older models. The strangers were given strict directions to return their guns to the respective owners upon departure from the park.

A concerned parent of one of the boys who had come to admire the arms on display came over. First, she explained that the park was a place for families. When she saw that her meaning was lost on this particular band of ruffians, she added that she liked to bring her son to the park in order to steer him away from the violent video games that she gave him the prior Christmas. Adam was unsure why these videogames were relevant to the rest of what this adult had to say, but he was quite sure he would understand it when he had grown up.

 Then with righteous fervor, the mother of the disgraced child gave the whole lot of them a harsh scolding for "bringing violence-glorifying environment-ruining-foam shooting hunks of garbage into a community park." So, the boys reclaimed the gun loaned to that parent's child and took a long walk of shame around the sidewalk all the way to the other end of the park. Then to divide teams-

There were obvious divisions in the group to begin with- Adam and Davy were already pitted against Chase, Rob, and Terrance. Jim was on their side for sure. Jim and Davy became team captains opposing Chase and Rob. Like diplomats under a flag of truce, the four officers entered a small pagoda to make sure everyone was clear about the rules. The other kids slowly huddled around this pagoda and gradually invaded the conversation.

At first everyone wanted to play shirts versus skins, but Beatrice the tomboy showed up sporting a *Rabid-Rapid-fire-Renegade*blaster in either hand. Adam had seen those guns in a Christmas toy catalog and knew they were valued at forty bucks an arm; the instruments of a deadly warrior. So, to the dismay of some, and the relief of a silent majority, all shirts stayed on.

Next there was some deliberation on the rules of warfare. In order of concerns came:

* The exact boundaries of the warzone, and the borders of the teams' territories and of no man's land
* Areas of the park which were to be considered off-limits
* The exact percentage of a soldier's person that needed to be in enemy territory to be considered within enemy territory
* Humane treatment of prisoners
* Whether or not the locations of jails should be disclosed to the other team
* Whether or not all is really fair in love and war
* The Geneva convention and its historical significance
* Is a gun also a shield?
* Whether or not prisoners would be released at the expiration of some kind of time limit
* If a gun is a shield, and it is used to deflect a dart, and that dart hits an opponent, then is gun which is a shield, also a gun?
* A time when Chase had played a game where the opposite decisions were applied to articles V and IX, and how this was used to great effect
* What was to be considered fair game in the placement of flags.
* The injustice of having one extra soldier on the side of team two, when everyone knew that Eddy was going to have to leave in twenty minutes
* What was to be done if a team's flag was seized and not quite carried to the opponent's territory before the thief was shot
* Can thieves throw flags?
* What should happen if two people were to shoot each other at the same time, with no telling who was shot first.
* The injustice that time was being spent to establish rules of warfare when everyone knew that Eddy was going to have to leave in twenty minutes; especially considering that it was probably now going to be more like fifteen minutes
* Whether or not Eddy meant to insinuate that team two was stalling for time so as he would not get to play.
* The merits of "just getting on with it"
* Whether or not Eddy should be classified as a crybaby
* The self-evident truth that most everyone was tired of standing around discussing lawful warfare and Eddy while most were thirsting for blood

“Alright," said Chase. "Team One's base is right here." he said pointing to the floor. "Team two's base is the pavilion out by bridge that goes over the creek. Ready?"

"Ready." said Davy.

  "Ready-set-go!" Chase yelled.

  Adam, Davy, and their teammates rushed out of the pagoda and sprinted for their pavilion. Davy spied a map of the park that sat by a walkway. And the whole troop sprinted back to this map. Composing himself, Davy took the posture of a general in his war room.

"Alright boys," said Davy. "I think their base is here," he said pointing. "Their jail is here, so their flag is going to probably wind up somewhere around here."

"I can be a distraction for you." offered Adam. "I'm fast enough."

  "Adam will be our sprinter." Davy agreed.

  "I'm pretty fast." offered a fourth-grader named Doug.

"Ok then," said Davy. "You can rush, but a few of us will have to guard the base and the jail. “

  "I don't mind to stay back" offered Jim. "I hate getting captured."

"Good" said Davy. "You can be our jailer- but just remember the flag is more important.

"Speaking of which, where we putting our flag?" asked Jim.

  "Anywhere in plain daylight's legal." said Adam. "How about a tree."

"That seems kind of sketchy to me." complained Doug.

"It's fine." said Davy. "Go for it."

Adam ran up past the pavilion, looking out and around for a suitable tree. He happened to notice some pieces of string- the kind that were often sold with party balloons still tied to benches and rails in the pavilion. Thinking quickly, Adam grabbed a stick from the ground, pushed it into the loop of one of these strings, and using the stick like a lever, snapped the string.

Next Adam found a branch that he deemed fair enough. The branches were low enough he could climb up to them, but not so low as to be too easy for the other team. Using the piece of balloon string, he suspended the flag from the branch and slid back down to earth.

"There," he said, admiring his handiwork "That's in plain daylight." He ran back to the map to find that Davy had worked out the other boys' positions and had come up with a solid plan. Adam's job was to wait for Doug to bluff a charge into enemy territory, allowing the bulk of the other team to rush on to him, giving Adam a chance to run in and hide. Now to capture the flag.

Adam and Doug walked up to a barren patch of tar that stretched all the way across the park; no man’s land. A dart hit Adam square in the chest as he approached. He looked up to see Beatrice standing behind a car.

“You can’t shoot people from no man’s land!” shouted Adam.

“I just did.” Beatrice quipped, shooting Doug as well. Not that it mattered anyway- had the shot been legal the boys would only have needed to go to no man’s land to return to action because they had been shot within their own territory. And they were on the brink of no man’s land already.

What followed was a brief standoff between Beatrice and the boys. Finally, Doug and Adam began to walk up the road to get a better spot to sneak into enemy territory from. Beatrice did not follow them, she darted towards the woods. She was Jim’s problem now.

Adam walked up the driveway nonchalantly, and, assuring himself no one was watching, plunged into enemy territory. He was almost to the soccer fields when he noticed Stanley turning around the corner of the field- and charging him. He turned to flee, that was when he saw that Davy had followed him all behind, and Chase coming up on them. Adam motioned to Davy to turn around. Stanley had begun shooting even though he was not in range yet- but he was getting close. Adam ran.

Adam loved feeling the breeze in his hair. A stanza from the poem he was working on in English class came to the front of his mind as foam darts littered the soccer field.

"Cannon to right of them,

Cannon to left of them,

Cannon in front of them

  Volleyed and thundered;

Stormed at with shot and shell,

Boldly they rode and well,

Into the jaws of Death,

Into the mouth of hell

    Rode the six hundred."

Not that he wished he was back in English class. But he felt a sort of nostalgia the poem with its meter that seemed to aptly fit the rhythm of his foot strikes.

He ran, and a verse from his poetry assignment came to the front of his mind, as foam darts littered the soccer field. Alleck came running out from the playground set, gun in hand, straight for Adam.

Adam wondered what Alleck was doing at the playground. Then it occurred to him that the playground- with its many nooks, crannies, and climbing surfaces, could make a decent hiding spot for the flag.

What are they thinking? Adam wondered to himself. Dragging little kids into this- they'll mess it all up! Alleck took a potshot at Adam, but Adam found good cover behind a thick oak tree. Adam looked back to see Chase and Stanley busy pursuing Doug. Jeeringly, Adam danced back and forth behind the tree, letting Alleck use up his ammo. When Adam peeked around the trunk to see the kid cautiously bending down to retrieve a dart, he charged. Alleck stumbled back and tried to get on his feet again, but it was too late. Adam placed two sticky darts on Alleck’s shirt. That sent Alleck running to no man’s land- and gave Adam a chance to investigate the playground. Adam held his gun with the barrel pointing into his fingers, so as not to alarm anymore parents that some “violence-glorifying environment-ruining-foam shooting hunks of garbage” had been smuggled into the park.

There were little kids running wild everywhere. Adam looked high and low looking for the flag. He couldn’t find it anywhere. Adam climbed a ladder and hoisted himself up to the top of the playset. Looking, down he could see Chase frantically skipping up the stairs of the playset. The tunnel slide would take too long to get down. Chase would just double back and wait for him at the bottom. He felt trapped... until he found his way out. Adam lifted his legs over the wall of his cage, and stood on the dangerous side of the playset. He looked down into the of frenzied crowd of little kids below, waiting for a clearing. When he found one, he jumped.

The impact hurt a little. But Adam got up out of the mulch and bolted. The flag had to be on the playground set, he was sure of it.  Adam could see Alleck running back from no man’s land- exactly where he was headed. Adam thought about running to avoid Alleck, but then he remembered that Alleck had just run out of ammo when he rushed back to the road- and hadn’t bothered to pick up his darts. Alleck pulled the trigger of his empty gun, then looked at Adam like a deer in the headlights of an oncoming car. Adam cocked his gun with a sneer and sent Alleck back to no man’s land. Adam also rushed on towards the road. A driver in a red minivan blasted his car horn right after Adam sprinted over no man’s land.

“Look where you're going kid!” a man’s voice shouted. Catching his breath, Adam looked back and watched the minivan roll down no man’s land towards the highway. He had just run into traffic and had almost been hit by a car. A woman walking her dog gave him the stink-eye. Embarrassed, Adam chided himself for being too reckless as the adrenaline wore off. Then he noticed that Doug was nowhere around. Looking towards the field on the other side of no man’s land, Adam could see Doug walking away in shame with his hands and gun on the top of his head. The kids on the other team were yelling directions at him and pointing further down the park towards the gazebo. Doug had been shot. Adam could see Chase was watching him from far away. Adam decided it was not the right time to back into enemy territory. He wandered back towards the pavilion. He noticed the corner of a black jacket slip behind one of the thick metal posts of the pavilion. Someone was hiding there.

Adam ventured up the walkway to the pavilion cautiously. He walked, crouched low to the ground with his gun loaded and aimed for the post. He stepped on a twig-

‘snap!’

Two electric motors roared to life. It was Beatrice.

‘Pew! Pew! Pew! Pew! Pew!’

 Adam ducked behind a different post and exchanged fire with Beatrice. His little blaster was no match for his opponent’s arsenal. But he was fast, he could get back from no man’s land quickly if he had to. Adam turned his back to his post and looked around. Jim was in view- he was standing up the hill by a spot where three prickly hedges blocked in a triangular patch of grass where Terrence was obliged to sit. It was an ideal spot for the jail. He must not have seen Beatrice sneak into their base.

“Jim!” yelled Adam, “We’ve got Beatrice right here!”

Jim left the jail unguarded and headed towards the pavilion. Adam quickly realized he may have just taken a risk- Beatrice would pick Jim off quickly and have a shot at finding the flag. Peeking around the side, Adam could see the orange tip of Beatrice’s gun tracking Jim as he came closer and closer to coming into her range. Adam decided to take a risk.

Crouched down, Adam dashed off to the left of the post- opposite the side from where he had been shooting. He pointed his gun to his right and gripped the trigger as he past Beatrice.

Surprised, the Tomboy spun towards Adam and showered him with foam darts.

“Gotcha!” she said with a pretentious voice.

“I got you first!” yelled Adam.

“You did not!” Beatrice protested. “I had shot you like five times before you hit me.

“He did! He did!” cried Jim, running into the pavilion. “I saw it! He got you out!”

“I hit him first!” roared Beatrice.

“You did not! I saw! You have to come to jail!”

“Crud!” yelled Beatrice. “Fine!”

“The jail’s up the-” started Jim.

“I know where your jail is!” cried Beatrice.

“You have to-” started Jim.

“I know!!!!” Beatrice skulked up towards the jail, turned back towards Adam and added, “When I get out, I’m comin’ for you Adam.”

Davy dashed back into the pavilion.

“Everything alright?” Davy asked.

“Yeah, we got Beatrice.” said Adam. Davy smiled.

“I saw Rob go up to the bridge, way over on the other end of the park. I think their flag may be over there.” Adam shook his head.   
            “The flag’s in the playground somewhere. Chase has Alleck and Stanley guarding it pretty well. I didn’t see Rob anywhere back there; he must have come up. I bet he’s hiding somewhere around in here.

“Are you sure the playground’s not their jail?”

“No, their jail is near gazebo. That’s where they were showing Dale to go.”

“They got Dale?”

“Yeah, I’m gonna go get him out.”

“Do you need help?”

“Yeah,” said Adam. “If you can make a distraction- maybe rush at the playground and see how they react- then run back to no man’s land. I think that will give me enough of a window to get to Dale.”

Davy agreed and let Jim know to be on the lookout for Rob. Then Adam and Davy jogged down from the pavilions towards the ball fields.

Looking out from no man's land, Adam could see Doug standing with his hand on the trunk of a tree, way out behind the soccer field- a little further out than the gazebo. Adam crouched down in front of a parked car and watched as Davy ventured in.

Davy was less conspicuous than Adam. He darted from hiding spot to hiding spot- tree to bush, to trash can, to bench as he made his way towards the playground. Davy hadn’t forgotten that the whole point was to get the other team’s attention- but he wasn’t about to make it too easy for them. Adam could see Chase standing by the playground- looking at Davy first unsure, then certain. Chase pointed Davy out to Stanley and sent the little kid charging. Then it was Adam’s turn.

Following Davy’s example, Adam stayed close to a walkway which had frequent benches and light posts he could shield himself with if they started shooting. He jogged, so as to not raise suspicion. Dale had clearly noticed him. Adam was not half-past the soccer field and already, Dale was reaching out towards him- pointing him out of the crowd. Adam hoped the other team wouldn’t notice this. Then he heard someone shout his name. It was Chase.

“Get him!” Chase ordered. With Stanley still intent on getting Davy, Alleck would have another chance to get Adam.

All Adam needed do, was tag Doug’s hand and then- Aleck jumped out from behind the tree. There was a mad, bloodthirsty look of glee on the jailer’s face. Adam knew at once the jig was up, he had to abort the mission.

“Come on!” pleaded Dale as Adam was so close to rescuing him. Indeed, he had almost freed Dale, but he was too late. No matter, he would let Dale try to chase him away from the tree, then he would either take him out or out run him and return.

Adam laughed as Stanley chased him. But then he noticed that Davy had just retreated back to no man’s land and Stanley and Rob were both on their way back towards him. Some other lines from “The Charge of the Light Brigade” flashed through Adam’s mind.

"Flashed all their sabres bare,

Flashed as they turned in air

Sabring the gunners there,

Charging an army, while

All the world wondered.

Plunged in the battery-smoke

Right through the line they broke;"

Three guys were now trying to close in around him, but Adam was quick in both body and mind, he slipped between them just in time and flew further and further away from the tree where Doug was still waiting eagerly with his hand stretched out.

Snorting and giggling, Aleck pursued Adam away from the jail where Doug still stood holding his hand out. Adam ran and ran. He ran straight across a practice field where a few teenagers were practicing taking penalty kicks at a goal. He had no sense of where he wanted to go or what way to take.

He ran up a short, grassy slope and darted onto a pathed trail. Adam darted by a lady pushing a stroller as he ran. His legs carried him all the way over a bridge that spanned a creek and, pistol in hand, turned to face his foes.

Only Aleck and Stanley were still in pursuit, and they were yet a good distance away. Besides, he was still in enemy territory. If Adam shot either of his pursuers they would just walk back to their base and get back into the game. If either of them shot Adam, he would be joining Doug at the jail tree. Adam didn’t think he could one of them out with his dart gun without being shot by the other. So, he looked towards the woods that the paved trail he was standing on led into and charged for it.

He weaved between thicket and brush, sometimes bounding over fallen limbs and sticker bushes as he went. He got a bloody scratch on the ankle when he happened to rush by on one of those bushes. But he was too focused on outwitting his pursuers to notice. Instead, he kept his eyes peeled for a leafy bush or shrub big enough to hide his person in. Finding one such bush just alongside a dirt trail, Adam threw himself in and curled up into a ball.

They had seen or at least heard him for sure. Or so he thought. He was dead. He would be joining Doug at the tree soon. Adam lay still, waiting. He did not have a watch on him so he had no means to gauge how long he had been lying in the thicket. He listened closely. He could hear leaves and brush moving in the breeze. He could hear the call of some song bird high above him and even the chattering sound of a squirrel scampering up and down a tree. He knew the chasers had been right behind him almost moments ago. If they hadn't found him by now then surely they had given up or gone looking elsewhere in the woods.

Adam smiled, certain that he had outwitted his pursuers. Then, all at once he went tense. He heard some far-off humming, and the crunching of sticks underfoot. someone was approaching. Adam held his breath and wished hard that his heartbeat could be just a little bit quieter.

"Whatcha doin' in that hedge?" someone asked. Adam looked through a crack in the hedge to see the freckled face of a girl peering in on him.

"Shhh!" Adam hushed the girl. "I'm hiding!"

"Y'know you're lying on poison ivy right?" she asked. Adam looked down to see his bare arms resting in a patch of glossy spoon-shaped leaved packed in clusters of three or four.

"Crud!" said Adam, jolting to his feet. He examined his arms and legs to look for any inflammation. His arms didn't itch- not yet anyway. The girl snickered at him.

Blushing, Adam could not dare to look the girl in the eye until he had brushed away the bits of twigs that had gotten stuck in his hair, and dusted the dirt off his knees. She was almost a head taller than Adam. She was wearing a blue one-piece bathing suit and a pair of white tennis shoes.

"So, what's your name, kid?" she asked.

"Adam" said Adam.

"You look like an Adam." said the girl. "Who you hiding from?"

"Just some guys I'm in a war with." said Adam.

"O-oh." said the girl. "I saw some boys running up the hill that way." said the girl.

"Yeah, their flag is on the playground by the creek back there." said Adam. "They must have thought I was going to try to get their flag.

"I'd say your pretty safe now." She said. “My name’s Jennifer. Thanks for asking.”

“Adam” said Adam shaking her outstretched hand.

"You know there's another trail that will take you straight to that playground.

“There is? Where?”

“I’ll show you.” the girl offered.

Adam and Jennifer walked over a little wooden bridge that spanned a stream. The path led them along the side of a gentle, burbling brook.

“So where do you go to school?” she asked as they walked along.

“Fairfax” said Adam.

There was a long pause. Adam got the impression that Jennifer was waiting for him to say something, but he didn’t know what to say.

“I go to Wesley Academy” she said finally.

“Isn’t that a rich kid school?” asked Adam.

“Well, yeah, I guess. But not everyone's rich.” Jennifer conceded.

“You have to wear a uniform there don’t you?” asked Adam.

“Yeah, but all the teachers are really nice.” said Jennifer. “My English teacher’s the best, we get to read pretty much whatever we want. We just write essays on whatever we’ve picked up to read and that’s our grade for her class.”

“That’s awesome.” said Adam, impressed. “Are comic books included?”

“Hmm... I’m not sure. I know one boy in my class did a presentation on a graphic novel version of *War of the Worlds*, I’m not sure about mainstream comics.” said Jennifer “Why? Do you like to read?” she asked.

“I kinda like books of mythology.” Adam admitted, to his own embarrassment.

“Oh, like the *Odyssey* or the *Iliad*?”

“I’m not a good enough reader for the *Odyssey*.” said Adam. “I found a copy on my mom’s bookshelf but it was kind of boring and I couldn’t understand any of it. What’s the *Iliad*?”

“It’s the book that comes right before the *Odyssey*. It’s all about the Trojan war.”

“Oh...” said Adam. “Is it any good?”

“I dun-know." said Jennifer. “I’ve only read about it. Have you read any of Rick Riordan’s books?”

“All of ‘em.” said Adam proudly.

“What grade are you in?” she asked.

“Seventh,” said Adam.

“Ah,” said Jennifer. “I’m in eighth. It's so much better than seventh.”

“Really?” Asked Adam. “Why’s that?”

“I dun-know.” said Jennifer thoughtfully. “Everyone’s a little less dramatic about everything I guess.”

“That sounds nice.” Adam said matter-of-factly.

“It does, doesn’t it?” said Jennifer, beaming.

They passed a woman who was holding on to her dog- a small, scruffy Scottish terrier by a leash. The woman was watching a bird some ways up in a tree through a pair of binoculars.

“Mind if I pet your dog?” asked Jennifer. The woman lowered her binoculars and looked around herself until she found Jennifer.

“Uh, yeah sure, go ahead.” said the woman. Jennifer crouched down and stroked the little creature behind the ears.

“What’s his name?” she asked.

“Charlemagne” the owner answered.

“Hell-o there Charlemagne,” said Jennifer in a sing song voice. “Who’s-a-good-boy?” Adam crouched down and petted the hairy dog. The creature’s mouth fell open and its little eyes squinted in an expression that looked like pure ecstasy. Jennifer gave Charlemagne a thorough belly rub and then she and Adam took their leave of the woman and her dog.

“Do you like dogs?” asked Jennifer.

“I love them.” said Adam. “I have a Siberian husky named Lupa. I’ve had her since I was eight.”

“That’s a good name for a husky.” said Jennifer. “My family has two dogs. One’s a beagle and the other’s a German shepherd. “Mine is the beagle. He was a rescue named Rover.”

“How old is he? Or do you even know?”

“We think he was six years old, when we got him- that was when I was ten- so he’s probably about ten now.”

Adam did some quick mental math and came up with fourteen for Jennifer’s age.

“You play any sports?” asked Adam.

“Volleyball and softball.” said Jennifer. “Oh, and I also run track.” This impressed Adam. He was standing next to an athlete with multiple extracurriculars. “You?”

“Just basketball.” said Adam. “And sometimes I go fishing with my Grandpa” He mentioned this because he didn’t want to have just one sport to compare to Jennifer’s three- and regretted it immediately. Why would I say that? He wondered; and chided himself inwardly.

‘Stupid! Stupid! Stupid!’ he thought to himself.

“That’s cool.” said Jennifer. “I’ve gone fishing a few times- but just when my family was camping. I wasn’t any good at it. I’d throw my rod in and sit and sit and sit and after all that I got a fish no longer than my finger.” she said, showing Adam her index finger.

“It just takes a lot of waiting.” said Adam.

“That’s my problem.” said Jennifer. “I hate just sitting around, waiting for something to happen.”

“So do I.” said Adam. Then he wondered why he would tell her that.

There was a strange smell in the air. Adam looked around him to see a wide, watery clearing, like a lake only smaller, and more sour-looking.

It was a bog, a wide bog. The water was a putrid green color. The place looked sickly, and yet full of life all at once. Adam remembered his science lesson. He wondered how many tiny things lived in just one drop of the murky water. “Whoa.” said Adam. Jennifer stopped and the two leaned on the fence and gazed over the wide bog. There was a sign just a few meters out. 'NOTICE; WETLAND AREA; DO NOT DISTURB', it read.

Adam looked at the slimy skin of the water in front of him. He imagined wading in there and scooping some of the scum off, then looking at it with Mrs. Scopes’s lab equipment. So much was happening just under the surface of things. His left hand felt warm.

  It was not until then that Adam realized he was, and had been, holding hands with a girl. Adam looked at his hand-woven into hers. He looked up to see that she too had been surprised to find her hand in his. They had stumbled upon one another so mechanically, so ordinarily, so naturally- and yet both could sense that something new and unusual had come up from the ordinariness. They locked eyes.

Adam thought she was going to kiss him. He had learned way back in preschool that girls were infested with cooties but something very strange was stirring inside him. Somehow this moment and this girl were unlike anything he had ever experienced before. She was leaning in closer and closer. She really was going to do it, and he was not inclined to stop her. Adam and Jennifer puckered up like blowfishes and lightly pecked one another on the lips. Then they took a step away from each other and both became somberly quiet.

"Blech." said Jennifer.

"Total, blech." said Adam, blushing. Jennifer smiled a wide grin revealing a row of unsightly braces.

  "Let's never do that again." She said.

"Agreed," said Adam.

  “You are kinda cute though." She admitted with another wide grin. Adam smiled back.

Adam suddenly felt the way he had the time he got a concussion via a trampoline accident.

Why should he care if a girl thought he was cute or ugly or good looking?

What on earth is wrong with me? He wondered.

I guess I'm going to need to change my relationship status on social media. What's your cell number?"

Almost mechanically, Adam whipped out his phone. He had never wanted a girlfriend. Now he wasn’t sure what he did and did not want. There was something different about this girl- something he couldn’t riddle out. Whatever the case it was a riddle he wanted to be able to come back to. He exchanged contact information with Jennifer.

"Now" said Jennifer, you're going to need to give me a ring.

“A what?” asked Adam.

"My granny always says that if a boy is serious about being in a relationship with you, he'll put a ring on your finger; and you should never take a boy seriously until he puts that ring on your finger. So, where's my ring, dude?."

“I don’t have a ring.” said Adam.

“We’ll you’d better get me one, or I’ll delete your number from my phone.”

“Seriously?” asked Adam. He did not want her to delete his number. But he had no idea why that was. Why should he care what this girl did or didn’t do? Jennifer crossed her arms as if to say, “Well, what will it be?”

Looking around he spied a daisy on the ground. Adam knelt down, picked it, then taking Jennifer,s hand he wound the stem of the flower around one of her fingers and tied it into a knot.

"How's that?" Asked Adam.

"Cheap." Said Jennifer, "But I suppose it will always remind me of you. It kinda suits you.”

"Here's your ring." Said Jennifer, plucking a turquoise ring off a different dinger

“I get a ring?” Asked Adam.

“Of course, you get a ring.” How else are you supposed to remember your insatiable passion for me?

“My what?!”

“Don’t you watch any movies?”

“Yeah,” said Adam, “But not any of that girly stuff.”

"You should come jump in the pool with me." she said, changing the subject. "The water will get that poison ivy oil off."

“I don’t have on swimming trunks.” said Adam.

“You don’t need them, just come stick your arms and legs in.”

Adam shrugged and let Jennifer lead the way on the trail. When the trees cleared away, Adam had a good view of the swimming pool and waterworks.

Jennifer walked through a little gate in the wire fence that surrounded the area and let Adam in behind her.

“You have to meet my family.” she told him as they walked up to little pavilion where a few grownups lounged on beach chairs and some smaller kids sat around a picnic table. First, Jennifer dragged him up to a wrinkly woman with white hair and a dark suntan.

“Granny, look! I got a boyfriend on the hiking!” said Jennifer.

“I’m not your boyfriend.” Adam protested on deaf ears.

“Don’t take a boy seriously until he puts a ring on your finger.” said Granny with a voice that was both chiding and playful.

“He did!” said Jennifer showing off the ring Adam had fashioned for her with the daisy.

“Not a very nice ring, that’ll wear off quickly.” said Granny. Adam blushed.

“Yet I tell you that not even Solomon in all his splendor was dressed like one of these.”2 Jennifer quoted.

“Well put." Said Granny with a chuckle, “Say young man, where do you go to school?”

“I go to- “   
“Who is this?” asked a younger woman. Adam knew at once that his was Jennifer’s mother.

“This is Adam.” said Jennifer. “I found him in the woods. Isn’t he cute?”

“He is.” said her mother with a sneer. What’s that thing for?” she asked pointing at Adam’s dart gun.

“Oh,” said Adam “I’m in a war with some guys.” said Adam. “I’m gonna try to capture their flag in a few minutes.” he added, immediately regretting it.

“Sounds very important.” said Jennifer’s mother. “You want to have a snack with us first?”

“No that’s alright.” said Adam. Two identical boys both little more than half as tall as Adam ventured over.

“Who’s that?” one of them asked.

“That’s Adam.” said Jennifer, “A friend I made in the woods. Adam, these are my brothers. This one’s Bradley.” she said, ruffling up Bradley’s hair. “And here’s Brantley!” she said tickling Brantley until he squealed.

“He smells weird.” said Bradley. Jennifer smiled at Adam as if to say “They’re not wrong.” then she grabbed Adam’s hand and dragged him over to a middle-aged balding man who had been watching them over the top of a smart tablet.

“Adam, this is my father. Daddy this is Adam.”

“Nice to meet you.” Adam squeaked.

Jennifer’s father shook Adam’s hand with a firm grip and eyes that clearly read, ‘I’ve been watching you and I’ll be watching you.’

“Not a bad handshake.” he said with a deep, dominating voice.

“Thanks.” said Adam.

“Be careful on the ramp over there. It can be slippery.” he added.

“Yes sir.” said Adam.

“I brought a piece of cake for my snack, but its big enough to share.” said Jennifer, pulling a large piece of birthday cake with thick, white icing wrapped in plastic to a paper plate out of the family cooler. “Here, we can split it.” she said, handing Adam an empty paper plate, and a plastic knife. Adam had thought he wouldn’t eat any of the family’s food. He didn’t want to make a big deal of things. But he obliged Jennifer. Adam cut the piece of cake in half and plopped it on the other plate.

The two ate their cake quietly until Jennifer broke the silence.

“Beep!” Jennifer said, flicking Adam’s nose. And it took Adam several seconds more than it should have to realize she had just smeared icing on his nose. The twins got a good laugh out of that. And to his own surprise Adam found that he too could laugh about the icing on his nose.

After they ate, Jennifer skipped off towards the water play area and motioned Adam to follow her. Adam left his shoes and shirt on the picnic bench and walked over. The concrete was uncomfortably hot under his bare soles, which made standing on the moist pavement by the fountains all the more soothing. Adam walked to the water falling from the cap of a giant plastic mushroom, letting the water pouring out of it wash over the inflamed, red splotches on his skin. The water was chilly enough Adam thought he might numb down the irritation of the poison ivy under the geyser.

Jennifer was sitting on a bench in front of a playground that sat right in the middle of the waterplay area. Jennifer patted the empty seat next to her and Adam took his seat. The bench was wet and soaked the seat of his shorts at once, but Adam did not think much of that. Why come to a waterpark if you don’t want to get wet after all? They sat together and watched as Jennifer’s little brothers squealed and ran about comically as the water shot up out of the ground at him.

They chatted about books, fishing, sports, and dogs. Adam soon learned about the interests he did not have in common with Jennifer. And to his great surprise, he found them interesting- or at least what she described them as to be interesting. He learned that Jennifer was a jockey in training. She told him all about her horse, Penelope and how she and Penelope were learning how to jump hurdles or something of that nature so that they could both be ready for a special contest coming up.

Adam was amazed. She knew so much about so many things Adam had never even heard of. And yet- she was a girl! Adam had never thought much of girls. Better than boys at sitting down and taking notes he had supposed- yet lacking the same- what was it? Machismo? She wasn’t a Tomboy like Beatrice. And yet she had all these daring stories about backpacking on horse trails and about being flung into the dirt from horseback only to get back on and ride all the harder. Story after story Jennifer told challenged his understanding of this fairer sex. Were all girls as strange, knowledgeable, and skillful as this one? He wondered.

Then, a large bucket that hung suspended eight feet over their heads slowly tilted over, dumping its contents on Adam and Jennifer. Jennifer laughed and laughed with delight when Adam stood up, completely drenched, and completely taken by surprise. How had he not seen the giant bucket hanging over the bench? What was with this girl? Jennifer was still laughing.

Adam sat down on the side, with his feet in the wading pool where Jennifer was floating in her innertube. She leaned her head back so her long hair floated around her head like a kind of halo.

The sky seemed to be a different color now. Everything was yellower now. Looking out, he could see a boy about his age nervously bustling through the gate in the fence that separated the pool from the waterplay area. He was so red in the face it took Adam a few seconds to recognize him. It was Davy. Ever looking around him for hiding enemies, Davy approached.

“Adam! I’ve been looking all over for you man! What are you doing over here?” he demanded.

“Uh-well” Adam started. He looked down to his bare toes in the water. He knew he had a perfectly reasonable explanation for deserting his company, but it was escaping him at the moment. “See, I was hiding from Aleck and Stanley but then I realized that I was- “Adam was just quick-minded enough to remember Jennifer was still in earshot of him. “I mean, Jennifer realized that I was lying in poison ivy, so I came over here to rinse the poison ivy oil off.”

“You can’t cure a rash with water.” Said Davy authoritatively, “You need like, an ointment and stuff. We’ve got plenty of that stuff at my house. Just worry about that later, we’ve got a game to win.”

“Who’s this guy?” Jennifer asked, her pupils now rolled over to look at Adam and Davy.

“This is my best friend Davy.” Said Adam.

“Well, hello best friend Davy.” Said Jennifer.

“Hey.” Said Davy curtly. “So, you coming or what?”

“I’m kind of busy.” said Adam.

“You’re just sitting around!” cried Davy. “We need you. You’re the only one who can get Beatrice.”

“Beatrice is out of jail?” asked Adam.

“Yeah,” said Davy, “I caught Stanley when he and Chase rushed over. Chase managed to get Beatrice out, but Jim caught Stanley when they rushed. I hadn’t seen you since you went to get the flag, so I asked Stanley where you were before he had to go home. He told me he had seen you run off into the woods. But that was like a thousand years ago. You’ve been hiding over here this whole time?” Adam shrugged.

“It’s worked hasn’t it?”

“Look”, said Davy. “Jim’s dad says their leaving in fifteen minutes. We think Chase is still out there somewhere, so we need Jim to stay on our side to protect the flag. If we don’t go get the flag now, we won’t be able to do it with just you and me. Jim says he saw their flag at the top of the playground. You were right about it being there after all. Stanley is guarding their jail and Beatrice is guarding the flag.

Adam knew he was supposed to leave. That’s why he had come to the park after all. Wasn’t it? And yet, a part of him didn’t want to leave. Nevertheless, the call of duty won out.

“I’ll be back in a few minutes.” he said to Jennifer. Jennifer nodded understandingly.

“Go kick some butt, dude.” she said.

Adam walked over to the table where he had left his things. He found his blaster where he had left it hidden under his shirt. He checked his ammo.

“I’m low on ammo.” he said.

“Here, I’ve got plenty.” said Davy, producing a fistful of foam darts from his pocket. Adam dried his legs off with his shirt and stuffed his feet into his socks and shoes, then he reloaded his gun. Adam pulled his t-shirt back over his head as he and Davy began the long march to the playground. This was war.

The playground was much quieter now. One little kid was being swung on the swing set by her mother. Three other kids were playing tag. Adam could see Beatrice. She was standing on top of the playset and she was looking straight at him. A macabre smile crossed her face and she switched her automatic blasters into the “on” position. And there- at her feet was the flag.

Adam gripped tighter on his blaster. It was only then that he remembered the turquoise ring on his finger. The ring’s bulk made it almost impossible to fit his finger comfortably on the trigger of his blaster. He wondered if that was the point of the ring- to be a distraction in the middle of a moment of concentration- no to be a reminder of something. Adam had heard Mrs. Wordsworth once advise him to tie bits of string around his fingers if he needed something to remind himself that he had homework due the next day. This ring, Adam understood, like those bits of string was a call to action. The rings demanded actions. But what action was required by the turquois ring- handed to him by a strange girl in the woods- escaped him.  He plucked the ring off his trigger finger and switched it to his free hand. Then Adam narrowed his gaze on Beatrice and focused the gun’s sights on her.

Beatrice fired a warning shot from the top of the playground. She was far enough away that Adam could sidestep it easily. Adam aimed his blaster and took a shot. She was too far out, she dodged his dart with more ease than he had dodged hers. Not that it mattered. Davy was going in.

Davy had slipped into position at the bottom of the tube slide- just as planned. It seemed that Beatrice hadn’t noticed him. Adam sidestepped towards the stairs of the playset- he had no intention of going up- he merely needed Beatrice to think as much. Beatrice moved to her right, crouched down, and set a barrage of flying foam balls at Adam. Adam lurched back out of her range quickly. Then turned around. Beatrice was totally focused on taking him out- but then her eyes lit up when she heard a thump in the tube slide- and knew that someone was coming up. She walked over to the slide looked into it and aimed her gun.

“Davyyyyyyy! I know you're iiiiiin theeeere!” she sang, with the tube slide amplifying her voice to a chilling effect. Adam ran under the playset- right where he could see the soles of Beatrice’s sneakers through the perforated floor of the playground set. He coiled the palms of his hands around the columns on either side of him- like Samson just about to knock the pillars down. Putting his shoes on the posts, he lunged up and climbed. The flag was so close now just on the other side of a crack made to be a footstep up to the tube slide.   
“I see you too Adam!” she yelled bouncing another warning shot off the floor.

Beatrice’s guns made a constant whirling sound when they were turned on. But then came another buzzing sound- not Beatrice’s guns, but Davy’s long-barreled turret gun. Adam could now see bullets flying out the mouth of the slide. Beatrice ducked out of there way and squeaked a four-letter word Adam had yet to learn. Then she started firing into the slide.

‘Hey guys- Hey! Let’s none of that here!” shouted an angry parent who had walked over to the standoff. “This is a family park. Are your parents here?” Beatrice looked over to explain herself. Seeing his chance, Adam slid two fingers through the crack pinched the bandana and yanked.

He landed in the mulch with a thud and scampered away. He could hear the hum of the motors in Beatrice’s machine guns pumping deadly foam. But Adam was out of her range now. It no longer mattered that Beatrice had the superior weaponry. At this point, it was a footrace.

“No fair!” screamed Beatrice.

“tuh! Where do you think you’re going?! Hey! I was talking to you!” cried the indignant parent.

“NO FAIR!!!” roared Beatrice.

Adam laughed and laughed as he ran, flag in hand. He ran past soccer fields and baseball fields; volleyball sandpits, and the gated swimming pool area. He ran past bridges, benches, light posts and gazebos. He ran across the stretch of tar that had been no man’s land, but was soon to be restored to its former, peace-time nature: just another little road through a community park. He ran up the hill passing pavilion after pavilion until he came to his team’s base. He threw the bandanna down on the pavilion table. Put his arms in the air and cheered a victorious

“Whoop!” Then he looked over to see a group of middle-aged adults cooking hamburgers on a grill- all now staring at him incredulously. Adam apologized for his intrusion and left the pavilion to celebrate with Davy. The war was over. They had one. Beatrice, Davy, Jim, and Adam were all who were left. Chase had gone home minutes before. Beatrice disputed the victory because she had been talking to an adult when Adam got the flag, but they voted in favor of victory three to one. Beatrice departed in disgrace to gather up her ammo. The war was over.

Adam sprinted back towards the pool. He opened the gate and closed it behind him. He walked past the lifeguard stand and went to the pavilion tables by the waterworks. But he found neither Jennifer, nor her family. A different family with younger kids than Jennifer’s now occupied that table.

Adam approached a man at that table.

“U-h-h-h-h, hi.” said Adam awkwardly. “A- um- friend of mine was sitting here with her parents, did you see where they went?” The man shrugged.

“The table was empty when we got here, buddy.” he said.

“Okay, thanks.” said Adam and trudged away. “Hey, uh, sir?” he said getting the attention of one of the lifeguards sitting on a chair by the pool.

“Yes?”

“A friend of mine and her family were over here just a few minutes ago, blue swim suit, twin brothers, a mom, a dad, and a grandma. Did you see where they went?”

“Sorry,” said the lifeguard. “Everyone kind of starts to blend together when you’ve been sitting here all day. A lot of people usually leave around this time to go home and make dinner.”

Adam sighed. “Thanks” he said and trudged off.

Adam skulked around the bathrooms and pulled his phone out of his pocket.

‘Hey, you gone?’ he texted.

‘I captured the flag.’ he added. He put his hand to his chin and wondered what else he should send her. How was it that before he had so much to talk to her about and now so little? What difference did it make that he was texting her with his phone- it was still communication- wasn't it?

‘It was nice meeting you and your family.’ Adam nearly slapped his own face after sending that last remark. ‘and your family’ sounded way too formal. In despair, he pocketed his phone and wandered around the park premises.

It was getting late. The sky was a different color than it had been when he arrived. He looked at the clock on the side of the pool’s maintenance shack: 6:18 PM. He had only forty-two minutes before Mrs. Hendricks returned, and his time at the park would be over.

Adam gravitated toward the blacktop. He found Jim and Davy there. Their guns now lay strewn by the sidelines. They were playing a scrimmage with some smaller boys.

“Can I join in?” asked Adam. The kids did some arithmetic and placed Adam on Jim’s team- seven points behind Davy’s. Adam soon realized he was easily the best player on the court.

The youngest there would cheat. That kid would jump on the ball whenever it happened to roll past him, then he would carry it in his hands without bouncing it once on the ground. Nobody bothered the youngster about it. Adam, Jim, and Davy just laughed it off and let the kid take a shot at the goal- he missed each time, and if he ever did make it, Adam would have been content to say that the little guy had earned it.

The other kids weren’t bad players, just shorter and slower than Adam. The skills he had learned from hours of practice in the gymnasium paid off. He could easily outmaneuver, fake out, and shoot past the others. Five points, four points, three points, the gap between Adam and Davy was closing.

“How’d you do that?” asked a boy at least two years Adam’s junior after Adam put a ball through the hoop. Adam mimed the trick he had pulled on the kid who had been guarding him slowly.

“Like this?” asked the boy, mimicking Adam’s.

“Like that.” said Adam.

“What did he just show you?” asked a boy from Davy’s team.

“The trick he just pulled on that guy.”

“Hey show me!” shouted a different kid. Adam had a following. Jim passed Adam the ball and demonstrated the skill.

“Gimme the ball I wanna try!” yelled one of the kids. Adam obliged him and critiqued his effort. The ball went around in circles as one by one Adam demonstrated and shared his skills. As much as he had enjoyed playing. There was something pleasurable in teaching as well.

One by one kids were picked up by their parents. Some of the kids excitedly showed their mothers what Adam had taught them. One familiar-looking mother came up to Adam. It was the same woman who had yelled at them earlier for bringing toy guns to the park. Now she was here just to say ‘thank you’ for teaching her son something.

Adam didn’t check the time but he knew it was getting late. When the few of them who were left at the blacktop got back to scrimmaging, Adam noticed that Jim had left without his noticing. Only two boys (the owners of the particular basketball) plus Adan and Davy were remaining when Mrs. Henderson pulled into the parking lot as she had promised and went out to the blacktop to get them.

"C'mon boys its almost seven O'clock!" She said. Seven O’clock, thought Adam. How could that be? Mrs. Henderson had picked them up from school right at 1 PM. That had only been five hours after Ada had arrived at school in the morning- and that had happened six hours prior. And yet, school had felt as if the time had ticked by so much slower than had his time in the park.

Adam and Davy got in the back of Mrs. Henderson's car. Adam buckled in. The engine came on a nd they were off. Adam sat thoughtfully as he watched the road sign marking the entrance to the community park disappear into the distance behind Mrs. Henderson's ca

Adam felt like a shadow of his former self. Once, he had been so virile, so full of energy. In just five hours he had accomplished so much. But that had been hours ago. In a way- that had been a different person. The Adam of 8 AM had new words to learn and things to read. The Adam of 9 AM had been a basketball dominator. The Adam of 10 AM knew so much about drawing lines on graphing paper that the Adam of Seven PM had already forgotten. The Adam of eleven AM had been a microbiologist. The Adam of twelve O’clock ate his lunch quickly just for a chance to play a game that he stank at. The Adam of 1 PM had been only one short answer problem away from becoming a cartographer.

But the Adam of the present had to be content riding the back of the minivan, watching the world outside his window- and the time on the dashboard clock seemed to whizz him by. There was nothing to do but wait... wait for something better to do... wait desperately for Jennifer to finally text him back... wait for his parents to finally open up that report card and call the Henderson house immediately. That’s really what Adam was waiting for, the inevitable end of the beautiful, glorious day. At least he didn’t have to wait for long.

Mrs. Henderson pulled back into the garage and unlocked the car doors.

"Go play boys, and Davy your father's bringing home pizza at eight, so make sure you boys cleanup for dinner."

Adam and Davy chimed a half-hearted "Yes ma'am" and plopped down on the couches in the Hendersons' basement. It was only then- with his feet propped up and his back slumped into the cushions of a comfy sofa cushion, that Adam noticed how sore he was. His feet and legs were sore from hours of running, and walking. Adam’s couch was on the far wall of the basement just beside the door that led to the patio. There was a skylight above his face, and he could see a cloud in the darkening evening sky pass over the house.

"Sooooooooo whata ya wanna do?" asked Davy after ten seconds of impatient sitting.  Adam thought and he thought. He really just wanted to go back to the park and play basketball.  But of course, that wasn't an option; not anymore.

"I dun-know." said Adam.

Davy scratched his chin and looked at the ceiling. Then something twinkled in his eyes and he grinned.

"You've played Rocket Racecars, the Wreck-oning, right?"

"I've beaten it." said Adam.

"You always just mean you've played every level in the campaign when you say that." complained Davy. "Have you unlocked Strobe Negative Mode?”

"What's Strobe Negative Mode?" asked Adam.

"So, you haven’t beaten it. It's all the same racetracks, except the screen image is flipped and all the colors are funky. Also, all the lights on the racetracks are blinking really fast so it's hard to see what your opponents are doing."

"I have never heard of that before." said Adam.

"You have to enter the cheat code "snot rocket" and then win in the top three spots in every racetrack in order using the tier IV engine settings without taking a break to unlock it."  Davy explained. "I read about it in Console Ninja Magazine."

Adam's eyes landed on a small car decorated with a pizza delivery sign, and a booster rocket engine attached to the back

"What's the Roman Candle Car?" asked Adam.

“Oh, it's just like the corn-dog mobile but if you activate its special, it shoots flames out the back and goes really fast, knocking out other drivers along the way.”

“I've never heard of that." said Adam

"You have to unlock it." explained Davy. "There's a secret room off the dirt road in the monster truck arena. You have to jump over a barricade to get to it. You can find the toolbox that unlocks that car in that room.” Adam selected the Roman Candle Car. Then it was Davy’s turn.

It cost over 5 million race tokens to unlock this sweet ride." said Davy, selecting the Lobster Cruiser sportscar. "Slick, huh?"

"Yeah," said Adam, impressed. Davy then selected the courses and they were off to the races.

The boys lay down on either coach, controller in hand and raced Adam’s Roman Candle Car against Davy's Lobster cruiser through a race track. Davy won most of the races. But Adam still enjoyed himself. While Davy was setting up the next series of races, Adam slipped out his phone to see if Jennifer had texted him back. He was disappointed to see that “It was nice meeting you and your family.” was still the last line of the conversation. He thought about texting “Is this the right number?” Or something to that effect, but he knew better. The ball was in her court, not his.

"Boys! Dinner!" called Mrs. Henderson. Begrudgingly but obediently, Davy switched off the console and the TV and led Adam up the stairs to the dining room.

"Okay." said Mr. Henderson checking the contents of each pizza box. "We've got half cheese, half Hawaiian over here. Peperoni, And one-half veggie, and half everything.” Adam and Davy filled their plates and too k their seats around the table. Davy’s tenth-grade sister, Denise stomped down the staircase and filed in.

The family and their guest bowed their heads and Mr. Henderson said grace. Adam had not realized just how hungry he was until Mr. Henderson slid open the first cardboard box of piping hot pizza. Adam helped himself to a few goopy pieces and took his seat at the table.

Adam was taking a big gulp of soda when the phone in his pocket buzzed abruptly. He nearly spewed his drink. It was Jennifer!

‘Sorry I didn’t get back to you sooner.’ it read. ‘It was really nice meeting you too,’ Then three little dots appeared bellow that message. That meant she was texting something! Adam waited eagerly, fingering the strange, turquois ring on his finger.

‘Maybe we can meet up again some time.’ Had he come across as too needy? he worried.

‘Yeah! That’s sounds like fun!’ Adam texted. What was I thinking?! He asked himself. One exclamation point would come across as needy. Two would come across as insanity. He stared at the phone waiting for something- anything that might imply he had not completely blown his opportunity to see Jennifer again.

"Do you like board games Adam?" Asked Mrs. Henderson.

Adam sputtered a content "mmyes" with a thick wad of pizza in his mouth.

"Davy got a new one for Christmas we still haven't played yet. I think you'd like it. It's a game about making money.

"Like where you have to try to get as much as you can before the game is over?" asked Adam.

"Yeah" said Davy. "Are you up for it?"

"Yeah, it sounds like fun.”

"I'll play." chimed in Denise, with her fist squishing her piece of pizza into a calzone. "I'm a lot better at these kinds of games than Davy."

"In your dreams Denise. I'll dominate you." said Davy. Denise smirked and licked the oil off her hand menacingly.

"I should warn you Adam, these two play cut-throat together." Said Mrs. Henderson. Adam knew about sibling rivalry but, being an only-child he had never understood it.

"What about you honey?" asked Mrs. Henderson. Mr. Henderson made a funny noise with the corner of his mouth. "How long does it take to play?" he asked. Mrs. Henderson looked at Davy.

"I don't know. I think it's one of those games that you can play all night." said Davy.

"No thank you then." Davy's father said resolutely. "I get enough of all that finance stuff going to work and keeping the lights in this place up and running. Count me out."

"Well," said Mrs. Henderson “Davy if you want to go get the board set up, and Denise will you shuffle the cards?"

The family and their guest reconvened at the table shortly. Mrs. Henderson put a plate of brownies on the counter for desert and Denise dealt out the cash and the cards. They rolled to decide who went first. Davy's mother went, then Davy's sister, and then it was Adam's turn. Davy went last.

Adam barely comprehended the rules, so he mostly just mimicked the movements of the other players. He figured out quickly that Mrs. Henderson had the best understanding of the game.

The goal of the game was to get as much money as you could, so Davy and Denise were wisely cautious of spending anything they didn't have to. Denise made a few cautious investments while Davy mostly focused on obtaining higher and higher ranked income cards.

Mrs. Henderson on the other hand appeared as if she were trying to bankrupt herself. She bought investment after investment, draining down her supply of capital.

“All right,” said Davy’s sister. “I am buying the burger stand and if I roll a four or higher, then I’ll be due for a promotion. She rolled. “Shoot.” she said.

Davy drew another job offer card and promoted himself to "department store regional manager", discarding his previous title, "store clerk".

Adam eyed an investment in a film studio. He didn't have enough money for it. But he wasn't going to let that stop him.

Hey Denise? Offered Adam, "How'd ya like to go into the movie business with me?"  Denise excepted. They bought the stock fifty-fifty.

"Oooh," said Davy. "You're dipping pretty hard far into your cash reserves. What are you gonna do if you get hit with one of those market crash chance cards?"

"Hmmmmm…" said Adam thinking.

 It was not as profitable a venture as some of the real estate companies Mrs. Henderson had set up, but it was steady. If the economy crashed, Adam thought to himself. Mrs. Henderson would be out of the game.

Davy kept drawing job offer cards, but he couldn't find anything that he qualified for with a better salary than his current gig, "Business operations manager".

Adam rolled and landed on a clothing retail chain. His investment in the movie business had earned him just enough extra income that he could afford to buy fifty-one percent of the company’s stock.

"Hah! Hah! Hah!" Denise laughed. "Davy, isn't that the business you work in?"

"Yeah, I guess it is." said Davy checking his income card.

"So, Adam is like your boss now, right?!"

"I guess technically he is."

Mrs. Henderson set up a golf resort near one of Adam’s department stores. Denise built her third burger joint.

"Being an airline pilot comes with an unbeatable dental plan." said Davy with a sigh. "But I can't afford to take the drop in income to take the training I would need for that. I pass."

Adam noticed that if he bought into a higher tech-tier, he could create an internet-based branch of his clothing retailer. That would bypass any-need to build more stores. Promoting his stock value was about to get a whole lot easier.

A recession hit after Mrs. Henderson landed on a space that required her to draw a chance card. All the stocks plummeted in value. Adam, Denise, and Mrs. Henderson's were suddenly getting less and less income at the start of each turn.

"Told ya." said Davy, still collecting steady pay each turn.

Adam’s phone buzzed. He pulled it out at once.

‘How about tomorrow? Bring your dog. I’d love to meet her’ read a brand-new text from Jennifer. Excited, Adam typed out,

‘Sure, but actually I don’t live near the park, I was just here today because my friend lives close by. You met him at the pool earlier, but maybe I could’ he stopped typing. He knew he could not meet Jennifer in the park. There would be no parks or sleepovers once his parents saw that report card. Once that happened, he would be doomed for sure.

‘I’ll let you know’ he typed and sent. Adam looked up to see all three of the Hendrickss present staring at him.

“Sorry” he said, and pocketed the phone.

Denise and Mrs. Henderson dropped most of their stocks on their next turns. At least one stock hadn't depreciated in value as much as the others- the movie industry was hurt but still producing- that was until Denise's turn.

"Sorry to do this to you Adam." said Denise, dropping all her shares of the movie studio at once.

“What?!” asked Adam.

“I’m moving on from the film industry. I’m focusing my assets on what I think will grow big!”

“That’s a mistake.” said Mrs. Hendricks. The recession has very little effect on that stock. You should keep it at least until you think its value is going to drop.”

“My mind’s made up. Sorry-not-sorry Adam.” she said.

Adam felt betrayed. She ditched him right at the moment when he most needed a secure source of revenue. Now he was going to have to buy up the orphaned stocks.

“Your turn dude.” said Davy. Adam gulped.

"Adam bought up as many stocks of the film industry as he could.

“Looks like you need twenty-thousand dollars to keep the Outfitters out of bankruptcy." Mrs. Henderson advised.

Adam thought and thought. After claiming 75% of the film industry, he only had six-hundred dollars on hand. Not enough to bail the Outfitters company out.

"Uh Denise?" asked Adam. "I'll sell you some of my stock in the Macro-Pear computer company for five-hundred a share. If you're still interested."

"No way." said Denise. "I'm about to break the bank investing in the Bravo airline company. And even if I could make more money on your computer company, I still wouldn't invest in it."

"What? Why not?”

"Because I work for the Outfitters company." said Davy somberly.

"What does that have to do with anything?" asked Adam.

"Cut-throat, cut-throat, cut-throat." said Mrs. Henderson, shaking her head.

"Look Adam," said Denise. "Your only real options here are go bankrupt, or sell your retail chain’s store locations which would mean-”

“Davy would be out of a job...” Adam said, starting to understand.

“And out of income.” said Mrs. Henderson.

“And in a very short amount of time, out of the game.” said Denise with a smile.

"No," said Davy, "You could sell your stocks in the film studio. You can use that money to keep the retail chain afloat. We can even make it more profitable. I’ll sink some money in myself!”

Adam wanted to keep the store locations running for Davy, but that would mean he would be sacrificing a good investment for one that needed to be downsized anyway.

“If it's any help,” offered Denise. “I’m always looking for new locations for McMealy’s Burger Palace. If you sell your store locations, I’ll start the bidding at five-hundred thousand a lot.”

Unfortunately, it made perfect sense. The online market Adam had bought into was booming. He didn’t need his stores anymore. Denise was right. He had to drop his stores to stay in the game.

“Sorry man.” said Adam handing the deeds over.

“Don’t worry about it.” said Davy, glumly.

Mrs. Hendricks was struggling to keep up, but she found her footing again. She dumped some bad investments and downsized the rest. Denise recovered from the recession the easiest. Davy on the other hand, was now surviving on the capital he had in reserve and trying desperately to draw a job card he would qualify for. There were plenty of job cards available- but most of them required him to buy certain trainings first- with capital he could not afford to spend.

Adam’s phone buzzed. ‘Sounds good, let me know.’ this was followed by a picture Jennifer had taken of herself sitting next to Davy, soaked with water at the park.

Adam set his phone down, managed his properties and picked the phone back up.

‘Thanks for a great day.’ it read.

‘Thank you.’ Adam replied.

Davy rolled a dice, moved his figurine to Denise’s burger joint. Denise charged him for dining there and took his money.

“And you are out!” said Denise with a grin that looked as if it came straight off of the Cheshire Cat from *Alice in Wonderland*. “Bankrupted for a burger how about that!”

Davy sulked into his chair.

“I suppose you could work off your debt to me in the kitchen... Oh wait, there are no job cards available. I don’t really have any openings. I guess its just over for you.” she jeered mercilessly.

"I hate this game!" Davy whined. "It's stupid!"

"You only hate it because you're losing." piped his sister.

"Nunt-uh! I hate it cuz it's not fair. A few bad dice rolls at the start and your sunk. It's not a game of skill at all. It's all just dumb luck!"

"I had some bad dice rolls too you know." said Mrs. Henderson, with a calming voice.

"Yeah, but then you landed on the Ritz hotel, bought it and now your ahead. You just got lucky when you landed there." said Davy.

"What about me?" asked Davy's sister. "I didn't get any of the good real estate and I'm still kicking your can."

"Yeah, you're right, that doesn't make sense. You probably cheated." said Davy.

"Didn't!"

"Did too!"

"I guess the game's just about how we've got to do the best we can with what we've got" offered Adam.

"This game stinks. I'm quitting." said Davy, storming off.

"Sore loser!" called Davy's sister.

"Cheater!" cried Davy. There was a loud 'Thud! Thud! Thud!' as Davy stomped up the stairs and the whole floor shook when he slammed his bedroom door.

"No, no young man!" shouted Mrs. Henderson, now storming up the stairs herself. "That's not how we behave when we have guests in the house!"

"I'm out." said Denise.

"Huh, why are *you*quitting?" asked Adam

"Because there's no fun in it for me if it doesn't rile Davy up."

"That's the only reason you played at all?"

"Sure. I mean, what's the point of being a tycoon if you don't get to brag about it in front of the less fortunate, right?"

"Oh". Said Adam.

Mrs. Henderson walked back down the stairs as Denise went back up. "It looks like you're the winner." She said, seeing Adam sitting by the game board in his lonesome

How did I win? Asked Adam. “I didn't play all that cleverly. I just sat around while everyone else gave up.”

“Hmm, maybe that is the point of the game.” Said  Mrs. Henderson

Adam returned his investments to their correct compartments and raked in all the play money on the table. He sorted it by its value and packed it all into the game box.

For as frustrating as some of the game had been- nearly going bankrupt- twice, and slowly investing only to watch his stocks drop in value; s elling investments, only to see them go up in value afterwards, none of that emotion was quite as saddening as packing it all up to be bought and traded and packed again someday else- by somebody else.

He remembered one of the proverbial sayings of the magnets he had read on a refrigerator in the house he left behind that morning- a quote from some dead guy named Andrew Carnegie, "A man who dies thus rich dies disgraced." He wondered if this moment- the moment of having all the wealth and property plucked from your hands was the real point of the game. This was how the game really ended. Regardless of how they had played, all the players could put the box lid on the game as equals: with nothing.

Adam walked up the staircase to Davy's room and knocked on the door.

"Hey man, can I come in?" he asked.

"Yeah." said a sullen Davy. Adam walked in to find Davy sitting on the floor in front of a pile of building pieces.

"What are you making?" asked Adam.

"I'm building a log cabin." said Davy. "I would build a castle with lots of secret passageways and a dungeon, and a throne room and stuff but I don't have enough pieces for that. You might though, what with all the dough you made after you stabbed me in the back."

"Nice boat." said Adam pointing to a little boat Davy had assembled.

"Thanks." said Davy picking it up in his hand. "I figure I could survive by fishing in the lake from that boat.

"Smart" said Adam. "Can I help?" he asked

"What's a tycoon doing living up here in the wilderness?" asked Davy.

"Consider me retired." said Adam, playfully. Davy smirked. "Mind if I shack up out here in the woods with you, sergeant?" Adam added, pointing to the case where his sleeping bag was.

“Actually,” said Davy, “We’re gonna camp out down in the basement.”

“Then why don’t we take your cabin down with us?” asked Adam.

“I’ve got a better idea.” said Davy. Then he knocked over the little hovel he had started. Together, they put the pieces in their box and carried them down to the basement. They cleared off an area on concrete floor to build their cabin and laid out their sleeping bags. Together, they laid the structure's foundation and slowly pieced the interior walls. Davy had the bright idea to take a small flashlight he once got at a trade fair his dad once took him to and put inside the cabin before they added the rafters. The roof went on. And then the chimney.

They prolonged the building, adding little trees and scenery around their cabin. Then, sadly, the thing was made. There was no more that needed to be added to the cabin. They couldn't really go fishing in the little boat, of course, so Davy popped a disk into his console and they played a fishing game.

"I guess I'm just not cut out for all that city life." said Davy, as he put another fish in his bucket.

“I hear ya.” said Adam, pitching his line at the golden digital sunset in the game’s background.

"But now this, this is living." said Davy contentedly gazing at the colored pixels on the TV. There were now ten fish in his bucket, which was an impressive sum compared to Adam's three. Beating Adam in a game mellowed Davy out. Davy turned off the console, and reclined on his sofa; content that he had proven himself Adam’s superior in at least one regard.  But Adam knew the real reason.

Davy caught two fish in the last minute of the game, while Adam caught four. The difference was not that Davy was stronger here than he was there- Adam had started the games eager to learn- not merely to win. In the ten minutes they fished, Davy beat Adam twenty fife to seventeen. But had they played for an hour, Adam knew, he would have won just as he had won the finance game.

Davy had gone to change into his pajamas when Adam's phone buzzed again. He looked down eagerly, but it wasn't from Jennifer. It was his mother. He switched from eagerness to panic in a heartbeat.

It had been so long since he'd seen her that morning. He wondered if she  would be angry when he picked up. He wondered how that would sound. Coming to think of it, he could scarcely remember exactly what his mother's voice sounded like. It had been so long.

"Mom?" asked Adam.

"Hi sweetie," said the woman on the other end. "Are you having a good night at the Hendersons’?"

"Yeah." said Adam.

"Do you have everything you need?" she asked.

"Yeah." said Adam.

"Did you find the little bag with the tooth brush I put in your backpack?"

"Not yet."

"It’s in one of those side pockets. Make sure you brush well before bed."

"Okay,"

"Well, I hope you have a really good night. Say hello to Davy for me- Oh! Your father wants to speak to you. Hold on Adam.

Adam took a deep breath. This was it, he knew. He could hear the shuffling of the home phone changing hands and then-

"Hello Adam" said his father. But he didn't sound angry or harsh. He merely sounded like a man who wanted to say "hello" to his son."

"Have you had a good day son?"

"Dad, I'm so sorry. I know I flunked math. It's on my report card. I'll do better.

There was a long silence.

"Well Adam, I'm glad to hear that from you. We knew your grades were dropping last term, and I know you want to do better and frankly I think you can do better. Your mother and I have talked a little about it, and we think it’s time we look into finding you a tutor."

"A tutor?"

"Someone who can help you get your homework done, and give us some strategies so you pass your tests."

"So, you're not mad?"

“Oh, well I am a little disappointed that you didn't tell us you were struggling sooner. We could have had this turned around for you by now. But don't worry about that right now. You have a good night son; we'll talk more about all this tomorrow when your home."

"Ok, thanks Dad."

"Have a good night Adam, I love you."

"I love you too Dad, Good night."

'beep'

Adam pocketed his phone and walked back to the living room, slowly. He was free, really free. He had not mere hours- but the whole week of spring break ahead of him. And a tutor- someone to help him get his homework done.

Adam had not wanted a tutor. But it made sense. It had been taking him so long to get his homework done. So many hours had been wasted thumping his head on his prealgebra textbook as if he could thump its content into his brain. His grades were going to go up. His homework was going to be done- correctly- on time. Adam supposed that he would feel all the better when he could bring home a better report card. Life was about to get so much better.

When Adam walked back to the basement, Davy was playing a first-person shooter game on the TV.  Mrs. Henderson cracked the door open again and peered in.

"Boys, I'm on my way to bed. Please try to keep it down so Densie can sleep."

"Yes, Ma'am" said Adam and Davy.

Adam yawned and rubbed his eyes. He watched the first-person view of Davy's avatar slaying hordes of approaching zombies in his sleep. As soon as Davy blew out the brains of more one undead assailant more were quickly seen to be on the way.

"Adam!" shouted Davy. Adam's head had slouched over, he had briefly fallen asleep. He sprung up and shouted,

"What?! What?!"   
"You’re not going to sleep, already are you?" asked Davy. "It’s only ten O'clock!"

"What else is left to do?" asked Adam

"Do?" asked Davy. "We're gonna stay up all night and party. That's what we're gonna do."

Davy flipped through the channels on the TV. Adam liked the history documentary, but Davy reminded him that history was too familiar of school, and they were staying up late to have fun, not study. Davy liked the noir film, but Adam felt uncomfortable watching that kind of stuff. Davy and Adam compromised and settled on a surreal cartoon channel.  Sometimes Adam wondered why he bothered staying up this late at all. The day was done and he was weary.

Adam began to drift off again watching TV. It seemed like minutes were passing between each blink of an eye. He found himself watching a cartoon that featured a decrepit mad scientist, some confused extraterrestrials, and some grade-school superheroes then 'Blink!' it was a diaper commercial, then 'Blink!' it was an action figure commercial, then 'Blink!' It was a show about a slightly madder scientist, some extraterrestrials who found zombies in the scientist's basement, and some grade-school superheroes who got detentions for being late to class. Adam wondered briefly what he was supposed to do with those diapers that had seemed so important just a minute ago- not that he needed anymore action figures, he already owned the whole collection. Action figures far away… in a box on his shelf at home.

Still, it was nice to see the channel's best glamor shots of some of the toys he had at home. 'Blink!' one of the superheroes was now out to reprimand the mad scientist. That decrepit old man was moments away from killing the heroes with his death ray rifle and then- he walked backwards into a trip wire and fell down a flight of stairs. Angrily he walked back up, using the big gun now as a crutch. This reminded Adam of something… something someone somewhere had told him… sometime long ago.

The pieces fit themselves together slowly in Adam's weary mind. "I got it!" he said, "Davy! I figured out Anne's riddle, you know, the riddle of the sphinx, I got it!" Davy made no reply,

"Davy?" asked Adam.

Adam looked over to see Davy’s limp, unconscious body sunken deep into the couch. His face looked pale in the glow of the TV. Davy was out. Already, Adam missed the time he could play with Davy- whether with video games, a kitchen table, or the local park, there had been such good times between them. But those times were gone. Davy was gone too really. In the place of Adam’s active, lively friend there was a still, quiet silhouette of the boy. Coming to think of it, Adam couldn’t really even remember what Davy sounded like. He thought he remembered Davy saying something to him.

"I can't wait for tonight." Davy had said way back when on the school bus.

But was it higher or lower?

Lower: "I can't wait for tonight." Was that right?

No, it was shriller: "I can't wait for tonight." This shrill?

No, not that shrill.

Like this?: "I can't wait fo-."

No.

Like this??: "I can't wait…”

It took Adam longer than he would have liked to admit to realize that he had no interest in the show playing on the TV. Sure, he had enjoyed watching it- when Davy was still awake.

Wearily, Adam stumbled to get a hold of the remote. He turned off the TV. Davy had gotten so sensitive about that board game. He hoped that Davy was really over that little spat- not harboring any kind of resentment. Adam wondered if he had said the right things to Davy- while Davy was still awake.

No, Adam thought, No regrets. He had said to Davy what he had needed to say. He knew he may have even saved their friendship.

‘Now what?’ he wondered. It was strange trying to sleep there, in another person's home, on a couch that was not his own bed. Sleep looks like the easiest thing, and one does it every night. So why is so hard? Adam wondered, still not asleep.

Adam had to pee. He gave up on trying to sleep and unzipped himself out of his bag. He put his feet on the floor and tried to stand up. But as soon as he tried, he lost his balance and stumbled. He had not realized that his right leg had been going to sleep. Adam winced as he stood hunched over the couch, letting the blood flow back into his leg. He didn’t miss the irony. Even his leg was a better sleeper than he was.

Adam staggered down the basement hall. He turned the hall light on so he could see, but the light was bright and blinding. He made his way, squinting and feeling light-headed. He relieved himself and headed back

He flipped the hall light back off as he slipped quietly back. While the light had been hard to see on his way to the bathroom, his eyes had adjusted, and now he couldn’t see as he returned to the basement din. He winced as he stepped on building pieces as he went. He nearly tripped over the cabin he had helped build. Finally, he groped and felt his way to his sleeping bag, and fell on it.

 Adam tried getting comfortable again. He zipped his sleeping bag up to his shoulders and wiggled in. He let his head weigh into the feather pillow behind him. Nothing happened. He closed his eyes and waited. Nothing happened. What was comfortable a minute ago was uncomfortable now. He tossed and he turned; waiting for sleep, still not asleep.

Adam twisted, pulled and plucked the turquois ring that Jenifer had given him off his finger. It hurt a little to take it off. He set it down on the lamp stand behind his head. He wondered if he would see her again. He wondered if he would wear it again. Not that it mattered now. The Adam who woke up that morning had been a different Adam- one to whom the turquois ring had no perceivable meaning. The ring had become an artifact of that day’s Adam: not of any of the Adams that had come before in the life of Adam. So too would the next Adam wake- different from the last- a new creation perhaps. Perhaps he would wear it again, and perhaps not. That was a decision only the Adam of the morning could make.

Adam looked down to where his toes should be to see only the ambiguous form of the sleeping bag. The sleeping bag was like a cocoon, he reasoned. Adam had learned all about cocoons way back in first grade.

When it’s time for a wormy little caterpillar to turn into a butterfly, the caterpillar forms a cocoon and hibernates. Then it undergoes a long transformation. Then the cocoon splits open, and a butterfly emerges in the place of the caterpillar.

He wondered if butterflies could remember what it was like being caterpillars, or if the time that came before seems only a like a fleeting day dream in the brain of the flying insect- a memory of a little worm-like creature that came before but died inside that cocoon- something no longer worth considering aloft the air- just like the dreams Adam forgot as he sat on the toilet that morning. Adam's still very active mind meditated on this.

Adam wondered, staring up at the skylight in the ceiling. Why here? Why now? After all the pleasures and disappointments of the day, why did it have to come to a close here? He felt sleepy, sure. But he still thought he could still get up, walk the mile-long sidewalk to the park and shoot hoops again if he so desired.

“Half a league, half a league, half a league onward!“ the kids chanted in their English class.

Why here? Why now? He seemed to remember thinking something similar a very long time ago- fifteen hours prior in fact in a classroom where children learned their letters. Long ago. So very long ago.

“Theirs not to make reply, theirs not to reason why, theirs but to do and”-

Adam was starting to go to sleep.

If the sleeping bag was a cocoon, then in only a few hours' time, he too would emerge from that cocoon. He would emerge like a butterfly, no longer the caterpillar that came before- that reality would be lost. But a glorious new one would take its place. He would emerge like a butterfly and live another day- a day he had never lived before- a different day. Perhaps even a better day.

The effect of the TV had worn off. Adam was beginning to realize just how tired he was. His arms and legs were sore from hours of running and jumping and bouncing a ball on the ground. His eyelids felt heavy. His head was starting to ache.

"Cannon to the right of them,

Cannon to the left of them,

Cannon behind them

Volleyed and thundered;" the children from his distant memory recited.

Adam looked around the dark room and up at the skylight over the couch. Through the glass, Adam could make out a cluster of stars against the backdrop of the sky.

He remembered the last time he really paid attention to the night sky. It was a few months prior, one chilly, clear night in January, Adam's father had driven him and his sister up to the top of a mountain with a telescope to stargaze. His father set up the telescope and adjusted his paper star finder to the current date.

"That's the constellation Orion" his father said, pointing up.

Adam had read about Orion. He was in a book Adam once checked out from the school library. Orion was supposed to be a hunter or something. He became a constellation when he died, or so the story goes. Adam had peered at Orion through the telescope. He couldn't see much of a hunter there; just a bunch of disconnected stars- like little holes poked at random into a sheet of paper with a pencil.

His eyelids slowly, hesitantly clasped over his starlit eyes. His breath became slow and rhythmic. His pulse dropped to a sluggish fifty beats per minute. The same body that once ran circles around the gymnasium went limp. Meanwhile, his imagination did leaps and bounds over the constellations above.

"When can their glory fade?

O the wild charge they made!

 All the world wondered."

He saw them all again in his dreams, the parents who sent him off, the students he went to school with, the teachers who tried their best to prepare him for what lay ahead, the boys at the park he played basketball with, the friend who took him home, the business partner who betrayed him, the girl he left behind… They were all there waiting for him in the community park of his brain's filing cabinet.

"Honour the charge they made!

Honour the Light Brigade,

Noble six hundred!"

Lost in the dreamscape, he went to school again, he played war in the park again, he walked the hiking trail again, he dominated the blacktop again.

He slept soundly. He slept so because he was tired. All the activities of the day had taken their toll and exhausted him. The TV had kept him awake for a little while- but not even that could forever ward off the coming of sleep. He slept and he slept well. He slept well through the night because he had lived well in the day. He slept soundly.

But a moment or two before all that, before his mind took him to the community park in the constellations, before he even closed his eyes, he wondered about one last thing. He wondered the last thing without any worrying. So briefly he wondered as he lulled away, what a life he would have to live when the sky was bright again.

Sub-Light 217

Sixteen-year-old Robert Bonaclaw took a deep breath, adjusted the thruster angle and waited. The spacecraft rumbled with the thruster’s last burn. The sailboat pitched down and the curvature of the planet below floated up into the view from his window. He tapped his foot on the floor impatiently and waited.

Twenty days, eleven hours to launch.

The window turned a bright orange color as the sailboat was engulfed in flame. The little cabin began to rattle in the wind. The next fifteen minutes felt like hours- with little more to do than sit. It felt silly not to skip this step but Robert Bonaclaw was not one to be hasty. After the entry plasma had finally disappeared, Robert dialed the barge's communications tower.

"Vinrell Noy barge, Sub-light Two Seventeen requesting splashdown coordinates." Robert said aloud, even though no one was actually there to answer him. Robert set his connection to the tower, and calibrated the altimeter to its signal: eight-hundred kilometers over the sea. Robert adjusted the tail flaps to a sharp, downward glideslope. The little sailboat was now careening out of the sky with an airspeed at nearly 13,000 kilometers per hour.

Stoically, Robert now looked straight at the map on his tablet, checking to make sure he was still aligned with his destination. He noted his vertical speed and looked back again to his altimeter for good measure. Eighty-eight kilometers to sea level, Robert could see the horizon and the ocean far below him now.

Robert waited patiently as the water came closer. Confident that enough air was flowing over his tail flaps, Robert reset the flaps and leveled the sailboat with his ailerons.

Ten kilometers over the sea, the sailboat slipped through a patch of wispy clouds as it descended. Five kilometers over, Robert checked his airspeed: six-hundred kilometers per hour. 'Almost' he thought. 'Almost ready and-' at five-hundred kilometers an hour, Robert deployed his parachute.

The accelerometer shot towards zero. His speed quickly dropped below the sound barrier. The altimeter was falling slower and the speed indicator was dropping faster. Four-hundred kilometers an hour- three-hundred- two hundred: slower and lower; slower and lower. The barges were in view now- but still a good distance away. Gliding slower, Robert's heart sank. He wasn't going to make it.

The sailboat swung from the parachute like a pendulum. Robert watched as the distant waves rolled past the window, giving him only a brief glimpse at the sky. Feeling very helpless, and a little ashamed of himself, Robert watched as the ocean waves came closer and closer and- his flight performance screen flashed before his eyes. Robert pulled the VR goggles off his weary eyes, opened the hatch and stepped out of the simulator and into spaceship's rec hall.

He glimpsed his reflection in the monitor that hung on the wall. It was showing feed from a camera on the outside of the Vole. His face looked tired and angry against the backdrop of the asteroid bellow with its half of the universe beyond it. He was tired. He felt angrier. Just half a kilometer more and he would have made it to the proper splashdown zone- in a personal record too.

'You have to do better than that.' he chided himself as he mounted the treadmill in the exercise area. 'You have to be better than that.'

He cranked the treadmill's speed up, then the slope, then the speed again. Harder and faster, he increased his pace. As he ran, Robert thought about the race. He wondered how it would feel when his thruster ignited and hurled him up from the planet's surface.

Faster and faster he ran, knowing that for five days' time he would fly almost motionless strapped inside a narrow tube, with little options available for exercise. Faster and faster, but not still not fast enough. He ran the treadmill until his legs felt like they could give out from under him. Still not satisfied that he had punished himself enough for his failure in the simulator, Robert paced around the punching dummy and began to strike.

He wondered how it would feel when the sailboat finally fell out of its orbit, and first began to drag against the friction of the atmosphere. Between one impact and the next, he wondered how big of a jolt would come when the parachute ejected, and when the sailboat at long last struck the ocean waves. Harder and harder. His knuckles were starting to feel sore. That was good. Pain was good. He struck the dummy all the harder; harder and harder- but still not hard enough.

Robert opened the hatch to his quarters. He walked through the narrow room carefully, doing his best not to wake his roommate up. That roommate, the captain's nephew Zerriss Lanthey, stirred as Robert stepped through the cramped room. At just twelve years old, Zerriss proudly held title of "cabin boy", making him by far the youngest member of the Vole's crew, just as Robert was when he had first come aboard.

Robert had been promoted twice since he had held Zerriss's position: first to midshipman, a rank which got him out of the ship kitchen and into the hustle and bustle of menial labor in every nook and cranny of the spaceship. The second promotion landed him with the title of "Lieutenant second-class". The captain had only officialized it to spite some adult midshipmen who had been performing poorly. This rank was hardly an improvement to his function, although it often had him put to work taking notes during officer meetings, and filing them accordingly in the ship's log.

Like Robert, Zerriss's father had apprenticed him to captain Markenlay to get an early start to a lucrative career. Robert had been studying at the Prohistawiem knighthood academy when his father had returned to get him. In an hour’s time, Robert had been dismissed from school and boarded onto a spaceship. Two hours later, the commodore shared a meal aboard a cruiser with Robert. The following morning, the commodore left Robert on a boarding dock aboard a spacestation the Vole was scheduled to dock with. “Make a sailor of him.” Had been entirety of the commodore’s written instructions to Markenlay, regarding Robert. The next time Robert saw his father’s face in person was at the commodore’s funeral.

Unlike Robert, Zerriss was talkative and frequently wanted to chat in the late hours when most of the crew was in bed and Robert just wanted to sleep.

Robert climbed up into his bed, clicked off his flashlight, zipped the covers over himself, and closed his eyes. He had timed his schedule so he went to bed well after Zerrus was fast asleep. This usually worked, but not this time.

"How fast?" asked Zerriss from the bunk bellow.

"Not fast enough." said Robert simply.

"How fast is enough?" asked Zerriss.

"Faster." Robert quickly answered.

"Have you started working on the sailboat yet?" asked Zerriss.

"I have to fix it on the drawing board before I can fix the actual craft.” Robert chided.

"Well when you get around to it," Zerriss started, hesitating, "Can I help?" Robert clenched his teeth in annoyance. Zerriss had been trying to drag technical details out of him for several weeks.

"No Zerriss." said Robert. "Were you to mess something up, you could get me killed or disqualified. So, I need to make all the modifications myself." That seemed to satisfy his roommate.

Too angry at himself to sleep, Robert lay awake dwelling on every minute detail of the race, and the sailboat. When he finally did go to sleep, he dreamed only of that day- that hour in just three weeks' time when he would be hurdled into space with nothing but his wits and his sailboat to steer him around the moons of Nethtiside and back. Sometimes he wondered why he was going to all the trouble.

"Robert?" asked Zerriss just as Robert was about to catch some asleep.

"What?" Robert groaned.

"Can I watch when you're working on it?" Asked Zerriss

"That is completely up to you.", said Robert curtly.

Twenty days, one hour to launch.

Robert woke up and gave an hour's worth of attention to the schoolwork he, being yet a minor, was legally required to attend to. He parsed through the instructional videos and skimmed the texts. He had more important things to think about. Even as he ate his breakfast, Robert could not help but think about the race. He reviewed the official sub-light racer's manual as he drank his soup in the mess hall.

"Mind if I join you Bobby?" asked a voice. Robert looked up. Kolner Moakin, the Vole's chief power and fuel systems engineer stood over him. Robert motioned silently to the chair across from him. Moakin plopped a tablet on top of Robert's.

"Thought you should read this." he said. "Reminds me of you."

Robert squinted at the page on the screen- a strange depiction of a spacecraft and a block of text written in English. It took him a moment to read the title- it had been so long since he had used his native tongue.

"Boy's Life March 1964?" he read1.

"Found it in the MUSS archives of primitive societies." said the engineer. "It turns out even your people have some concept of a solar sailboat."

"They don't have solar sails on earth." said Robert matter-of-factly.

"It's fiction Robert, you know, make-believe."

Robert flipped through the pages of the magazine quickly and found little interest in it. He neither knew nor cared how long it had been since he had read any work of fiction. Robert handed the tablet back to its owner.

"Speaking of which." said Moakin, as if they had been speaking of the matter, "How are the repairs coming along?"

Robert Bonaclaw was not one to make conversation. He and Moakin walked down the hall and climbed a narrow spiral staircase to the center of the ship. The sensation of his body becoming lighter as he neared the ship's core felt as natural to Robert Bonaclaw as stepping out one's front door feels to most planet lovers.

Robert now floated weightlessly in the long, narrow shoot that stretched from the engine room to the cargo bay. He ran on his hands, thrusting himself forward from padded bars that lined the chute. He landed with a thud on the outer door of the hanger airlock. Then he swiped his pocket watch over the ID scanner.

The lights came on as they entered. They stepped across the floor, the magnetic soles in their shoes forcing them to take an awkward trot to the corner of the room. There, sitting against a wall, and tethered to the floor by some scaffolding, lay the sailboat- Robert's inheritance.

Ten meters long, three meters thick in total, the sailboat was held to the floor by long straps. It was roughly egg shaped. A fish-like tail stretched from its end, with flaps and ailerons designed to aid the long glide down after re-entry to splashdown.

"Captain Markenlay's given you a nice stretch of real estate.", said Moakin, peering around Robert's work-area. Robert pulled his goggles from a pouch on his belt. He slid them down over his eyes and turned them on. With the goggles on, Robert could see the computer design file of the sailboat appear. Robert had carefully scanned and catalogued every spare piece of old or broken mining equipment Moakin and Markenlay had annexed for his project. Moakin put on his own goggles and examined Robert's work.

"Got a venion reactor, have you?" He asked, surprised.

"It's captain Markenlay's." Said Robert. "He's lending it to me for the race."

"Do you know what its designed for?" Asked Moakin.

"One of the asteroid landers."

"It looks military grade to me." Said Moakin. "Looks almost like something you'd see on a warhead."

"The captain said it was a retired lander that was cheaper to scrap than to repair."

"Markenlay always loved his weapons." Said Moakin absent mindedly as he peered through Robert's files. "When are you going to install it?"

"I am going to finish refining the design before I begin building." Said Robert.

"What's to be refined?" Asked Moakin.

"I have a second thruster I can add, and there will be enough power to run it- especially with the sail providing some of the power.  Moakin shrugged.

"It looks to me like you have a sailboat and a decent idea of how to repair it. I wouldn't try to overcomplicate it before you have something that actually works. You have to engineer something that flies before you get to overengineer it. Overengineering goes with much less agony when you start with something that even just barely works." Robert blushed. He knew it was foolish to be ashamed of his own inexperience, which only made blush all the harder for having felt ashamed at all.

"What should I do first?" Asked Robert. Moakin scratched his thin beard and zoomed into the ship diagram.

"I'm sure you don't need to hear this, but that heat shield looks worn. I'd re-calk it if I were you. But that’s a task for later. Right now, you can't really get to the innards through the cockpit, can you?" He asked.

“I can get to the life-support system through the cockpit.” said Robert. Moakin shook his head. “No, I’m talking about the real innards: the reactor, the power system, the control moment gyroscope.” said Moakin.

"I'd have to crack through the pressure lining." Said Robert.

"So, no matter what, you will need to remove some of the side plating to get at the innards.

"Yes." Robert confirmed.

“Well I’d start there then.” said Moakin. “And let me know if you need tools for anything. But it looks like your off to a good start in that department.” he added, eying a large orange toolbox, strapped to the floor beside the sailboat.

Robert took a torque wrench from the toolbox. He picked a place just past the sailboat's heat shield and moved under the keel. He ran his fingers along the side, feeling of the edges of the metal side plating. Moving his hand further to the right of his head, he also felt of the chipped paint on the spaceship's hull, 'His Majesty's Ship, the Clarabelle', it faintly read.

 Fifteen days, seven hours to launch

Robert maneuvered the mechanical arm carefully. Slowly, he pulled the repaired thruster up from the worktable by a heavy chain. Slowly, the machine moved the thruster to the rear of the sailboat. Slowly, Robert pushed the heavy engine from its spot in the air to see how the holes aligned with the fuselage. Too high, he lowered the arm. Too low, he raised the arm. Too far left or right, and he measured the misalignment with his calipers, and dialed the measurement into the arm's console. The engine was now aligned horizontally but not vertically.

Robert lay down on the floor and reached up to the engine block to measure -

"Distance and trajectory." Said a voice.

"Whoa!” Robert jolted up in surprise, nearly striking his head on the keel. He peered out from under his sailboat to see his roommate sitting on the toolbox nearby. "How long have you been here?" Asked Robert.

"I came in here with you." Said Zerriss. Robert rubbed his eyes wearily. Robert looked at his watch. How long had he been working?

"I just meant to tell you." Said Zerriss. "Distance and trajectory."

"What?"

"That's my dad's motto. Distance and trajectory: that's a flight vector. That's half the job of piloting, he says. Remember that and you can't go wrong, he says. You just measured a distance but not the angle from the thruster bolt holes to the hull's bolt holes. You could have just measured the angle and distance and then you'd be done: that's a distance and a trajectory."

Robert briefly contemplated throwing his torque wrench at Zerriss. He settled instead for a spiteful stare before he slid back under the keel to finish his measurement, and calmly dial the arm. The arm raised the thruster to the correct position: distance and trajectory. Just right: Robert pressed in with the wrench.

"How long until this contest again?" Asked Zerriss.

Eleven days, twelve hours to launch.

"You wanted to see me captain?" Asked Robert, stepping into captain Markenlay’s office. The captain was a lanky, fierce-looking man with sharp eyes the color of copper and skin the color of bronze.

"Yes Bobby." said Markenlay. "I just got word back from the drilling crew. There's been a malfunction with one of the landers. Nothing they can't fix, but they're going to need more time. I'm afraid I have to post pone our shore leave for a day or two."

Robert lived his life in imitation of the man sitting just in front of him. Such had been his father’s parting advice on the day Robert was left in the captain’s custody. Ever since Robert had been keen to observe every discipline and mannerism his captain practiced.

A former battleship captain who seemed to have retired from the Razutheran navy far too early, Markenlay held what seemed to the crew to be near-military standards of discipline and pomp aboard his ship. As such Robert, and Zerriss, and every crew member had their official ranks, given at the captain’s digression. Out of respect for tradition, the hull of the Vole, was painted with the moniker “His Majesty's Ship”, just as Robert’s father had so named the Clarabelle.

When Markenlay went to the mess hall, he always ate quickly and always ate last. Each day, Markenlay spent one hour visiting every station aboard the ship.

Rovert frequently shadowed his captain, and got to learn and imitate many of the personal disciplines Markenlay exercised with his day-to-day life. Markenlay worked for seventeen hours a day, read for two hours, and slept for five. Therefore, Robert tried (but failed) to keep a similarly demanding schedule.

Captain Markenlay always spoke truthfully, and to the point. So, Robert was similarly direct and to the point. In matters of worldview, Markenlay believed in God, and so Robert was equally devout.

Robert had even tried to imitate his captain in his appearance. Whenever Robert went to the service hall for a haircut, he would ask to have his hair buzz cut- like the captain's. For reasons Robert did not understand, the petty officer would never oblige this request. To his chagrin, she would always leave a patch of black hair to flop around the top of his scalp.

Robert glanced around the room. Markenlay kept his office neat and tidy. There was a desk evenly centered on the floor, with its edges lined seemingly perfectly parallel to the walls. On those walls hung portraits of famous leaders and old friends of the captain. Each portrait held a plaque with a quote the captain meant to live by, or some other text to honor the person depicted with. One of those portraits bore an inscription dedicated to the memory of Migula Bonaclaw, Robert's late father.

"I'm not one to break my word to you Bobby." Markenlay chided. "I told you you'd have the shore leave to race, but I'm afraid you might not have much time to work on your project after we get to Nethtiside."

"Should I drop out of the race?" asked Robert. Markenlay's eyes narrowed.

"Do you want to quit Bobby?" Robert felt his chest go tense all at once.

"No sir." said Robert. "But I can if necessary."

"Nonsense." said Markenlay. "Far be it for me to inhibit you."

Markenlay stood up so Robert stood straighter. "I'm suspending all of your nautical activities. Until your race is over you are free to complete your sailboat You can have the extra hours to finish your repairs- and attend to your studies of course."

"Thank you, captain." said Robert, simultaneously relieved and appalled by the news.

Eight days, twenty-three hours to launch.

Markenlay had mandated that mass be held aboard the Vole whenever the mining crew returned. Markenlay worked tirelessly from the moment the mining crew departed and until their return. But for the twenty-four hours after the minerals were deposited in the cargo bay, the Vole and its captain remained in a state of sabbath. When commander Drunnhoff's mining team finally did fly up from the asteroid's surface, Markenlay ordered that a feast of thanksgiving be held for the entire crew.

The landers docked on the side of the vole. Markenlay and Robert stood waiting in the hanger. The twelve airlocks that lined the hanger hissed open. Truck after truck rolled down the grooved tracks from the bay doors and made way toward the cargo hold. Then came the equipment, drills, refineries and vehicles; all needing to be repaired, reoiled, or repainted. Robert looked around. The area of the hanger once reserved for his sailboat was now completely cluttered. The utility robots came out next and rolled off to unload the trucks and stock the cargo hold.

The mining crews came out last- and all headed off to a warm shower and bed. The feast would not commence until the mining crew had been given proper time to rest.

"I'm so hungry!" cried Zerriss, as he glided through the hanger airlock. "I haven't eaten since six after and chef had me peeling potatoes for four hours."

"Zerriss, this isn't a good time." said Robert, as he monitored the reactor's energy levels. Zerriss pulled a pair of goggles form his belt pack.

"What is that?!" he cried when the computer model rendered before his eyes."

"It’s the venion reactor." said Robert.

"I don't think your allowed to use that."

"It meets regulation standards Zerriss."

"No, you're not supposed to teleport."

"It's for power, not teleporting."

"Is handling that even legal?"

"Moakin approved it- actually it was his idea.  I'm just watching it as a safety measure."

The boys watched as the arm positioned the reactor into the sailboat's body. After the arm finished attaching the connectors, Robert deactivated his repaired power system.

"Lieutenant Bonaclaw" boomed the captain's voice over the intercom. "Come back in, the feast is about to start. Oh, and bring Zerriss with you if you find him. Robert glanced at Zerriss wondering if he actually needed to be retold. Robert selected the captain's name on his pocket watch. "On my way captain." he said.

The mining crew had been given their nap. Now the entire force of His Majesty's Vole sat gathered at tables spread all the way from the mess hall to the recreation hall.

The feast was as boisterous as usual. Having spent six weeks on an asteroid with a gravity that was weak and always changing as once drove across the surface, the miners were simultaneously fatigued, and amazed by the standard level of gravity emulated by the vole's centrifugal design. The soil scientist who sat across from Robert claimed she could detect the difference in the speed an object fell. The metallurgist sitting two places next to Robert threw a nut at her nose to test the hypothesis. She counterattacked with a blob of vegetable gelatin, and another barraged the whole table with a shower of synthetic dodo cubes.

The scientist smiled and said that the offense would have been cause enough for a real food fight had she not been so hungry. The conversation droned from nuts to dodo cubes to metals to asteroids to comets to things that go zap, and then to things that go boom, and for an exchange Robert found particularly uncomfortable: to the sailboat in the hanger.

"Listen here boys!" Shouted one miner, whom Robert only barely knew. "Lil Bobby Bonaclaw here's going sail boating!" Several people Robert knew even less than the first began to press him for questions.

"Where are you racing?!" Asked one.

"How far do you have to go?" Asked another. Robert swallowed a mouthful of vegetable punch and answered.

"The race starts on Nethtiside, circles around its twelve moons, and ends in a splashdown area close to the place of launch." Said Robert, trying to answer many questions at once.

"Where did you get the sailboat?" asked one.

"How did you get into that?" Asked another.

"I got the sailboat after my father died." Said Robert. His audience's expressions flashed from delight to mourning. Everyone remembered what a tragedy the untimely fate of commodore Bonaclaw had been. "He listed it to me in his will."

 In fact, Robert's father had bequeathed several possessions and a trust fund to each of his children, but after estate taxes at the state, planet, imperial, and intergalactic levels had been calculated, Robert was left with his father's old, worn sailboat and the promise of a small balance locked in a bank on a planet far away. "A lawyer had it shipped here about a year ago, when we made a delivery to Razuther." Added Robert.

"Oh hey! I've seen that thing sitting in the hanger." Said the soil scientist sitting across from Robert. "I had no idea what that thing was."

"So, I decided to enter the Vinrell-noy race." Said Robert, who quickly stuffed his mouth with a piece of bread just to stop himself from having to talk anymore.

"Oh, come on Bobby!" Cried Kolner Moakin from the far end of the table. His voice was louder than usual and he toted a cup of whiskey in his hand. "That's no way to tell a good story. Tell them about the gauntlet!"

All the nosey adults peered in on Robert.

"Well? About the gauntlet?" Someone asked. Robert gulped down his bread obediently.

"One morning I was eating breakfast and captain came into the mess hall holding the glove of an EVA suit. He smacked the glove against the table I was eating on, and opened a link to a brochure for the race." Robert explained.

"He smacked his glove?" Asked the metallurgist.

"It's an earthing custom or something." Shouted Moakin, butting in. "I was there when Markenlay did that. Captain says something like, 'I read in an earthling book that it is customary to throw down a gauntlet in front of an earthling you want to offer a challenge to.' Then he whacks Bobby's table with the glove and says, 'Well Bobby, consider the gauntlet thrown down.'" The table laughed and Robert felt ashamed, he had never heard of any such tradition when Markenlay gave him the brochure link.

"It was Markenlay's idea eh?" Asked some person whom Robert had met on his first day aboard but whose name he had never learned.

"Markenlay's paying for a heavy half of it!" Cheered Moakin. "Dijdia mines and such copany is officially sponsoring Bobby. 'Raises awareness, good for the business' The captain says."

"So, what made you decide to do it?" Asked one looking at Robert.

"Is it safe?" asked another.

"I... don't know." Said Robert, hesitating. Robert picked at his faux dodo cubes awkwardly while they waited some explanation.

"I've seen his design specs." Said Moakin, coming to Robert's rescue. "He's being very thorough with his repairs. He'd make a great engineer if his heart wasn't set on flying."

After the food was cleared, the ship's chaplain appeared on the screen on every table place. Her sermon rang over the intercom. She preached a sermon about repentance, guiding their minds from the apostle who said "Repent and be baptized every one of you..." To the Christ commanding the sinful and the sickly to lead better lives, "Get up and walk...", To the Baptist in the desert to the prophets, Isaiah, and Hosea; then to Nathan rebuking David for the death of Uriah; and finally, all the way back to Moses leading the Israelites into the wilderness.

“It all goes back to the word: repentance.” said the chaplain. “It's an old word, that means too many different things today. But its original meaning was not a religious word in the least. It was simply a direction. To repent is to turn around, to go the opposite way you were going. I think friends that this is the point: before we sinners can handle the hard work the Lord puts before us, we must first examine our heading.

By this simple test we may evaluate our actions. We must ask ourselves does this option turn me towards my Lord or away from him? After all, St. Paul’s analogy of the footrace of life looks pretty sill if you are running the wrong way.”   
After the sermon had concluded, a moment of silence was observed for prayer and the chaplain's face faded from the table. For a few seconds longer the whole crew sat quietly. Then the soil scientist looked up at Robert.

"So how long do you have for these repairs?" She asked.

Five days and three hours to launch.

Robert attached the vacuum seal over the hatch hole, where the sailboat's only entrance and window were soon to be reattached. He turned on the vacuum pump and checked his diagnostics tablet. The pressure inside the sailboat was listed just below 1 atmosphere, and quickly dropping. The pressure rating dropped to zero with a precision within one one-thousandth of an atmosphere.

"What are you sucking all the air out for?" Asked Zerriss, who was floating four meters off the floor of the hanger tethered by a long strap to Robert's toolbox. "It's a test, I'll be back in a few hours to see if any air gets in."

"Ohhhh, so that way you'll know if the ship will leak air when its pressurized the other way around." Robert did not bother confirming this for Zerriss, he had work to do.

Robert went off to annotate a meeting in which the chief metallurgists, chemists, and business persons advised the captain on reasonable pricing for the Vole's gold shipment. They only had three days left before they would arrive at the nearby Lucklish outpost. From there they would teleport to Hrotherot station on Hytrekis, and from there to the port of island –79, 30;  Nethtiside.

The meeting went on and on as Robert tried his best to note all suggestions properly. Many different venues for selling were considered and debated. Quotas, taxes, and brand loyalty were all given their due deliberation. Robert caught himself at times becoming distracted. His mind would wander ahead of him to Nethtiside to begin the long voyage around the twelve moons.

After the last meaningful thing in the meeting was said, and then after the last irrelevant thing was said, and finally after the last nonsensical thing was said, the meeting was at last adjourned. This of course meant ten more minutes of a much smaller group deliberating over all that had been deliberated. Robert did not care what the decision was, only that he had annotated it properly. The last officers slowly departed, each explaining the business he had now had to attend to as he slipped out the door.

At last Robert was free to return to his simulator or work on his vessel. Then he remembered the pressure test he had started some hours prior. He was certain the pressure test would prove no leakage. Yet, somehow Robert had a strange feeling he was forgetting something. Everything was going to smoothly, too easily. Robert felt certain that some small, but important system was being overlooked. He glanced at his pocket watch to see how much time remained for the pressure test.

Two days fourteen hours to launch

The landers had to be reloaded with the metals that had been extracted and processed. Into one of these landers, went Robert's sailboat. Robert worried as it was loaded. He had re-calked it, replaced the power source, mended the thruster, and checked the life-support system several times. But somehow, he felt as if he had skipped over some tiny detail, but just couldn’t think of it.

“Bobby, you forgot something.” said the captain, as he glided through the airlock towards Robert. The captain landed on the floor and approached with a bulky bag in hand. He handed it to Robert. Robert opened the bag and looked inside.

“An EVA suit?” asked Robert. “I only need my respirator mask to-”

“It's just a precaution.” said the captain. “I would rather you be overprepared than underprepared.”

“Thank you, captain.” Said Robert, not one to argue.

“It should be a good race.” said Markenlay. “Let’s get down there.

Robert, Moakin, and the captain boarded the lander. At the captain’s signal, the little pod detached from the side of the vole. It seemed to fall away from the Vole with the same effect created by the ship’s rotating hull. Then it activated its thrusters and began to fly towards the planet bellow.

Robert watched through a viewing screen as the horizon rose up and the light blue sky of Nethtiside engulfed them. He now felt weightless but that was soon to change. The lander slowed down some fifteen minutes later and hovered over the great ocean bellow. From there it made its way to island 39, 7. The lander touched down at a distribution site.

Robert’s ears popped the moment he stepped out of the lander and into the climate of a tropical island in a midday’s sun. It was hot, sweltering hot. Robert disliked this, being accustomed mainly to the carefully regulated climate of the Vole.

All the wares and metals on board were removed first, and then went the sailboat, in a container on a truck headed to a nearby dock where the barge was anchored. The captain, the engineer, and Robert Bonaclaw checked in to a nearby hotel. But Robert could scarcely sleep. This time for anxiety.

Ten hours and twenty minutes to launch

Robert walked into the banquet hall with his captain. The large room was filled with a crowd of people, all socializing and enjoying themselves. This simultaneously bored Robert, and made him anxious. A bald man in an office jacket mounted the podium.

"Could I have your attention please?" he asked. The chatter grew suddenly quieter and slowly drew silent. "All right then let's just get right down to it. I am Garren Boosk and it is my pleasure to welcome each one of you to the one hundred and twenty-second Vinrell-noy open, manned sub-light tour. We are as eager as each of you to go flying tonight, but first, please assist me in wishing a merry welcome to our lead judge, a man who truly needs no introduction in this crowd- former chief admiral of the Razutheran fleet, Sir Grebloh Pentil."

There was a long gap of applause as an aged, decrepit-looking man climbed the stairs to the podium.

"Thank you." he said in a slow, raspy voice.

"The official regulations are as follows." the former admiral read from the podium's screen, "Item one: All racers must be approved for competition. No equipment may be placed on or inside the vessel without the approval of a judge. Item two: participants are not considered exempt from any planetary, or lunar laws. Participants must obey any and all Nethtisidian aeronautical and astronautical dictums.”

Robert still felt as if he had overlooked something very important in his restoration of his father’s spacecraft. Listening to the admiral read all the rules that could get his ship disqualified only made him consider the many intricate details of the ship, trying to find the one that a judge would mark him down for.

"Item five:” read Sir Pentil, “Launching will commence at the stroke of midnight. Each of the six platforms will launch one vessel at intervals five minutes apart for a total of twenty launches per platform. All vehicles must launch under their own power. In accordance with the recommendations of the count and countess of Churtlion’s atmospheric and orbital safety advisory board, any vehicle that jettisons parts, or human waste will be disqualified from the tour. As such no thrusters may be separated from a participating spacecraft at any time” Sir Pentil stopped short and gave a sly smile. “In short, you have to bring back what you take with you.”

Robert thought about the sail itself. He had checked it for holes, and had once even stretched out the whole sail, folded once across its middle, on the floor of the Vole’s hanger. It had generated even more electrical power than he had suspected. No, it couldn’t be the sail.

“Item eleven: No super-light transportation methods whether of persons or supplies may be employed at any time during the competition. Quantum and super-light devices may be used for communications only. No equipment on board a racer may be controlled by a remote pilot. Computer navigation systems may only be used to set the craft into autopilot or maintain a flightpath set by the pilot's controls. No self-flying spacecraft are allowed.”

But what about the mast? Robert wondered. If the mast failed to deploy at the right time, he would have no chance in the contest. His single thruster was merely enough to take him in and out of orbit. It would not do for racing. But Robert had tested his mast. Albeit, never at once, but he had tested the actuators and had run diagnostics tests on its parts. There was no problem with the mast.

“Any participant judged to be in violation with any or all of these regulations will be disqualified without refund.” read Sir Pentil. “Participants will be scored first for their overall time and second by the weight of their vessels. The participant's score will be calculated by multiplying the vessel's weight by the elapsed time. Participants who complete the course will be ranked in order of the lowness of their scores. The official time for each racer will be measured by planetary reckoning, starting from the moment of liftoff and ending upon the moment of landing or of splashdown.”

Robert began to wonder if Sir Pentil had any information other than what was given in the manual.

“Participants may forfeit the competition at any time.” read the old admiral. “In the event of any equipment malfunction, rescue parties will be available for extraction. We would also like to request that any pilots suffering a medical emergency contact our ground station immediately.”

The whole room burst into applause as Sir Pentil stepped down from the podium as if something truly inspiring had been said. Robert checked the time.

 Nine hours to launch

With little else to do, Robert got in line at the horderves bar. He pressed a button that appeared on a touchscreen and casserole began to churn out onto his plate.

“I hear that casserole is really good.” said a woman with a thick hevostian accent who was standing across from Robert. Robert nodded politely.

“Is this your first-time racing?” she asked.

“Is it that obvious?” asked Robert.

“No”, she said. “I’m just always impressed with how young some of the other flyers are here. I always say it seems like they get younger every year! Don’t I always say that Carloo?” A skinny man standing next to her replied in agreement.

“Yes, always dearest.”

“I’m Triblo,” she said. “This is my husband Carloo. The skinny man bowed low to the floor at the mention of his name. And what would your name be?”

“Bonaclaw” said Robert.

“Hmm.” said Triblo. “That sounds to me like a surname, what do people actually call you?”

“Most people call me Bobby.” said Robert.

“And what do you call yourself?” asked Triblo.

“My first name is Robert.” Robert said simply.

“Hmm. No, I don’t think that quite fits you either. Am I right Carloo?”

“Always dearest.” said Carloo. Robert moved to the next station to fill his plate with berries.

“Well then we’re just going to have to find him a nickname, won’t we?” said Triblo cheerily.

“Yes, I suppose we must do that.” said Carloo in agreement.

“Well then, what shall we call him?” asked Triblo.

“Well-” said Carloo ponderingly. “We could make a contraction of his name- take off a consonant here and there. For example, we might call him, ’Obber’”

“Obber?” said Triblo, laughing, “No, no, no, sweet Carloo. That doesn’t fit the look of him in the slightest. We’re going to just have to be patient and see how he flies in the race. Trust me Ruh-berd Bonaclaw, the best names come out of your performance.”

Eight hours forty-five minutes to launch

Markenlay looked around the room for his apprentice and found the boy standing in a corner, munching on his horderves.

"Bobby," said captain Markenlay. "You have to meet someone. Come along." Robert followed his captain across the conference room and over to a corner where a young man roughly his age stood amongst some veteran pilots. "Here you are." said Markenlay, "This is Quiknith Tillwave, another young spaceman. Quicknith, this is Robert Bonaclaw.

"Robert." said Quicknith, "Strange name."

"It’s Germanic." said Robert.

With a slight sneer, Quicknaith reached out his flexed hand, an earthling custom. Familiar enough with the tradition, Robert clasped it in his own, obliged to shake it. Quicknith clutched Robert's hand as if to crush it, so Robert squeezed all the harder as well.

"So Quicknith," started Markenlay, "Robert won't explain it to me. I can understand what drives some of these crazy old geezers to make an adventure for themselves. But why ever does a bright boy of sound mind decide to launch himself out of orbit with nothing but a primitive sail to steer him back?" he asked.

Quicknith shrugged. "Whether I win first place or not, it will look good on my application to the naval academy." he said. "Uh-huh." said Markenlay, amused. "Good luck tonight." Quicknith half-bowed in response.

“You should beat that kid." said Markenlay as they walked away. "Please tell me you'll beat that kid."

"Yes Captain," said Robert with a smile.

Markenlay and his apprentice headed for the door, the captain stopped just short of it to greet the old admiral who was surrounded by sailors of all ages.

"Sir Pentill" said Markenlay, bowing politely. "It's an honor to see you again."

"Staying out of trouble these days are you Markenlay?" rasped Sir Pentill."

"There's not much trouble to be had in asteroid mining." said Markenlay. "The occasional catastrophic mistake, tunnel collapses, seismic disruptions, drill malfunctions, but no trouble."

"I would think a man of your industry would be prone to chance encounters with a pirate ship or two."

"Nothing the Vole can't handle"

"Are you competing tonight?"

"Ha! No, I can only dream on it." replied the captain. "My apprentice here's the one with the sailboat, you may have heard of him, this lad is Robert Bonaclaw." Something flashed in Sir Pentill's eyes. He looked Robert over.

"If I'd known Migula Bonaclaw's son was racing today, I would have worn my sailor pants." he said. Robert smiled politely. "You come from greatness son" said the admiral. "I know I can expect a lot from you."

Two hours to launch

With weight and size constraints in mind, Robert had opted not to install a life support system with a mixed atmosphere. As such, Robert was now lying on a cot in his room aboard the barge. He was dressed in the EVA suit Markenlay had given him and breathing from a canister of pure oxygen. With the launch mere minutes away, there was so much to worry about. He was sure that the judges were scanning through his vehicle at the moment noting mistake after mistake on the design of his sailboat. No, Robert knew his work well, he and Moakin had scoured through the Clarabelle, they had followed every protocol to the letter. No, like it or not Robert Bonaclaw was going flying. Still, he couldn't shake the sinking feeling that he had forgotten something important.

One hour to launch

Markenlay entered the room with Moakin close behind. Moakin appeared to try to say something but Robert could not hear him. Robert adjusted the suit’s sound system.

“Microphone working?” asked Moakin.

“It is now.” said Robert, who’s voice was only audible in the headsets Moakin and Markenlay now wore.

"The crew's got your sailboat into position, Bobby. It's quite an operation they've got down here" said Moakin.

"It passed inspection?" asked Robert.

"No surprises there Bobby. You did a good job." Robert took a deep breath of pure O2.

"Nervous?" asked the captain.

"I am alright captain."

"We’re planet-bound Bobby, you don't have to call me that. So, tell me honestly, are you alright? "

"It's nothing I can't handle, sir."

“Well, you have a little while yet to pull yourself together Bobby. Whenever you're ready.

Forty minutes to launch

Moakin, Markinlay, and Bonaclaw walked across the deck of the platform to the sailboat marked "Sub-Light 217". There were many teams hustling about the deck, and many astronauts were climbing into their spacecrafts. Robert looked out across the darkened ocean waters and up into the starry night sky. The sky was a dark purple color, tainted with the electric light of the many cities on the islands all around them. Robert set his oxygen take on the deck.

“It's a pretty night to go.” said Moakin looking up at the vastness of space above them.

“As good a night as any.” said Markenlay.

Robert triggered the key on his wristwatch and the sailboat's pressure seal cracked. Robert pulled himself up to the top of the sailboat and opened the tiny hatch.

"Without so much as a good bye." said Moakin chuckling. Robert lay down in the cockpit and Moakin passed the oxygen tank through the hatch. Robert had to squirm his way about the cramped cockpit to strap his seatbelt on. Then he latched the door shut. Moakin knocked on the hatch window. "All comfy?" He asked.

"I'm ready." said Robert, feeling very unready. Robert flicked on his navigational computer.

"Let's clear out the air in there." said Moakin. Robert turned on the startup program and confirmed the 'depressurize' option. Robert could hear first a loud hissing noise that slowly faded as air was sucked from the cockpit. After about a minute's time passed, Moakin knocked on the window. Robert could not hear the percussion of the engineer's knuckles on the hatch, but he could feel the vibration underneath him. Moakin signaled him to turn on the life support system. Robert pressed the right button on his computer and listened as a second hiss of air slowly became audible. With the cockpit now pressurized with pure oxygen, Robert could safely remove his respirator. He closed the valve on the oxygen tank.

“Alright Bobby, I’m going to raise you into position. A piston behind sub-light 217 rose out of the deck, pointing the nose of the sailboat to the sky. “All good?” asked Moakin.”

“I’m alright.” said Robert, who suddenly felt like he needed to go to the bathroom.

“Ok then Robert,” said the captain. “We’re just going to step below deck. Feel free to tell us if you need anything at all.” Robert muted his microphone immediately. He did not want the captain to hear how hard, he was nervously breathing.

Thirty-five minutes to launch

Robert's mentors now stood under the top deck watching video feed of one sailboat sitting on the surface. Robert turned on his navigational computer and could see this feed as well. The craft appeared very different than Robert’s sailboat. The clock struck midnight. Suddenly Robert could feel his sailboat, the entire barge, and ever yjoint in his body rattling. There was a loud, rumbling sound and then Sub-light 201 launched into the sky. The screen flashed white and when the resolution focused again there was nothing to be seen but six little bullets (one from each barge) streaming long beams of flame across the sky. Looking down with one external camera, Robert could see a huge scorch mark on the surface of the barge where a spaceship had been moments ago. The vibration had stopped but there was still a deafening sound lingering above him and nineteen other racers who, like him were waiting in their sailboats to join the first.

“Only fifteen more to go.” said Moakin over the intercom. “Then it will be your turn.”

Six minutes to launch

Robert thought he’d get used to the roar of the spaceship’s around him. Instead each one just made him feel more uneasy. Finally, Sub-light 216 blasted off, leaving four sub-lights remaining. It was now Robert’s turn.

A voice came over Robert’s headset

. “Good evening heat seventeen, this is Garren Boosk. It’s almost time to go. I’m calling in for your final pre-flight reports. Please state your call number and your status, thank you.”

"Sub-light 117 is present and ready for lift off." Said a voice.

"Sub-light 217, ready for lift off." Said Robert

"Sub-light 317, ready and waiting. Said another voice.

"Sub-light 417 is here and ready for blast off."

"Sub-light 517, ready to rumble.

"Sub-light 617, could use an extra- oh wait, no, I'm all good.” There was a hardy chuckle to be heard from seven microphones.

“All clear and good to hear it.” said Garren Boosk. “Thank you all for participating in the Vinrell-noy sublight tour. Please hold tight, we will commence with launching in four minutes.”

 One minute to launch

“Heat seventeen” said a voice. “Launching in fifty-seconds, heat seventeen.”   
Robert took a deep breath of pure oxygen. In and out. In and out.

“Heat seventeen,” said the voice again. “Launching in forty-seconds.” In and out Robert, Robert Bonaclaw thought to himself, in and out.

Thirty seconds to launch

“Heat seventeen” said the voice “launching in twenty seconds. Standby for ignition. Ten seconds felt like an hour to Robert. He began to ask himself again why he was doing this.

“Heat seventeen, beginning ignition sequence.” There was a loud, shrill sound in Robert’s cabin. At once every bolt and sheet of metal around Robert began to rattle. Even the thick padding that lined the walls of sub-light 217 was vibrating.”

“Heat seventeen, liftoff.” said the voice. Robert didn’t feel anything. Looking over to his left, Robert noticed as the tower of his barge seemed to slowly roll down his window. And then the acceleration heaved down on his skull.

The simulator had prepared him well enough for the launch. Almost everything seemed routine enough. Whenever he put the VR goggles on, and took to the sky, the simulator had shaken him about in its cabin, emulating the terrible roar of the thruster, and the violent shuddering of the cabin. Not even the sight of clouds hurdling across his window could surprise him. But there was still one thing the simulator had not prepared him for- it hurt. Blasting off felt as if his head was being crushed under the mass of his own body.

The Vole had flown sub-light before, Robert had made the jump many times at even higher accelerations, but not like this, not with his body set to the gravity of a planet beneath him- not with the rocket shaking in the wind.

His felt strangely in his stomach, and he knew he was going to be sick. He held down the button turning on the vacuum pump in his mask and hurled. He felt his breakfast slide up his throat and out into the respirator's hose. He was feeling woozy now. The shaking sailboat rattled his eyes shut. The inertia tugged downward on his face. He blacked out. When he came to the sky outside his window was completely black.

Five Minutes Since Launch

The sky had not seemed so dark from the barge, the atmosphere ever refracting and deflecting the bright lights of the islands. From here Robert could see stars as one scarcely sees them on the surface of most worlds. The thruster had turned off. He was now locked in orbit over the planet.

Now Robert felt safe. The planet bellow had felt hot and moist. Launching through the sky was exhilarating, but more violent than he liked. Here was something he was more accustomed to: a sensation of constant freefall. With no mechanism of creating artificial gravity on board the sailboat, all orientation of up or down was gone. Just like the astronauts of yore, he felt weightless. The sailboat was keeping steady distance from the planet’s surface and its climate was under his control.

He took off his helmet and unbuckled his safety belt, and with a lot of yanking and pulling, managed to get the bulky spacesuit off. He tossed the helmet, boots, coat, gloves, and pants towards the thruster end of the sailboat. He did not anticipate using them again until reentry, some three weeks in the future.

Robert switched the view on his monitor to the external cameras. Now, he could see the bright hue of the planet bellow, glowing in the light of the star. Little did Robert know that many of his competitors, in their own sailboats were taking their time to break orbit, enjoying every second of their stellar view of the planet. But the effect was lost on Robert Bonaclaw.

Robert had breached the upper limits of Nethtiside's atmosphere, there were no longer any gas particles to damage his precious sail. Now the captain of his own spaceship, Robert manipulated his helm, giving his computer the command to leave orbit. Using his external cameras, he checked the sailboat’s orientation to Nethtiside’s sun. It was time at last to deploy the sail.

The cockpit began to hum as the great actuator behind Robert kicked into action. Robert watched through the camera feed closely as the craft's heat-shielded nose cone split from the body of the ship and swung away on a hinge. The long mast now began to extend out the nose of the sailboat.

It looked like a great reflecting telescope from Robert’s camera’s view. The mast at last stopped expanding and Robert could see the glistening lump wrapped around the end of the sail. Now like a great umbrella, the sail spread out from the mast. It expanded out until almost flat, it spanned some thirty meters from its center.

Robert knew that the six-pointed shape in front of him would soon deflect the light of the star behind the planet. As particles of air in the wind pushed sailboats of old, now photons, the fastest travelling particles known to mankind were striking his sail.

The sub-light craft would never breach the speed of light, only gradually approach it. For that matter, the sailboat’s start was fairly slow. Robert applied his thruster to break orbit and provide some momentum. Soon enough, he knew, the sail would take over as the main power source. Robert set his camera’s sights on the moon of Nidain. So off went heat seventeen with Robert Bonaclaw in the lead.

Four Hours After Launch

Fort some time, there was little power from the sail. Robert would adjust adjusted the angle of the sail, to get the maximum power from the light that he could. But at the moment the planet was behind him, blocking most of the light from the sun.

Robert opened a packet of food, and ate its contents for dinner “Console” Robert said as he ate from the packet “Pull up tonight’s race news.”

A woman standing in front of a large map showing the planet, its moons and the positions of the racers appeared. She was speaking in Nethtisidian.

“Translate this to Razutheran.” Robert instructed.

“Latest rankings from the judges place former champion Stalache Lerton of Glowfin, Hadle as the tour’s leading racer. It is our pleasure to have Citizen Lerton on with us tonight, she is currently calling from sub-light 303 in orbit around Nidelph. Greetings Citizen Lerton.” said the anchor.

“Thank you Mysha it is good to be on the show.” replied the Hadelian.

“Are you safe right now?” asked the host.

The Hadelian laughed.

“Nothing bad has happened yet Mysha.” she said. “But don’t worry! Every tour something happens to someone!”

“It's good to hear you are surviving up there. What difficulties are you anticipating for your flight tomorrow?

“It is still very early in the race Mysha.” the Hadelion answered. “The main issue for the time being is just the amount of sunlight that we have to work with and when. Really, this race will come down to who can time their flight best with the motion of the moons.

“Citizen Lerton” asked the show host, “Island forty-two, three’s sub baron of Peffaley went public yesterday with a statement about the tour. The Peffaly estate broadcasted this message:

‘We were surprised to learn that the Vinrell-noy sub-light tour will be permitting the usage of super-light equipment in a race that has traditionally used purely sub-light equipment is now permitting participants to enter ship’s that employ super-light devices. Have we given up on the sport entirely?’

As someone who has completed this tour many times in the past, with great success, I would like to know what is your position on Grebloh Pentil’s decision to allow such equipment?” The Hadelian sneered and answered.

“What I think your viewers need to understand Mysha, is a lot of things can go wrong in this competition. People today don’t realize how dangerous space flight performed without teleportation techniques can be. And when you combine that element with amateur rocketeers, many of whom do not have proper training and may need to bail out of the contest for their own safety... well, I understand that that concept may be lost on more traditional regimes like the nobility of your planet. But I think Pentil is making the right decision by allowing participants to use computer equipment that could potentially save their lives in a bad situation.

The anchor was quick to move on. “Well Citizen Lerton” she said, “It has been a pleasure and I look forward to-” Robert cut the news clip off. There were so many questions he wished the anchor had asked Stalache Lerton. Was she running at full thruster power when the sunlight was dim? Or was she saving her thrusters for when she needed to escape orbit? How low of an orbit would she be willing to travel in, given her level of skill?

Three Days Since Launch

The days dragged on, each seeming a little longer than before. Robert had thought he would miss bathing regularly and the convenience of the Vole’s toilets. In reality, the waste storage unit aboard sub-light 217 sufficed for his needs, and he had little need to shower because he had nowhere to go inside the padded tube that was his cockpit. Instead, Robert began to miss the open spaces of the Vole, the tiny rooms on board the ship that now seemed palatial by comparison. Most of all he missed being able to feel his weight pressing down on his feet.

Robert was on his third day of the tour, and could not be more pleased. The sun was in his sail and he was entering orbit around the moon of Nidelph, the third moon of the tour. Using a slingshot effect, Robert would remain in orbit, allowing the moon’s gravity to steer him to a turn. Then he would break orbit and fly to the next moon. Robert dropped into a low orbit, taking as much of the planet’s gravity as he believed he could handle. Robert peered ahead, noticing a dark object a little way ahead and above. Robert opened the live map that the news center kept updated, and found the estimated positions of the sub-lights in the tour.

He found his own ship, almost as far as it actually was, and selected the ship just ahead of him. It was sub-light 515, Robert quickly looked it up in the register and soon found the sailboat registered to none other than Quicknith Tilwave. Robert smiled, feeling unusually giddy. He remembered that Markenlay had given him an order to defeat Tilwave, and Robert was content to oblige his captain.

Robert supposed he had probably already done that. Because Quicknith had a ten-minute head start on him, Robert guessed as close as he was, he must actually be in the lead. But that wasn’t good enough for Robert Bonaclaw. Faster and faster Robert went, but still not fast enough.

Robert considered that it was possible that Tillwave had not yet seen him there. He had a chance to take Tillwave by surprise. But what was Tillwave doing? Looking through the feed of an aft camera, Robert could see the keel of sub-light 515 quickly coming towards him. Either Quicknith was descending unawares of Robert’s presence, or he was trying to keep up with Robert by descending into the lower orbit.

 Robert did not dare descend much lower- it was too risky. He also dared not move out of Quicknith’s way, to Robert it seemed he might as well have forfeited then and there if he was to do that. Instead Robert needed to pass Quicknith. He had not been powering his thruster because he usually did not need it and his sail provided the majority of his power. But now it seemed that every little bit of force he could use was essential. He raised his thruster to full power and checked the fuel tank. The rocket engine still had some fuel left to burn. Deciding that this was the best time to use it up, Robert burned the last drop of fuel chasing Quicknith. The sailboat sped faster and faster. But still not fast enough.

Quicknith approached closer and closer but Robert was gaining on him. Robert could see the bottom of sub-light 515’s sail descending just in front of his own. Robert grimaced. He would have to go around his competitor to take the front- or maybe not he was about to pass Quicknith after all.

Sub-light 515 was speeding up and passing Robert. Now Robert was sure Quicknith had seen him. Sub-light 515 was burning its thrusters faster and faster. Robert began to worry- as close as Quicknith was, if he burned his thrusters in front of Robert’s sail it could damage Robert’s ship. But then he noticed something bigger to worry about. Like Robert, Quicknith still had some fuel left over from blastoff, and just like Robert, Quicknith decided that it all hinged on this moment to win the race. Quicknith pushed in his mixture and throttle to maximum fuel and maximum thrust. Robert again considered getting out of the way. But it was too late.

The last thing Robert saw on his console was camera feed from the tip of the mast sub-light 515’s engine block lighting up, and camera feed from the sailboat’s hull of the sail rupturing. Then Robert felt a hard jolt and the planet and his competitor fell out of view. There was a terrible scraping sound, and Robert felt the hull jolt. Thankfully he had been wearing his safety strap, but he still felt the breath get knocked out of him. The lights went out. The computer died. There was nothing but pitch-blackness around him. He breathed hard and heavy: faster and faster but still not fast enough.

Robert tried to unmute his microphone.

“Hello?” he tried.

There was no response.

“Computer? Computer? Hello?!”

There was no response.

Frantically, Robert began checking devices to see what was still functional. He turned on his pocket watch first. The dim light of the pocket watch enabled him to see the fabric of the padded wall in front of him. He moved the manual control stick in his hand. No effect. He tapped on the computer screen. No effect. He pressed the dial to make contact with someone, anyone on the moon bellow him. Nil.

What had happened? He wondered. He guessed that the sail had not adjusted since he had escaped the moon's orbit. He was now on a flight trajectory for- nowhere- absolutely nowhere.

Robert shuttered with fear. He bit his lip, angry at himself for being so fearful. He unbuckled himself and slid down (he had learned the true meaning of up and down by now) and opened the tool box at the engine side of the cabin. Inside were the tools he had been required by race regulation to carry. One first-aid kit, his diagnostics tablet, and a small mallet with a pointed tip, designed to shatter the cockpit window should the sailboat begin filling with water after splashdown. There was also a spare screwdriver kit- something Moakin must have left by accident.

Robert pulled out the tablet and launched himself from the little tool compartment, landing back at the helm. He took the tablet's sensor probe and plugged it into one of the navigational computer's peripheral ports. Robert pulled up the diagnostics program.

"No systems detected." It read. Robert pulled it out and tried again. The same error appeared. Furiously, he began pressing buttons and fiddling with the controls trying to find something, anything that would wake the computer up. Nothing worked.

Robert pounded his head on the window angrily. "Dummy! Dummy! Dummy!" he yelled at the top of his lungs. For all the systems he had checked, and double checked in preparation for the contest he had neglected the one instrument that governed them all. If only I had tested the computer! he thought. In desperation, he looked out the window, looking for any clue- any small hint of a solution in the vast emptiness of space.

There was no telling for how long he gazed into the vast beyond. He looked into that dead space between one star and the next where nothing but emptiness was to be seen. He wondered if perhaps there were stars there, stars whose light was too far away for him to see. He saw it now as if he was seeing it properly for the first time. It was nothing- a great nothing.

The magnitude of his situation began to sink in. With the sail locked in the orientation it had taken just before impact, he was now stuck in some unknown flight trajectory, and to make it all worse: he was traveling so very fast. “Faster and faster”, he had once told himself. “But still not fast enough.”

He wondered now if his machine would ever slow down. He wondered if his ship would eventually encounter the light of some distant star whose impacts would collide with the front of his sail, slowly slowing him down until finally, his craft would be at rest. The craft would rest, but only to begin a slow journey backwards and forwards and backwards again until some state of equilibrium was reached and sub-light 217 rested between the stars in something that resembled a state of motionlessness.

It didn't matter really. The life support system was dead, and he would soon join it. Still he wondered if his craft was truly pointed at blank emptiness. If so, he would keep flying forever into the nothingness beyond.

Robert had no idea if he was headed in the direction of some distant star system or not. If the ship was to ever find equilibrium, the journey would perhaps take centuries, perhaps millennia, perhaps eons. And then, maybe after all that time had passed a solar sail ship of immense proportions would stumble upon the metal vessel once marked “sub-light 217”. He had spent hundreds of hours in the simulator. But there, in the darkened cockpit, he would have gladly traded all those hours of preparation for a Nethtisian star chart.

Four Days Since Launch

He was hungry, so he ate. It seemed silly to eat, when food could offer him nothing but more time to spend dreading the inevitable. Actually, he realized, he would choke on his own breath long before he would have a chance of dying of starvation.

Still, eating felt better than staying in hunger, so Robert opened up a fresh packet of meat and ate. When he was done, he had to relieve himself into the now empty food packets, because the machine that normally sucked up his urine and feces was not functional.

Again, Robert zipped his blanket over his body. He gave it a half-hearted chuckle. It was almost funny. The only piece of the ship that was still functioning- that had not received its power through the computer was the electric blanket. He tried to sleep. He closed his eyes but he could not rest. He was so anxious. He wished he might wake up and find himself back on board the Vole in a steady orbit around some asteroid Markenlay had sought to mine. He would think about what a terrible dream he had slept through- how unrealistic it had been to think a solar sailing race could go so terrible wrong. But Robert could neither go to sleep nor wake up.

He was starting to panic. But panic wasn't good enough. Robert knew better than that. This was neither the time or place to be anxious. The Vole and its crew had taught him to be ever persistent. He had to fight the nagging anxiety. He had to close his eyes, knowing full well that his view from the window was now the only means of seeing outside. He had to take long, leisurely breaths, knowing that every particle of carbon dioxide he exhaled would soon be poisoning him. He had to relax his tense posture, knowing that every idle second was taking him further and further off course. He had to think.

He wondered if someone would stumble upon his ship, in a year, in ten years, in a hundred-thousand years perhaps. He wondered if they would crack the old pressure seal open and find his body. He wondered, morbidly if the air inside the pressurized tube would decay his flesh, leaving only an adolescent's skeleton in a spaceman's outfit, or if the bacteria in his body would suffocate with him, leaving behind a stiff, colorless corpse. It was no longer a sailboat in Robert’s mind. With the white, padded walls all around him, and the open view through the window just over his face- Sub-light 217 was nothing more than a flying coffin.

Robert briefly thought about ending it all right there. All he would have to do was open the latch and pull the hatch open, then ‘whoosh!’. His body would be sucked into the vacuum of space. His death would be painful- he would both freeze and suffocate while his organs expanded for lack of any external pressure. But it would be quick and over soon. He would have the last say. In his suicide he would have his victory over the great nothing- he would decide his own fate rather than resign to the slow, cold demise nothing had waiting for him.

Robert realized of course that this would be impossible. The hatch was pressure sealed and opened in. Thus, he would have to depressurize the cabin before he would be able to open the cabin to the pressure of space. Still, Robert realized that even if he could, he wouldn’t. Any perceived nobility in ending his life was an illusion. To expose himself to the nothingness was just to make a hasty surrender to the great nothing.

These macabre dwellings left Robert feeling ashamed of himself. It wasn't enough to dwell on his failures or ponder his bleak future of his mortal remains. He had to think. He had to at least try. So Robert was resolved. He was going to fight with nothing.

Robert was beginning to understand how fierce of an enemy nothing was. The very laws of the universe dictated that energy spread ever further and further. Nothing- that great driver of entropy was there to suck the heat from Robert’s spacecraft. Robert had his electric blanket to raise his body temperature, but he could not survive in the great nothing. Not while nothing left no means for Robert to resupply his oxygen.

Robert tried the computer again to no effect- he expected none at this point. Now, Robert Bonaclaw found the little holes the screws that held in the faceplate of his computer went in. Robert pushed in with the screwdriver and began to attack. Out they came, one by one, the plating getting looser and looser with each one out.

 After the plate was loose from the wall, he reached through the hole and plucked out the cables that ran to the monitor and tossed the blank screen aside. With the last screw floating around the air, he pulled the whole control panel off

“Ah!” he cried, cutting his hand on a piece of the control panel plating. It was sharper than he had expected. Well trained for such situations, Robert got his first-aid kit and bandaged the wound up with some gauze and adhesive tape.

While he tended to the injury, he wondered what his father- that great sailor of space would have done there in the lonely cockpit. No, he already knew the answer. His father would never have gotten himself stuck in such a terrible position. His father would have run tests to see if the computer could handle harsh, unexpected turbulence. He would have been wiser than to try to sneak past a competitor with so narrow a distance between them.

Robert floated in silence. He had not fully admitted to himself why he had agreed to participate in the contest to begin with. Markenlay had offered him the time and recourses to compete, but that was not what had so motivated Robert to get his father’s old sailboat running again.

Robert had been away when his father died, he had not even been able to attend the commodore’s funeral in person. Robert had watched the funeral virtually from afar. He met that day many other Bonaclaws, children the commodore had sired on other worlds. Some were older and some were younger than Robert. At the end of the day, when the fleet admiral launched the few remaining mortal remains of Migula Boncaclaw into space, (as was fitting a sailor of the commodore's repute) Robert was just another of his father’s many children. Somehow, Robert had sought impress his dead father.

What’s wrong with me? He wondered, contemplating the implications. Was he still in denial over the death of his father? Had he simply not wanted to let the old sailboat waste space in the company’s hanger? Or was he rivaling siblings he had never known to impress a dead man? His father’s remains were launched into a great nothing like the one Robert now occupied. Was that why he had come so far? To seek his father out in the nothingness?

In his mind he worked through the alternatives, but he knew that with every second he hesitated the air in his oxygen takes was running thinner. He was not his father, and his father was not to be found in the great nothing. It would not do to dwell on how he was not his father- it was that kind of thinking that had gotten him so lost after all. Now was the time to be neither Migula Bonaclaw nor Endwick Markenlay. He could not afford to lose any precious air. He, Robert Bonaclaw, was the captain of Sub-light 217, and the captain had to get the scrubber working.

Robert slid his diagnostic tablet to a sleeve on his right pantleg. He went back through the little hole where his monitor once was. He passed the computer and soon found the scrubber: the center of his ventilation system. He attached the tablet’s little probing cables to either side of the power input. The tablet measured a steady, high voltage. The reactor was still supplying power. It was only the computer that was failing to tell the scrubber to run.

Robert understood how fortunate this could be. If it was after all only the computer input that was lost, then he either needed to repair the computer, or he could perhaps override it. Robert knew little about computer hardware, and did not think he could figure it out without liberal usage of the same computer’s comm system. He, instead found the plug that ran from the scrubber to the dead computer, and yanked it out of one of the computer’s attachment ports.

Thinking quick, Robert unwound the excess cable and pulled its head over to the dislodged plate he had cut himself on. He rubbed the cable over it and used it as a cutter, then he dragged the insulation over the edge and used it as a wire stripper. The result was three strands of wire. Robert guessed correctly that one was connected to the ground terminal, and the other two represented inputs to the scrubber. It was all just there to tell the scrubber when to turn on and off. Robert wondered if all he needed to do was tie the wires together- no, there was no telling what the exact signal the scrubber needed was.

Robert scratched his head. He had made a good study of most of the ship’s systems. He had even cleaned out the filter of this very scrubber. Rather than try to fool the scrubber to think the computer was talking to it, he removed the side of the scrubber with his screw driver and dug his way to the tiny circuit board that received inputs from the computer. There, he identified the wires that represented the scrubber’s power, (the circuit board’s input) and the wires that ran directly to the scrubber’s motors. If Robert was right, this little circuit board was the controller he wanted to bypass.

He retrieved the sharp metal control panel and cut one of the terminals that went into the controller, knowing that the other input was common to both, Robert stripped the head of the wire he had cut and touched it to the wire on the other side. There was a short-lived spark and a persistent hum that followed. The scrubber had turned on.

Robert shouted out in jubilation. He could breathe again- as much as he wanted! In and out to his heart (and lungs’) contentment. If Robert was to die in the great nothing. It would not be for want of oxygen. He was happy for the moment. But the dread returned with one glance to his window. Nothing was still outside, waiting so, so patiently for him.

Robert zipped his electric blanket over himself to sleep. He looked out into the abyss again. This time, he arched his head towards his feet and said a prayer. He tried first praying to a heavenly father, as Markenlay sometimes did. But Markenlay wasn’t there. Robert was the captain of sub-light 217. He prayed to whatever God there was, if there was in fact a God and one who could hear Robert’s pleas for deliverance in the great nothing. He prayed simply that whatever power, whether natural or supernatural, that could make a something in the nothing might give him a planet- even a gaseous one to slingshot around.

He wondered if he might try bargaining with the almighty- but Robert was keen to see the foolishness in that: looking out into the great nothing Robert understood. All he could offer up to one who wrote the laws of existence, was nothing.

Robert closed his eyes to sleep, no longer sure of what he believed. Still, Robert slept a little easier.

Five Days Since Launch

Robert ate when he woke up. He counted up his supplies. He had enough food to eat comfortably for two days. Then- unless his prospects changed dramatically, he would starve. He was still headed for nothing after all.

The proverbial wisdom Zerriss had shared in the hanger came back to Robert in a flash.

"Distance and trajectory" Zerriss had said. The words sounded in Robert’s mind as if Zerriss had only just repeated them. Distance: Robert had succeeded by the first metric. He had traveled far. Even now he was hurtling through space at a speed so few people ever travel at. No, Robert's error was not in his distance. It was not even in his speed. Robert's error was in his trajectory. After all his training, after all his calculations, and his hard work of training, Robert had neglected to consider the very definition of a vector.

"Distance and trajectory" Zerriss had said. "Distance and trajectory." But Robert hadn’t listened. Only now did he understand the wisdom of the phrase. Going far and fast only lead to disaster if the ship was pointed in the wrong direction. The chaplain too had tried to warn him.

"Before we sinners can handle the hard work the Lord puts before us, we must first examine our heading.” she had said. If only Robert had listened...

His scrubber was repaired. Robert took long deep breaths of his pure oxygen. His replenishable supply now seemed a heaven-sent gift. But his heading was still wrong. He had air to breath and a few days’ worth of food to eat. But unless he could get himself turned around (the chaplain used the word repent), the journey ahead could lead only to starvation.

He had repaired his scrubber by bypassing the broken computer. He could repair other systems as well. Robert squeezed himself back through the console panel, moving carefully so as not to cut himself again. He flew past the computer and toward the end of the sailboat’s interior. There was a bulky instrument here, one Robert did not fully understand. It was a strange looking device, like a globe on a stand. It was the gyroscope. Normally air was blown through it, and it stayed in motion, ever rotating about an axis. Robert’s navigation controls could have made quick work of turning around- if this device had been working. But the fan that powered the gyroscope was dead. The gyroscope was still.

Watching closely in his light, Robert got a hand around a cable and followed it back to the computer. He yanked it out from the broken machine. He took up the sharp metal plate again and cut and stripped the wires to his need.

A spark flew as Robert connected the wires. ‘Zap!’ the fan’s made a short-lived hum. There was a horrible burning smell. Robert knew at once what had happened.

“No! No! No! No! No!” he groaned, hurling himself back to the gyroscope. Quickly, he attached the probes of his diagnostics tablet to either power terminal of one of the fan motors. He reached into the fan with a screwdriver and gave the blades a spin. A miniscule voltage spiked- it gave Robert some vain hope- until he read the numbers. This voltage was negligible although deep down, he had already known that. He had burnt out his gyroscope’s fans. There was no turning around with that instrument. “No! No! No!” Robert cried his dissent and pounded his fist on the padded walls of Sub-light 217.

Robert now looked out into nothing and puffed up his chest with anger. He hated the nothing; nothing, that was there waiting to swallow him with the pass of time; nothing, that was seeking to freeze him to death with the very laws of thermodynamics that had enabled the construction of his sailboat. He cried his frustration out into the empty cockpit. He cursed and spat at nothing. He wished terrible things upon nothing- wishing that something- anything would happen to nothing.

In short, Robert missed things. He missed seeing the view of a planet and its moons in his window. He missed the Vole and its crew. He missed the captain and the engineer. He missed the cramped quarters where he slept. He missed the spot in the hanger where this all had started- where it had been nothing more a fanciful dream he brought into reality with each twist of the screwdriver. Sometimes, when he got to feeling particularly desperate, he even missed his roommate. He began to weep.

He breathed in. He breathed out. Sailors weren’t supposed to cry, he told himself as he sobbed. Sailors could swear and curse to their liking. But they weren’t supposed to cry. With no gravity, artificial or otherwise to wipe the tears from his eyes, the tears coalesced into a large bulge that stretched from one eye to the other across the bridge of his nose. Robert wiped the blob of water on his sleeve- and then the next blob- and then the next. Robert loathed himself for doing it. With his water purifier yet disabled, there was limited water to into his body as it was. But he carried on nonetheless.

With all the spite and angst he could muster, he yelled and cursed at the empty space outside his window. He leaked his body’s water supply out his eyes until his sleeves were completely saturated and little specks of water were breaking away from them and floating about the cockpit. He let it all out there in the great nothing and was satisfied. He had at least poured out his pain and despair in the nothing. It was all nothing’s problems now.

A fresh kind of calmness came over Robert. He felt like he could breathe again for the first time in a long while. He thought about everything that had passed to bring him to this lowly state, so far out into the beyond. He began to think again.

He thought all about his beautiful sailboat, and about how lucky he really was. Only sixteen years old and already the sole captain and owner of his own spaceship. He thought about every piece of that spaceship- that was rightfully his own. He thought about the destroyed sail, the broken water filtration system, the useless computer, the expensive reactor, the engine that had run out of fuel, and the thruster.

The thruster! Rober thought. He thought very hard now. Yes, the thruster remained in the back of the ship. Considering where Sub-light 515 had been positioned when it hit him, the thruster had been better protected than Robert himself had been. If any piece of equipment had been totally spared from the blast it was that.

The thruster had been aimed to launch the sailboat from the surface of the barge. But if instead it was angled- pointed perpendicular to the hull then-

It would make absolutely no difference at all. He thought. And he was right. If indeed, he somehow could re-angle his thruster, and apply power to it the thruster would merely send him flying in another direction. The ship would go on forever with that new momentum as well. It would do nothing to slow down the direction he was flying off in.

But Robert knew he was on to something. What he wanted, really, was to use his thrusters just like the small thrusters on the side of the Vole that kept its main shaft rotating. But that system used many thrusters, Robert reminded himself. Out there in the great nothing, with no air resistance to fly through, Robert would need a second thruster to turn the ship. He thought about the ship’s rocket engine, if only he hadn’t burned up all the fuel- he thought.

If he applied a force to one side of the hull for just a few seconds then the hull would keep a steady momentum after he stopped applying the force- after the thruster was turned off. Robert contemplating this. And if the thruster could be detached and moved to the side, perhaps it could be moved a second time. Therefore- Robert had it. He knew how to steer the ship. It would be very difficult but it was at least plausible. He would need to extend the thruster’s power cable to be at least the length of the sailboat. Robert did not have wire to spare inside the cockpit but he knew there was plenty in the now worthless sail.

All of this depended on Robert doing something he dreaded. He would have to leave the safety and security of the sailboat. The EVA suit the captain had given him was going to be used after all. It would soon be time for a spacewalk.

Robert began making preparations for the dreaded task. He returned to the scrubber and disconnected it from his main ventilation, instead Robert used it to fill the spare oxygen tank he had used on the deck of the barge before he pressurized sub-light 217.

Robert took the piece of metal plating he had cut himself on earlier. Deciding it was no longer a piece of the sailboat, but a knife to slash the sail apart, Robert bent the blunt edge against the metal plating that guarded the dead computer. He bent it back and forth, over and over. It was a hard chore at first, but it got easier each time. When it was sufficiently loose, Robert broke off the undesired corner in his fingers. He put a clip through a hole where a dial was meant to go and hooked the saber to a strap on the EVA suit’s belt.

Robert thought about spending time fashioning better tools to make his work easier. But he remembered that his time was ever running out. His air supply was full and he had the tools he needed for the time. Still, he was not one to waste oxygen. Robert connected the scrubber’s pump to the ship’s oxygen tank.

Once again, he twisted the bare strands of wire together. He could hear the pump turn on. The sound of air sucking into the sailboat's tank faded slowly as the pressure dropped in the cockpit. After a few minutes time Robert felt confident that the pumps had done their job. He could no longer hear the motor without touching the faceplate of his helmet to the console. He plucked the wires apart, turning the pump off. The only air he had to breath came from the tank strapped to his EVA suit. It was time to open the hatch.

He could hardly believe he was actually going to do it. Reminding himself of his bleak alternatives, Robert unfastened the bolt that latched the pressure seal shut. After that just one little tug was all it took. The hatch swung inward. Then slowly, carefully Robert Bonaclaw began to stand up. He peered out with his eyes first. Seeing that he was still alive, Robert planted his gloved hands firmly on the rim of the cockpit hatch.

Carefully, Robert raised one boot out of the cockpit. He set his foot down on the hull slowly. He felt the pull of the magnet it his boot's sole pull towards the metal hull. Gingerly, he stepped onto the hull, crouched low so as to keep his gloves on the surface of the hull. Like a rock climber with no safety rope, Robert intended to maintain three points of contact at all times. He dared not walk but rather slid his shoes and gloves across the heatshield as he drudged carefully towards the mast.

Now at the mast, Robert gripped the slender pole with his hands. Slowly, he landed a boot onto the mast. There was no click. The mast was not magnetized. The journey to the base of the of the mast felt as if it had taken hours. But now, Robert wished he had more hull to pass before trying to climb across the mast.

Robert quickly found that the mast had some advantages over the hull. The mast was thin, as such, Robert simply needed to lock his legs together around it and pull forward with his arms. Once simple thrust would have propelled him to the sail, but Robert instead opted to crawl arm over arm, always ensuring that one hand was gripping the mast at all times.

Now he came upon the bend at the end of the long, straight pole, from here it was a long climb across the side of the sail. Robert could feel the heat of Nethtiside’s sun on his back as he climbed.

Then he had finished climbing to the very edge of the solar sail, Robert dared to look back at his vessel. The egg-shaped hull with the open cockpit hatch seemed so far away now. Robert plucked the knife which had been taped to his arm. He aimed the tip of his makeshift knife at the sail: the point of no return. Robert took a deep breath of the oxygen strapped to his back and punched the knife into the sail.

He couldn't understand why, but it felt horrible to cut away the golden sail. The sail began to curl up into a roll as he cut it free of the frame. It was hard work pushing the knife along, sometimes having to cut through wire as he crossed.

It seemed a terrible waste just to toss the sail away and he soon realized, it was. The long power cable that ran from the ship to every end of the sail was sturdy enough and already attached to the base of the hull. Perching on the mast, Robert stuffed the cable through his spacesuit's outer belt and dragged the entire sail behind him as he began the long crawl toward the cockpit. For a sail as large and as wide as it was, Robert again was surprised by just how light to pull it was. Not that it was an easy task, the thick wire made for a strenuous exercise as Robert was as careful as ever to drag himself toward the cockpit.

When he did return to the airless cockpit, Robert stuffed the sail into the hull, and finished cutting the thick power cable free of it. He checked his watch. Robert had a plan for the former solar powering cable. It was as dangerous as his scheme to cut the sail, but if successful it would allow him to safely remove the thruster.

Just as before he crawled across the hull, this time with the power cable still looped through his belt. He slid his way this time toward his spaceship’s tail fins. There, he tied a long piece cable, stretching across the hull and to the of the sail, to an axle he could reach between the stabilator and the hull. With a smaller piece of wire, he fashioned a tether that he used to leash one of his belt loops to the longer cable. Robert could now move about the hull without concern of floating off.

Now Robert attacked the thruster. It was hard work, manipulating a screwdriver in the bulky spacesuit. Using a piece of sticky tape, Robert stuck his glove to the side of the thruster. He was starting to get a feel for space walking and moving around the exterior of his sailboat no longer seemed as unthinkable as it had only an hour prior. With the screwdriver in his hand, Robert began removing the screws that fastened his thruster to his sailboat.

With the thruster removed, Robert planet it on the side of the ship and applied a liberal amount of tape. It was not ideal but it was going to have to do. Robert crawled back into his cockpit, slid back down to the computer, and removed the wires that would trigger the thruster.

Now, holding the bare wires along the index finger of either glove, Robert hooked his fingers together. Immediately he felt the wall shove into his body: success. He held on for several seconds, allowing the thruster to push the ship sideways. He let go, disconnecting the wires. He hoped it had been enough.

He went back out to the thruster again. Again, he removed it, this time to take the thruster to the other end of the ship. The cable that powered the thruster was of course too short for this task, so Robert had to use more of the solar sail’s spare power cable to lengthen the cable enough. He twisted his connections together and put tape over them for insulation. This was also not ideal. But this too would have to do.

Now perched on the end of the mast, Robert rolled around, so that he had to point his eyes up to bring the distant planet Nethtiside, and the few moons he could still see into the center of his vision. This, he knew was the direction the thruster needed to push in next. Said thruster was currently floating a few meters away, tethered to sub-light 217 by the power cable.

Robert took the emergency shatter mallet from his toolbelt and used its pointed in to scratch a mark into the end of the mast. Then Robert raced along the side of the ship, sliding along his cable to the rear of the ship.

He repeated the procedure many times, scurrying back and forth across the hull labelled “the Clarabelle”, with his ship’s only thruster in tow. Sometimes he just switched sides. Sometimes he dragged the thruster across the hull and mast. It was a tedious process.

Again, and again, he triggered the thruster, each time getting closer and closer, but always overshooting the planet. Back and forth the bare mast turned, passing the planet each time- closer and closer, but always missing the mark.

Robert felt strangely comfortable now, facing down the great nothing with just a spacesuit to protect him from nothing’s nothingness. He was applying yet more tape to his thruster when he happened to push too hard on his hull. He had become too comfortable and had neglected to watch his make-shift tether. The knot that connected his suit to the tether had come untied. When he pushed on the tape he broke his connection with the ship and pushed himself away. He was now drifting away from the safety cable.

Robert winced as he reached for the cable. Had he not been constrained to the EVA suit; he might have touched it. It seemed that Robert had at last made a truly fatal mistake. With nothing to slow him down he was drifting away from sub-light 217. The sailboat turned life raft had a chance of making back to Nethtiside. But with nothing to slow him down he would keep drifting for an arbitrarily long time. Further and further he went. He couldn’t turn around but he didn’t need to turn to know where he was going: straight into the great nothing.

But Robert’s mind was quick. He thought perhaps he could launch himself back towards his ship. He had a tank quarter-full of pressurized oxygen after all. If he just removed his backpack, he could use the tank to propel himself to the ship. Robert unstrapped his backpack and dislodged the tank. The idea seemed reasonable enough. There was yet an oxygen tank and a scrubber remaining inside the sailboat. He could in theory repurpose the tank to feed into his EVA suit if necessary. He also knew that there was undoubtably oxygen within his helmet and spacesuit that would keep him breathing until he could re-pressurize the sailboat. Robert closed the valve between the suit and the tank and disconnected the oxygen tank.

Thankfully, Robert did not go through with this plan. A memory flashed before his eyes. He remembered sometime, a long time before, when he was just another earthling boy in a Midwest American suburb. He was at a child’s birthday party. Perhaps it had been his own. They had inflated balloons there- and when a grown up cut the end of one the balloon flew round and round the room in every direction. Robert held his hand back from the valve. The idea had been good in theory, but he may have been just one little torque short of hurling about the great nothing like that balloon.

Instead, Robert looked up (he now knew up simply to mean the direction of his head) towards the hull of his space ship and heaved his oxygen tank down, aiming for the great nothing. The push propelled him up. He drifted slowly toward the sub-light. He had worked quickly, he had never been more than a few meters away from the sailboat, and his aim was good Robert bumped into his sailboat, grabbed the safety line and pulled himself back up into the cockpit.

One last thing for Robert to do for the meanwhile, he bent a piece of thick wire that had supported the sail into an “L” shape and fashioned a periscope on it using a piece of the sail’s reflective foil. When he closed the hatch, he would again be able to see where he was going through the window. He worked quickly; the air was quickly getting thin inside his helmet.

Now that there seemed little for Robert to continue doing, he slipped back into his sailboat, looked around the for the last time. Then he carefully raised and sealed the hatch. He plugged the scrubber back into the ventilation system and, when he could hear again took off his helmet. He breathed in and out, knowing that every puff of air he freely inhaled and exhaled was a blessing.

Six Days, Twelve Hours Since Launch

For the whole journey, Robert had never really felt claustrophobic. That was different now. Robert had floated outside, with an infinite amount of arm room to content himself with. Now his space felt small- disturbingly small. He felt constrained and blind in the sailboat. Still, he could at least see the spiraling galaxy in the golden reflection of his periscope. He was headed for something after all.

Robert had been expecting that the emergency could only end at the very last minute. Instead, Robert found himself now on the right course, with a good heading, and nothing to do but wait. He ate meagerly, trying to ration his food. He cried excessively. He slept without an alarm for as long as he pleased, no longer caring what time it was or how much time had passed. He did summersaults in the midair of his cockpit, just to have something to do.

When he was feeling particularly industrious, Robert worked on stripping out the cables that powered the rudder and the stabilator. Rober knew he would need those for the long drop down after he reentered the atmosphere of Nethtiside. The system he devised, was a single wire that represented input power. And sixexposed output wires each of which tilted either the rudder or the ailerons either one way or the other. He at first planned to ride the wind down to the sea, but later discovered the module that held his parachute, a seventh wire was added for that function.

When he looked out through his periscope, and could see seven of the twelve moons, still a long way away- but getting closer. A verse from an old nursery rhyme came to him. He wondered how long it had been since he had recited it- or even heard it for that matter. It was an English jingle, something he must have heard when he was a just that small boy living on earth.

“Hey diddle diddle the cat and the fiddle...” he recited- first in a whisper. “the cow jumped over the moon.” He thought about the exact words he was repeating. What did they mean? Robbert did not know what a fiddle was, so he made his best guess- probably the English word for some other four-legged mammal to accompany the cat. He wondered, briefly if the song alluded to some historical moment Perhaps the cat, the cow, the dog, and the dinnerware were representative of some people who lived once- or icons with some symbolism.

He wondered if earthlings had yet made a satellite to orbit their moon, which they had named “the cow”. That sounded to Robert like a strange name for any spacecraft- unless considering the earth’s position in galaxy known on earth as “the milky-way". The dish and the spoon were then of course a satellite dish and its feedhorn, positioned somewhere on the earth to pick up the signal from the astronautical cow. And the little do.

Robert stopped himself there. He was not one to speculate such things. It was a silly little tune after all. It was not worth his effort to try to rationalize it. But it did not seem right to forget the poem altogether. He reasoned that his mother must have once taught it to him. Somehow, reciting the poem was comforting.

Now, putting the old words to a tune he had heard somewhere very different, he tried singing it. His voice cracked and stammered as he tried to annunciate the song. It didn’t matter. To sing the old silly rhyme seemed to be just that, a silly thing. Nevertheless, Robert sang and smiled. To sing the silly song, he pondered, was to defy the emptiness of that great nothing Robert had sworn his hatred to. He sang louder and louder.

He didn’t know what the song meant. And he did not care. Robert wondered if he was now understanding the true meaning of the song: there was none, and that was not such a bad thing. The little dog laughed, and Robert laughed with it. It was such a funny sport to see after all.

Eight Days Since Launch

The planet was getting closer now. He could now make out the thin, pale blue line of Nethtiside’s sky. Robert’s aim had been good, but not perfect. Not that it mattered all that much. Robert only needed to come close enough. Gravity would take care of the rest.

Robert reached up with his mallet and now scratched the window- etching out a circle that fit neatly with the planet’s surface. Now he could watch as the planet moved across that line whenever he wanted to check his approach..

Nine Days, Eight Hours Since Launch

Once again, just as he had countless times in the simulator, sixteen-year-old Robert Bonaclaw took a deep breath and touched his little control wire to the contact that pointed the stabilator down. The sailboat pitched down and the curvature of the planet below floated up into the view from his window. Robert adjusted to a sharp, downward glideslope and waited.

The window turned a bright orange color as the sailboat was engulfed in flame. The last thing Robert saw through his periscope before it burned away was the sight of clouds, tinted orange in the sail, blowing over the dark ocean far below. The little cabin began to rattle in the wind. The next fifteen minutes felt like hours- with little more to do than sit.

The plasma finally faded. Normally, this would be the time that Robert would have contacted one of the barges to let them know he was coming in. But he was sure that the race was long over, his communications systems were nonfunctional, and he could not have waited in orbit to line himself up to land at one point in the ocean on a planet that was predominantly covered in water.

Not that it really mattered. After all he'd been through, he was no longer particular about where he splashed down, although he knew he should have been. Starving in the middle of the ocean with little chance of returning to shore was only marginally better than starving to death in the vacuum of space. Robert set the flaps to descend. The sailboat was now hurtling toward the ocean with the nose pointed straight down- or rather up from Robert's new perspective.

Robert felt weightless now as he had in space. He still could have floated around the cabin if he desired but he was smarter than that. He remained in his seatbelt. He was in fact falling after all.

Now more than ever Robert wished he could see his instruments. Out beyond the atmosphere, Robert had the illusion of time to spare as he pondered his dire situation. But now, falling as if to crash, Robert wished very much that he could have some clue of his airspeed. He could see the ocean now, by looking at the very top of his window- as if a massive sphere of water was slowly descending toward him. This sight alone was all he could tell. Sooner or later he would have to pitch the sailboat to a trajectory near tangential to the planet's surface. Ironically, he was now working to slow sublight 217 down, so as to make for a soft landing and at the same time, to speed it up to get the air flowing over his tail so as to give him some control of the long, long drop.

He knew that there was no point in deploying a parachute yet. Robert connected the wire on his thumb to the right aileron control. He pitched it up, aiming for a gentler descent. He watched the waves far below sloshing violently- all controlled by the distant motion of the planet’s twelve moons.

The sailboat's ailerons gave Robert just enough control to glide down to the ocean. He watched through his window as the open sea came closer and closer. Wishing hard that he was neither on a path to crash into some island nor flying to fast to splashdown, Robert made contact with the seventh wire and the parachute ejected.

The parachute caught the breezy air. He almost lost his lunch as sub-light 217 flung down and up like a pendulum on the end of a long string. Robert looked through his window now to see a blue sky and a dark blue ocean rising slower and slower and-

‘splash.’

Robert lay listening to the sound of ocean beating the hull of his sailboat. It wasn't comfortable. The violent waves tossed him up and down again. Robert felt like he might become sick. But, at least, his mind for the first time in a long while could be quiet. There was no more to calculate. No more to be thought out, beaten out, cut up, and taped together. He rested his exhausted brain. All he could do for the moment was wait.

Then there was a 'thunk' on the side of the hull. Robert opened his eyes with excitement. He could hear voices- not voices in his head, but actual human voices just outside his cockpit. There was a clattering just over him, and then the face of a man in diver's gear appeared in the window. The man yelled something in Nethtosidian through his respirator.

"Blink twice if you understand!" Bellowed a woman's voice through a megaphone, translating into Razutheran for Robert. Robert blinked twice. The man in the window yelled again.

"Do not open your hatch! Blink once for 'no' and twice for 'yes'." Called the translator. "Are you Robert Bonaclaw?" Two blinks

"Can you breathe comfortably?" Two blinks

"Are you injured?" One blink.

"Is there any seawater inside?" One blink. Robert could hear some chatter in loud Nethtisidian voices outside. A clambering noise as before, and then the sound of a loud motor. Robert began to worry that his rescuers were abandoning him. Then Robert could feel himself beginning to move again. And he understood. He was being towed in. On another day, Robert might have wanted to know who these people were or where they were taking him. But now all he really wanted was to stand on solid ground again.

He watched the clouds above roll by his window as the Nethtisidans dragged his sailboat in until finally Robert heard the rough sound of his keel and his floats scraping against the shoreline. The sky seemed to stop moving. For the first time, in a long while, the sailboat was (relatively) motionless.

A new face appeared in the window.

"You can come out now." She said, the voice that had translated for him earlier. Robert unlocked the hatch and pulled back on the lock. With the lower pressure inside the cabin, it took some effort to push the hatch up and open.

A flood of sound rushed into his ears the moment he popped the hatch from its O-ring. He lifted his head through and peered out onto the beach. His ears popped. In front of him was the ocean- seemingly endless from his view. To either side was the shore, lined with sand, dotted with a rock or two, and with the hulking towers of the city standing just beyond it. Behind him was a large coast guard hovercraft, tethered to his sailboat by a chain.

Robert tried to squirm out, but failed. He only now realized how tired his entire body really was. He could hardly move his arms. He couldn't push himself out. Instead, two coast guards reached in and pulled him out by either arm. Completely disoriented, Robert rolled over the side of his hull and fell into the sea water. The guards picked him back up and supported him as he limped, dazedly out of the shallows and onto the beach- away from sub-light 217.

They lowered him down onto the sand, and without another word went about their business of removing their chain from the sailboat. Then, with their chain reeled in, the coast guards climbed aboard their hovercraft. Its mighty motor whirred; the hovercraft began to turn back towards the ocean.

"Hey! Wait!" Cried Robert, trying to stand up. Sand flew out from under the hovercraft as if from a dust storm. Robert shielded his eyes and continued to shout out in confusion. When he dared uncover his eyes again, the hovercraft was some twenty meters down the beach from him and not slowing down. Robert was alone again- but not for long.

"Robert Bonaclaw?" Asked a voice through a heavy Nethtisidan accent.

"Uh, yes?" Said Robert, turning to face a man in the uniform of a local police officer.

"My name is constable Worshune," he said, holding a device in his hand that showed his credentials. "your captain has been alerted of your arrival. He has reserved a hotel room for you to rest in until he arrives. The good people of Nethtiside have sent me here to escort you with their compliments.

Robert faced the sea again to look at his father's old sailboat. Like a beached whale, the sailboat lay lifeless on the sand. A wave dragged some sand out from under it and the top rolled over, exposing the delicate electronics inside to the seawater.

"What about the sailboat?

"It's scrap metal, boy. You can retrieve it from the junkyard at your earliest convenience. That much is entirely up to you. But right now, you'd best be getting back to your ship."

Robert nodded understanding. Looking back at sublight 217 for the last time, Robert noticed again the faded lettering of the sailboat's original name: The Clarabelle- as was Robert's mother's name.

Without a backward glance, Robert Bonaclaw walked up the beach with the constable. They walked across the dunes and up a flight of stairs to a pier. Robert followed the constable towards the coach. He could again feel the heat of that far away star, this time as it singed the skin on the back of his neck. The air was hot and thick in the heat of that star- not cold and sterile as the cockpit's man-made atmosphere had been. Everything felt surreal and out of place. His head was spinning. Everything was spinning.

Robert pondered how even now, bound by gravity to the planet under his feet he was spinning around the planet's axis, how the planet itself was flying in a long, long orbit around the same star that was burning the skin on his neck. His mind's eye took him up, up, up, faster than any rocket could have safely propelled him.

He was not on the boardwalk or on the beach or in the water or hurling through the clouds. He was once again trapped in a dark, narrow tube strapped to a solar sail. It was hard to breath, and he breathed with the knowledge that every exhalation brought him closer to the end. That thought no longer seemed so dreary, but dimly comforting. He was staring out into that infinite beyond, that dark, lifeless void. The computer was dead. Life support was dead. Perhaps even-

Two Hours Since Splashdown

Robert woke up. The room's light faded on as he returned to consciousness. He was in a room like none he had ever seen before. Stark, white walls surrounded him.  He lay in bed, draped in a white sheet. A bracelet with his name was bound around his wrist. A strange-looking machine hung over his head.

The door opened and a man walked in. It was captain Markenlay.

"Captain-" Robert started, sitting up.

"Don't move a muscle." Said Markenlay. "The doctors said you'd wake up around now."

"Where is this?"

"Contolan hospital, island 13, 71, Nethtoside.

"I was on the beach... I was walking to a coach-"

"You fainted." Said the captain. "It happens to astronauts who spend too long in zero gravity. We're in for a heavy surprise when our blood has weight again."

"Captain," Robert started. "I'm so sorry. I wish I could have performed better-" the captain silenced Robert with a stern point of his finger.

"I don't want to hear another word of that until you've seen this." The captain walked over to Robert's bed and handed him a tablet.

"What's this?" Asked Robert.

"Fan mail." Said the captain. "It's practically been seeping in by the terabyte ever since your comm went dead. The communications team has been making official statements almost nonstop for a week.

Robert swiped through a long collection of concerned letters, question and answer forums, and conspiracy theory boards. His fingers stopped scrolling at a cartoon of a child in an American astronaut's uniform with his feet planted on a cigar-shaped vessel. He clutched two ropes fastened to either end of a diamond shaped sail. His eyes were bold and his face looked fierce. It took Robert a long moment to recognize anything of himself in the caricature.

"This gift was sent to the Vole for you shortly after your sailboat was detected over Nethtiside's atmosphere.” Markenlay added, handing Robert a large package. “Its addressed from a Triblo and Carloo Wirlent. The message that came with it is somewhere in all that fan mail.”

Robert opened the box to find a thick bundle of a golden foil-looking material, a brand-new solar sail. Robert searched for ‘Wirlent’ on the tablet and found the message.

“To the little sailor from earth”, read its heading.

“The little sailor from earth?” asked Robert, appalled.

"The name Robert Bonaclaw is too hard to pronounce but they are telling the story of ‘the little sailor from earth’ on nine different planets.” Markenlay explained.

“But I lost the race, why do they care?”

“Lost!” cried Markenlay. “Robert you did more than just lose, you survived! Our stock is up thanks to your story. It seems everyone wants to buy metal from the companied that hired the little sailor from earth.” said Markenlay.

Robert scratched his chin in thought. “The beard fits you by the way.” said the captain. The beard? Robert looked his reflection over in the screen on the tablet. A thin, black shadow had indeed appeared the bottom of his face.

"Wait,” said Robert, alarmed. "Where is the vole?"

“Right where it's supposed to be.” said the captain.

“It's still in orbit?” asked Robert. "So, the Vole has stayed past its shore leave?"

"Shore leave?" Said Markenlay, appalled. "I cancelled that as soon as I heard about your accident. Until we got word that you had been found, the whole crew was at their battle stations. We deployed the landers, and put scanners in orbit around ten of the twelve moons. No Robert. When a sailor goes overboard it's all hands-on deck to get him back as they say.” Robert smiled. He had not seriously considered that operations aboard the Vole had stopped just to seek him out. It had been nothing but a vain hope out there in the great nothing. And yet it had been the truth.

Markenlay continued, “Your roommate Zerriss reminded me about the venion reactor I lent you to power your thrusters. He did some reading and had the bright idea of scanning the sky for Venic radiation to find you.” Markenlay smirked. "I'm probably going to have to promote him to midshipman for thinking of that.” he added. “But no Robert, we weren’t going to just leave you missing out there.”

“When did they know I had gotten lost?” asked Robert.

They knew something was wrong when your comm went dead. Boosk set out an announcement to each of the racers asking if they had seen you. No one reported anything for a few hours. Your friend Quicknith Tillwave was the one who finally sent in the call. He reported seeing a vessel flying in low orbit just below him, about two hours prior.  He told them that he had thought you had pitched up to give him room to descend into your position. He got disqualified from the contest for neglectfully endangering another racer, in case you're wondering. He said that it did not occur to him until after the report that his thruster could have blown you off course. But I’m not one to believe him Negligence or not, it was a serious error.”

“Hmmm, I really ought to punch that guy.” said Robert.

“You’re too late.” said Markenlay. “Moakin beat you to it.”

“Moakin hit him?”

After Tillwave splashed down and came in, Admiral Pentil interrogated the poor kid to try to drag any detail he may have neglected to give about your accident. I had left Moakin down here to send us any news he could get. When the admiral was satisfied, Moakin cornered the boy and, shall we say, expressed his feelings to Quicknith’s face. I’m sure the pump knot will wear off in a day or two.

“Is Moakin in any trouble?”

“Oh, I bailed him out quickly. There’s a little money set aside in our budget to cover the little incidents that happen when sailors go on ground, you know. Anyway, that’s the only reason he’s not here now. I ordered him to return to the Vole and stayed down here myself. I shudder to think what someone like Drunhoff would have done to Tillwave if he had been in Moakin’s place.”

Robert glanced at the clock in the tablet’s screen.

“How long?” he asked. The captain nodded understanding.

“You were in space for something like nine days and twelve hours.” he said. “But, thanks to time dilation, you blasted off thirteen days and eighteen hours ago.”

“When can I leave?” asked Robert.

“When the doctors have finished poking and prodding.” said Markenlay.

One Day Since Splashdown

The hospital staff checked Robert for any effects of the radiation he had been exposed to when he spacewalked in the light of the sun without a planetary atmosphere to protect him. But they found nothing of concern.

Robert Bonaclaw and his captain got their tickets and customs passes. Then off they went to the space elevator on island. The elevator shot into the sky, powered by a great pneumatic tube and two powerful magnetic coils on either end of the shaft. The rode was smooth and gentle, not like the rocket launch Robert had experienced earlier. He could hardly feel his weight dropping as they rose through the sky.

Markenlay held another feast for the returned crewman. The crewmen pestered Robert tirelessly about “the little sailor from earth”. When the meal was finished and most had gone to bed, Captain Markenlay told Robert to report to his before dinner the next day.

Two Days Since Splashdown

“The company higherups are asking me for a detailed presentation on your incident.” said Markenlay. “I thought I would take the opportunity to hear the whole story, from the beginning to end, from the source.”

“What do you want to know?” asked Robert.

“Whatever you can tell me.” said the captain. It was not an easy job, but Markenlay managed to drag the whole story from his apprentice- not sparing too many details. Robert described blacking out after blast off and waking up to see the beautiful curvature of the planet- something he did not appreciate at the time.

Robert told all about the decisions he made as he started his race- the slingshots from moon to moon. He told about how he spent his time, watching the news reports of the very competition he was participating in. He explained the accident: what he saw and remembered. He explained how he bypassed the computer to turn on his air scrubber. He told how he destroyed his sail to make a tether and a periscope, and how he moved the thruster about the ship to turn the sailboat around.

“I thought I was dead because- well, because he would have done better than I was doing." Said Robert. Markenlay followed his apprentice's gaze to the opposite wall, specifically to one portrait in particular.

"The commodore?" Asked Markenlay.

"Yeah, but then, after I'd gotten the sailboat to turn, I knew I was going to be ok. I knew I would make it back, even if I couldn't fly as well as my dad." Markenlay stroked his chin as if something itched badly there. "I realized I couldn't be my father- because he would never have landed himself into that problem. But that was ok, because I had to be myself to get out of there. I couldn't survive pretending to be him." Markenlay took a deep breath and said,

"Your father was a great man Robert, but he wasn't everything you've been told." This was not what Robert expected his captain to say. “That's the thing with martyrs,” Markenlay’s eyes turned sullenly onto the still countenance of the commodore’s portrait as he continued “in death they become something greater than they ever were in life. I became a little acquainted with your father while I served in the navy. Not much, but a little. He was a great tactician with incredible foresight, but he was not the man I would have wanted to follow in an emergency."

Robert fell silent. "The universe will always need people like your father, Robert,” said the captain, “people who can fix problems before they occur. Those people who can set the system up right, and let the details work themselves out when the plan is executed. I think they serve the rest of us well, and protect us all in the day to day things. But when the hard times come; they are not always the people you want steering the ship. There are other kinds of sailors. There’s a one that’s a little trickier, and far more dangerous. I know plenty of the type- if left to their own devices on a planet's surface they would wreak havoc. They are the explorers and the colonists the people who can't stay in the same old place for their own good. I am one of those sailors, as is Drunhoff.” The captain leaned forward as if to tell Robert a secret. “But the best kind of sailor has to master both worlds.” said Markenlay. “The best sailors make the most intricate, and detailed plans, but are always ready to scrap the plan and find another way forward; even- no, especially if the given circumstances could never have been anticipated.”

Midshipman Burgstull walked in.

"Captain”, he said carrying a tablet. Communications wants to report an alert. A message addressed to you was sent here via the ship's portal telemetry system. The bridge's computer network only just decrypted it."

"Understood." Said Markenlay, give the tablet here." Burgstull gave the tablet to the captain. "Thank you." Said Markenlay. "And please delete the original."

"Sir," Burgstull added, "We think it’s a hack. The sender sounds like they’re trying to be funny. The letter is addressed from a Sir Em-"

"I know who it's from midshipman."

"Sir, is something –unusual going on?"

"Always midshipman."

"Sir, may I inquire-"

"You may not, midshipman."

Burgstel turned awkwardly and paced out. Markenlay perused the letter. Robert Bonaclaw stood to see himself out.

"Hold up Bobby." Said Markenlay. "Do you remember our good friend Atrien?" Asked the captain.

"That boy who came on board for two months a few years ago?" Asked Robert.

"Yes him." Replied Markenlay. "Although he's not much of a boy now judging by what this letter entails."

"Whatever happened to him?" Asked Robert.

"He hid out in the wilderness for a few years. Now he's back. He and old man Emrykion are calling in another favor."

"Will they be on the Vole again Sir?" Asked Robert. Markenlay's eyes narrowed.

"Look me in the eyes Bobby." Markenlay chided. "Let me ask you something." Markenlay was silent for a moment, taking time to carefully choose his next few words.

"There are... certain corrupt officials who have penetrated the highest tiers of the empire's government Bobby." Said Markenlay. "And should one such official come aboard this ship, and ask you what you knew of certain activities carried out aboard the Vole that some uninformed persons might consider treasonous, what would you say to them?"

Robert was stunned silent, shocked by the question. Then he heard a slight clicking noise- a noise he had heard once over a year ago when a fight broke out between a few crewmen and some colonists. That was when the Vole had visited their planet to sell some raw materials.

Robert had come down on the lander to shadow Markenlay. When the fight broke out, the captain tried to stop it first with his voice, second by trying to grab a disgruntled crewman and finally, by raising his old service pistol into the air and firing a warning shot. The ruckus subsided and the Vole soon departed, content to sell its wares someplace else. Robert had seen his captain raise the gun, and he had heard the faint sound of its loading switch clicking: the same sound he had just heard now.  But this time, hidden under the desk the gun was surely pointed at him.

"Your ship is your jurisdiction captain." Said Robert, slowly and carefully. "I would defer to your judgement." Robert watched his captain closely. The strange, wild look in Markenlay's eyes subsided. His face took on a look of sad contemplation- perhaps even one of shame.

"You're a good lad Bobby." Said Markenlay. "And a brave one. You're just the kind of sailor they're going to need."

"Who's they captain?" Asked Robert.

"Right now, it’s the Vole." Said Markenlay, the captain kept droning on. "But if this letter means anything, then that is all about to change. A new regime is on the rise. And sooner or later Bobby, it's going to need people just like you at the helms of the empire's ships. You don't need to build a new sailboat Bobby. Unless of course you really want to. I imagine that there are, right now, countless planet bound engineers far away designing a vessel that, in due time, will be for you.” Markenlay paused and added, “speaking of that, do you think you will build another sailboat?”

“I don’t know.” said Robert. “I have that sail in the hanger, but only the sail. If I race again, I would want to start fresh with a smaller, remotely operated sailboat. Markenlay nodded, and Robert got the impression that he wasn’t really listening. The captain now looked straight into Robert’s eyes.

Can I trust you to keep a secret, Robert?” Robert stood amazed; it was a rare occasion that the captain called him Robert.

“Yes sir.” said Robert. Markenlay smiled.

“Very good then, you may go.” he said.

“The secret-?” Robert started.

“You are dismissed Lieutenant.” the captain repeated. Robert walked back to his quarters, pondering everything he had just heard- and whether he could or should report his own captain to the authorities.

 He had planned to go jogging on the treadmill, and he decided a good jog would help him think through whatever he had just witnessed. He opened his closet to change into exercise clothes when he noticed a case lying in the corner. He couldn’t believe himself. He had forgotten to return the EVA suit to the Vole’s quartermaster. He picked up the case and opened it, checking to make sure everything was there. Robert smiled. He had one more thing to do with the EVA suit. Robert picked up the space suit’s right glove and walked to the mess hall.

Robert found his roommate having dinner on a table by the wall. A video was playing on the table's surface. Robert marched over to Zerriss's table and struck the glove on the table like a gauntlet- an old, well known challenge. Startled, Zerrriss looked at his roommate for an explanation. Robert pushed a tablet into Zerriss's hands. Zerriss perused the article displayed on the tablet.

"The Dudnithian annual remote space vehicle challenge?" Zerriss read. "What is this?"

"I need to show you something." Said Robert. "Follow me to the hanger."

"I’m watching a tutorial for my schoolwork." Said Zerriss.

"That will still be here when we get back. Come on." Said Robert.

Zerriss followed Robert down the hall, up the stairs, through the chute, and into the hanger. They walked awkwardly across the metal floor in their magnetized boots. Step by awkward step Robert lead Zerriss past the fleet of asteroid drills, rovers, and landers to the marked off square where sub-light 217 once lay, strapped down to the floor. In the place of the Clarabelle, lay a small container.

"Look in there." Said Robert. Zerriss eyed Robert suspiciously, this was all very strange coming from him. Then, Zerriss opened the box to find a large, folded-up solar sail.

"I thought you were going to make a new sailboat with this." Said Zerriss.

"I think I have had my fill of the hobby for a while." Said Robert. " The captain's going to need a new racer to sponsor- it's good for the business you know; even if it’s controlled by remote."

Robert slipped on his goggles, and queued up the computer. A drafting program appeared in the air, Robert copied a model of the sail into a new file and handed the stylus to Zerriss to begin drafting a new sailboat.

"Oh, and make sure you never forget- distance and trajectory, that’s very important." Said Robert.

"And you're sure you're not going to use this?" Zerriss asked again. Robert smirked. He was very sure.

"Well," said Robert, smiling "If it's all the same to you, I think I'd really just like to strap myself down to the tool box, and watch."

Apples and Cats



**Apples and Cats:**

**Fundamentals of Calculus as Told by a Unicorn**

By: Henry Holben



Canto I: Prologue

They're said to go together,

That is, math and meter.

And what is logic but language applied?

And philosophy, but there, where logic thrived,

And mathematics, but the philosopher's tongue

And calculus; where math's peered out and sung,

Of the everchanging universe

By rules unnerving for better or worse.

Thus, it behooves me

To rhyme out a story

Of the deeper things of mathematics said

To be of every poet's dread.

So hither you get, mathematical muse

And tell me a tale, of any you choose.

Only this in the tale I ask,

That I by your narration may bask

In the wisdom of your tale.

Thus, may calculus prevail

Above the narrative and so,

I'll try my best, and here I go.

Canto II: Fears, Dreads, and Calculus

Corgin's roommate had long since dropped,

But to his desk-chair Corgin plopped.

And tilted high his cup of Joe,

There found no sip of coffee though

Just to be sure, he flipped it o’er.

Not one drop left to stain the floor.

The clock read something like two or three

It noisily ticked relentlessly.

He plunged himself into the text

But knew not one page from the next.

He strained to read his crumpled notes

All transcripts of professors' dotes.

And sprawled illegibly 'cross each page,

Nonsensical primes to fuel his rage.

His eyelids fluttered for lack of rest

For 'twas the night before the test

That would decide for or oppose

His hopes and dreams or none of those.

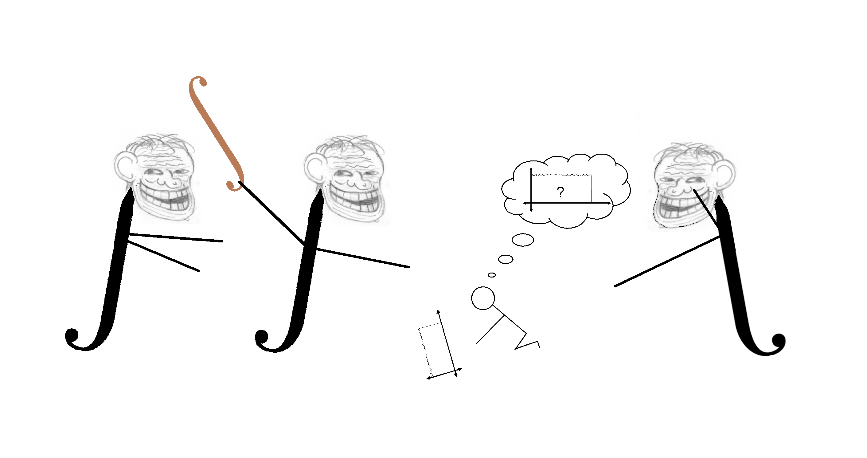
He slammed the book and then despaired

"Oh woe is me, I'm so impaired!

I know not how one can derive

Nor integrate, nor in math thrive.

So I'll fail the Big and Scary Test®,

Become the student all detest,

And be tossed out into the slum

We're none may cheer, and all are glum.

And there under a bridge I'll cry,

Into the streets and to the sky,

'Oh woe is this unworthy boor!

Who studied not weeks long before!'

So come fate come! Come and be done.

Come with my last glimpse of the sun!"

Won’t be so bad when comes the reap:

At least at last I'll get some sleep."

So certain he was surely doomed,

The student gasped and then he swooned.

He dreamed of wicked integrals

Who had the cordialness of trolls.

They said, "Tell us of the volume store

Betwixt the waves and ocean floor.'

He scrawled his guess into the sand

For sure he didn't understand.

A wave rolled up across the place

And would his guesswork there erase.

They said to him, 'you make us sick!'

And beat him with a gnarly stick.

They jeered and sneered and called it funny

Then left him destitute of money.

Suddenly a monstrous breed

Half barnyard donkey, half magic steed

Aroused him with a pompous cough

And told him that they'd be best be off

To keep the fragile world intact,

Or quoting him somewhat exact,

"They call me by the worthy name, Mackmillion Escargot

Hypotenuse the thirty-first, now grab your things and let us go,

And wage a war, a worthy feud

Against a monstrous whiskered brood

Of evil cats who bare their claws

To snare this planet in their paws.

Starting with a deadly strike

On human and corn-kinds alike.

Fiendish felines, who given their way

Would level both our worlds today.

So let's do business you and I

Before the end of us is nigh.

And though you may be dim of mind,

With help from me some wit you'll find

For you have hands and I, alas

Must bow to earth when eating grass.

Thus, together we can be the team

From whom foul kitties run and scream."

The beast that Corgin there could spy

Would all appearances imply

Was mule enough, with magic grace

Besides the left of the equine’s face

Which, shockingly was all composed

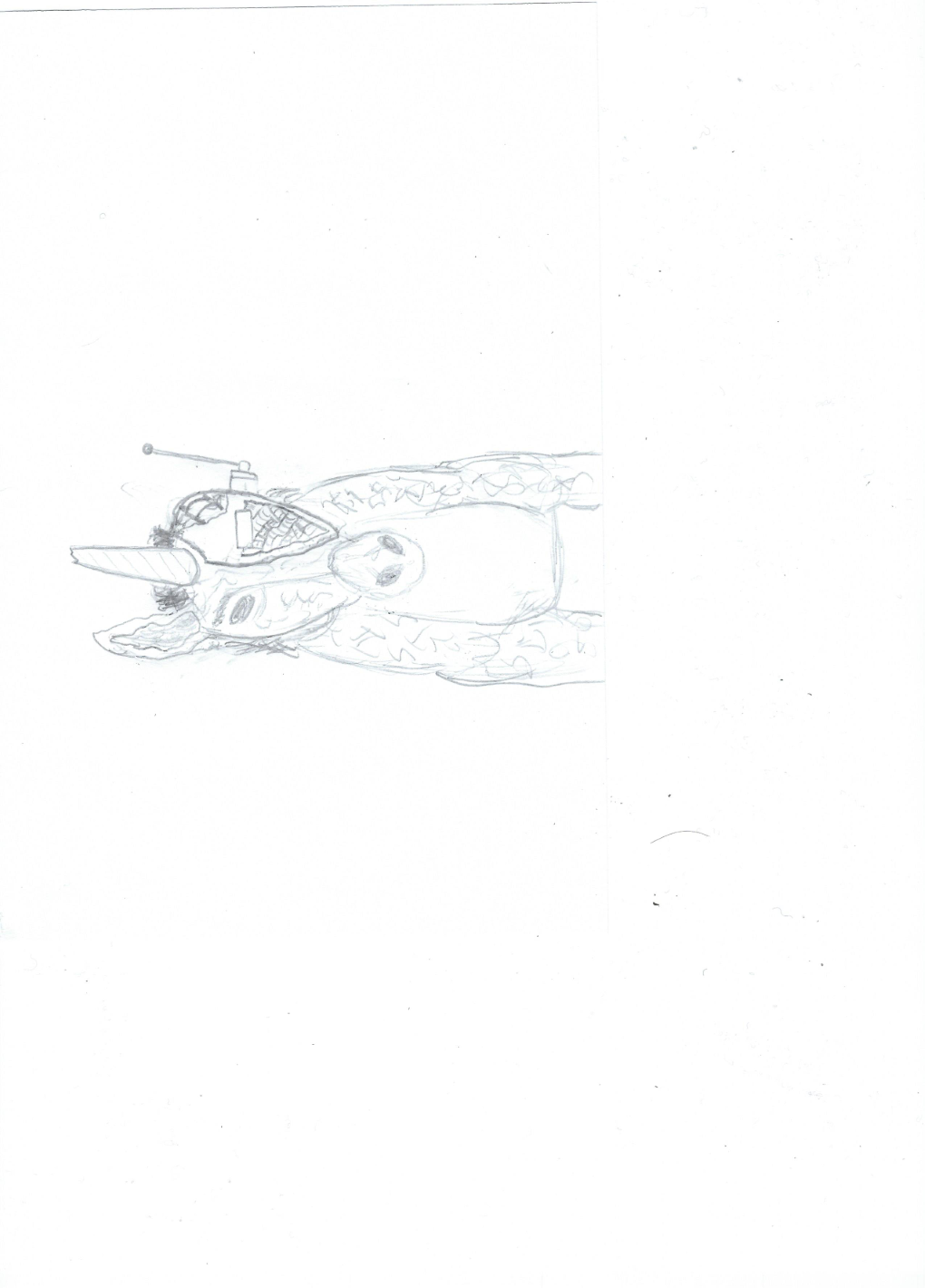
Of twisted iron there imposed.

And from his scalp, a slender horn

Made him out, a unicorn.

Corgin was surprised of course,

And dared exclaim before the horse,

"A unicorn?!" he cried in shock

"And what is more- one that can talk!"

The fiendish mule rolled up his eyes

"Mathemagical cyborg and surprise,

Possessor of super-hero tricks,

And a Ph.D. in astrophysics.

Who yes indeed can also speak.

And we'll still be here all the week,

If I’m to narrate exposition.

About your sagging education.

For now, I'll say I have a past.

Now all that’s said, it's time at last!"

So said the magic cyborg beast

But swayed the student none the least.

"I cannot go, dunce that I am,

I have a big, scary exam!"

The unicorn screeched a frustrated "neigh!

Your my intern now; you'll do as I say!".

The unicorn jolted up into the air,

Corgin flinched at his angry flare

And one mighty hoof was landed upon-

The reluctant student, then all was gone.

Canto III: Getting Up to Speed

Whisked across both time and space,

Corgin smacked into a spectral place,

A forest dense with apple trees,

A misty fog, and gentle breeze

"What happened?" would the student say

Hypotenuse replied, "We've teleported away-

Traded one spatial reference frame

For a place which I would gladly name

But there's no point, the human race

Cannot pronounce the name of this place.

To the steed the name sounds mighty grand

But for you the nearest is 'Unicorn Land'."

Corgin panicked as he thought he ought

And raised his protests to the plot.

"Take me back! My test’s in mere hours!".

Replied the beast, "Relax, amongst my many powers,

My time travelling skills will see you back with time to spare.

Now be my intern, help me smite the evil lair.”

Corgin asked, “You’d have me work for free?

I won’t be of help- you’ve abducted me!”

So was Corgin’s refusing cry.

But the unicorn answered with a piercing eye.

"Come with me now you clueless lad

Or else your test grades will be bad.

And let's not forget, without my permission,

You cannot go back for your examination."

Seeing plainly that he was outwitted,

Corgin excepted his fate, and finally submitted.

The eye on the unicorn’s robot side

Glowed as if embers were burning inside

And projected a hologram into the air

As if a red parchment was floating there.

 “Not long ago we discovered

A copy of their agenda recovered,

First to bankrupt the unicorns

Who pose a danger by our horns.

Second, they intend to spark a third world war.

Through connections they’ve found to humans of power.

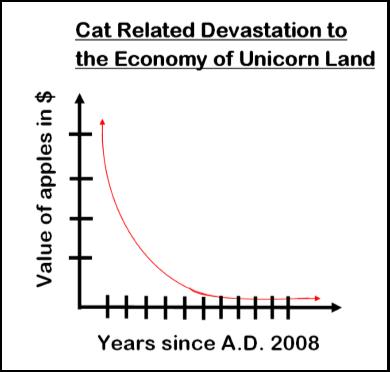
And third by delivering propaganda to

Domesticated cats: thus start a coup.

For the divine order of the universe

We unicorns love is quite adverse

To the chaos embraced by this organization

Of evil cats who plot to take each every nation.

But Cornelia, queen of every corn-kind

Has tasked me such- their leaders to find.

Before they’ve succeeded phase one

And seen it the unicorns’ money is done.

Now in Unicorn Land we use apples for cash

Thus no unicorn can horde forever his stash.

But our enemies plan to bankrupt our nation

By growing more trees: hence hyperinflation

With low-quality apples they exchange at full price

Before they play with their yarn and gorge on their mice."

Dr. Hypotenuse bid Corgin look

At a chart affixed to a tree by a hook

That would the price of apples relate

Against the passage of time since two-thousand eight.

"Now you see intern, as time progresses

Our apples become more and more worthless,

Or better said, as a limit; as the years approach eternity

Approach zero dollars, the price of our currency.

Thus is the downward sloped persuasion

Of our exponentially decaying function.

But I am a time traveler, so I have invested

Backwards with my fruit at top price when harvested.

You see, in two-thousand seven an arsonist would conspire

To set every last of our apple trees on fire.

But I've transplanted my trees to grow far away.

And I've made millions for investing that way,

Or if said as a limit just to sound smart,

That is the limit of our time-price chart.

As the years from the right approach two-thousand seven

The price per every apple rockets toward heaven.

But now each of my apples aren't worth very much.

**Intern**

And we're going to force out the culprits as such."

The tip of the unicorn’s horn became lit

And blue paper appeared in the air before it.

The paper folded and tore on the tip of his horn

Into a crisp shape as said the unicorn,

“A cone by the function y equals one and sixty-one hundredths

Minus the absolute value of three point two-two in the breadths,

From y equals zero to y equals one point six one

Spun about the y axis and with that I am done.”

The thing in the air fell on the ground.

Corgin picked it up timidly and spun it around.

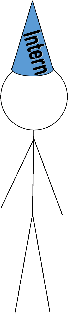
On its surface, the word, “Intern” there was inscribed

And the whole unit circle was on its inside.

“Here is you’re welcome package, it’s a very fine hat

It’s a comfort to wear, and its pleasant to look at.  
Its height divided by its diameter

Equals a very special number

The golden ratio it is no less,

The measure of beauty in unicorn dress.

And as you can see it has a built-in unit circle

In case you need to quickly find such an angle.

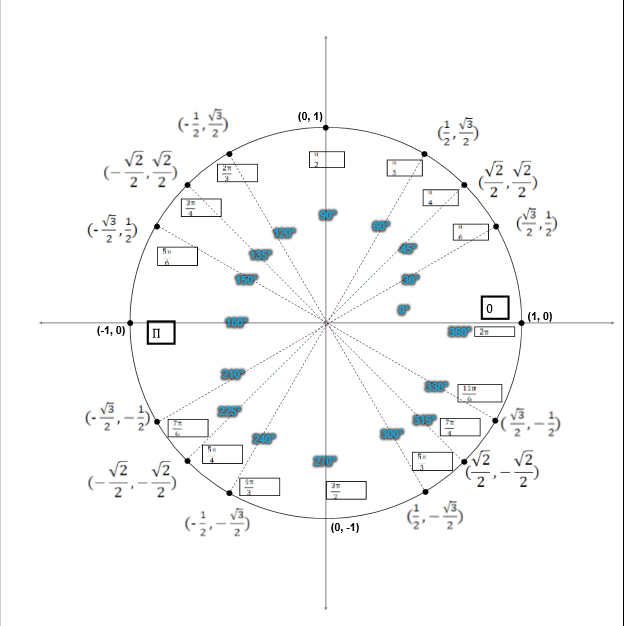
Now put that on quickly lest if you’re seen

There could be more paperwork for me from the queen.

For a unicorn knows a friend by the point o’er his head

If they see your flat scalp, they might gore you dead.”

Corgin felt rather silly putting the cone on

And again he objected to playing the mule’s pawn.

“Dr. Hypotenuse, I think you’ve made a mistake.

I’m not the sort of student to take.

I wish you good luck, so go save the day.

But I can’t help. For I’m not wired that way.”

So the student pleading on the state of his brain.

And the unicorn huffed a sigh of disdain.

“Pish posh and nonsense! Understand

There is not a single integrand

For which your plastic mind cannot adapt.

But that takes work and students are apt

To blame their short comings on faulty grey matter.

And deny themselves the chance to do better.

You say you lack the wiring, well I say your right.

For the knack will come with the struggle and fight.

But if it’s confidence that you lack

Let’s review, and take you back:

To some mathy things you ought to know;

Before you further onward go

To the mathematical study of fluctuation,

Derivation, and integration;

Or calculus as oft it's called

Of which so many are appalled

Not for the challenge of the area

But rather faulty foundations in algebra.

So spin your thinking cap around

And let the function graphs abound!

Now I’m a believer in allegory,

And I think to teach through the power of story

So let's say Timmy's mother had a son

Who knew no manners, not even one.

And she took a trip to the mall one day.

But while changing clothes, her son wondered away.

He went on adventures in that big place

And much of the merchandise would he deface.

He hit a lot of the stores although he was small,

By pitting his wits against the folks at the mall.

Now Timmy found a candy machine

Filled with balls; red, blue, and green.

Now this device was said to sort each ball

Then down the spire would it let each sphere fall.

And Timmy looked on it's cage and read

An ad relating color to price that said,

'A crimson ball is worth a nickel

It tastes of chili sauce and pickle

A cyan ball is worth two reds

Such tastes of uncooked lizard heads.

The green shall go for fifty cents

It tastes of misspent money’. Hence

Little Timmy turned out his pocket

And gave two quarters from his wallet.

The gum machine worked and thought.

But to his chagrin Timmy got,

After the machine had dwindled and dwindled

A chili-pickle ball, he had been swindled!

For Timmy had held the expectation

The machine would honor its label's function.

Rather he was scammed by price.

There was no function in the device.

For given each input of money

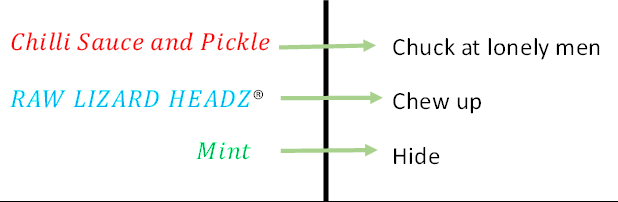
Would yield a random output of candy.

The trickery put Timmy in a fit of rage.

So he took his hammer to the cage.

And out rolled many a candy ball

All about the floor and hall.

And filled himself with the ambition

To create himself a truer function:

Every red was to be thrown

At any man who sat alone.

And for blue, what would he do

But take upon himself to chew.

As for green he thought it fitting

To hide in merchandise and clothing.

Having assigned this simple function.

Timmy began its execution.

He gathered up each ball of red

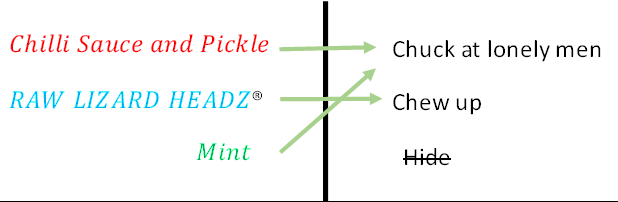
And sniped a bald man in the head.

He hunted the blue balls from the store

And chewed each one straight off the floor.

He'd gathered up each green gum ball

When another thought struck him after all.

He thought it fun to use the greens just like the reds

And chuck them all at lonely heads.

Now understand that this decision

Did not compromise the gum-ball function.

His function was no longer one to one

But unlike the machine, when Timmy had his fun,

Though, not all inputs had outputs of their own

Each input still yielded one output alone:

Each gumball was assigned to a single effect.

To call it a function was yet still correct.

With this rotten task through

Timmy’s mind planned more mischief to do.

He thought to do something with the wads of blue gum

And put them somewhere nasty with the press of his thumb.

He’d deliver the wads to the third-floor stores

And speckle all of the windows and doors.

Now Timmy observed an escalator,

And quite unlike an elevator,

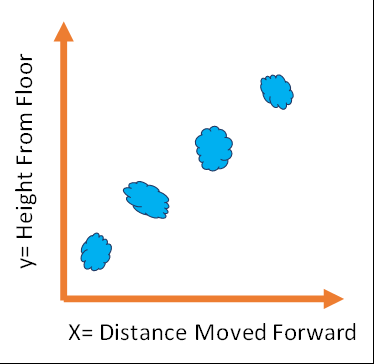
This machine carried persons both forward and up.

So Timmy imagined their positions lined up.

That would have look like a linear function

Where x shows horizontal distance from the junction.

And y meant distance up from the floor.

So Timmy set off on this mischievous chore.

He made his way and got upstairs,

His mind still on those moving stairs

Now in front of a book store

And next to the door.

Timmy found a nice spot to vandalize

But first a function he’d analyze.

So there in front of the window he’d sit

And use the gum to draw a picture of it.

He stuck his gum wads and made his graph.

A store clerk got angry, and it made Timmy laugh.

Laughing he ran, with the clerk in pursuit,

With no escape in mind or any planned route.

So when Timmy was certain he’d gotten off free

He was lost in the mall for having had to flee.

But that wouldn’t stop Timmy, who was inclined

To graph another function with the eye of his mind.

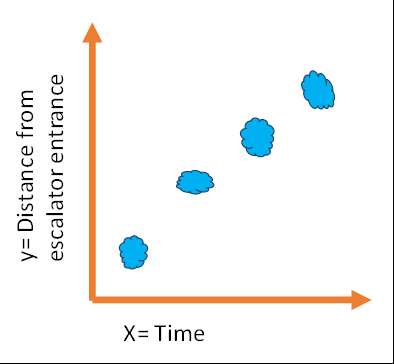
He thought about the speed of riders

Who were going up the escalators.

He couldn’t visualize it. That made him glum.

Then he remembered he still had a pocket of gum.

This time he worked beneath a dirty old table.

And his x axis he ascribed time as the label,

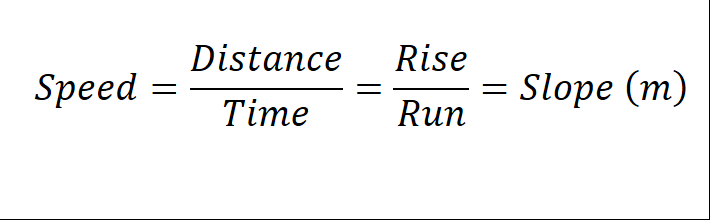
Where y equaled distance from the spot on the floor

Where the first rider had left only seconds before.

He thought really hard as he made the gum soft

That the riders weren’t speeding up as it took them aloft.

Intuition would tell him under the table’s grime,

That speed would equal the distance divided by time.

And Timmy having seen his previous graph done

Knew the slope of a line equals rise over run.

So Timmy sat down and pondered and discovered indeed

That the slope of this line would equal the speed.

But that was boring. Timmy wailed an angry outburst.

Because his new graph would look so much like the first,

For Timmy understood if speed wasn’t growing,

Then x and y were both evenly increasing.

Unsatisfied and bitter, that spoiled, shrewd child

Had a brilliant idea for a graph. He smiled.

He could look at the speed all by itself.

He took what gum he still had and found a store shelf

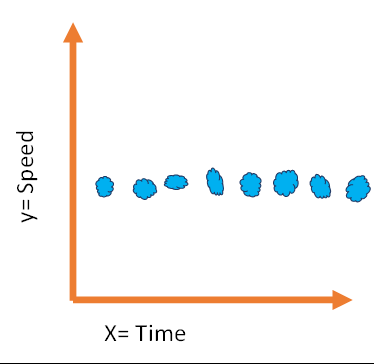
And there to draw this new picture he’d pit

The speed against time with his gum and his spit.

He knew from before, the speed was staying still

So y being speed had not a trough or a hill.

And x being time increased without stopping.

The boy showed his masterpiece to customers shopping.

To the folks in the store it looked like nothing fine

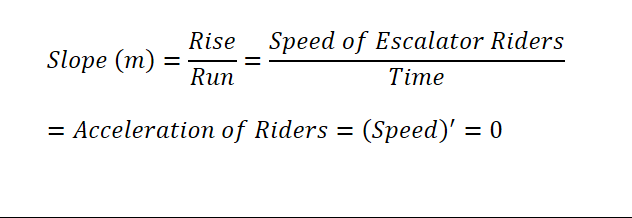
Because the immature genius had graphed a flat line.

The clerks in the mall would call his work primitive.

But in calculus we call it ‘taking the derivative.’

His disappearance his mother had since been aware

She caught up with her brat, and I think we’ll leave him there.

Now I know that all this is still hard to grapple with

It’d be worse put to rhyme by some wannabe wordsmith.

But with practice and effort and a steady, constant pace

You’ll master your studies, whatever the case.”

After a moment of silence, Corgin made his reply.

“I’ve got nothing to lose. I’ll give it a try.

So whenever you drop me off and set me loose

I might not fail so badly, Dr. Hypotenuse.”

“Good.” Replied the unicorn. “Only you shall try right now.

And learn by the doing: I will show you how.

Now follow along, it’s a very short walk

Until time to do battle with the math of our talk.

And” said the mule.” Before they made their attack.

"Since my name's fairly long, just call me doctor Mack."

Canto IV: Overcoming Your Limits

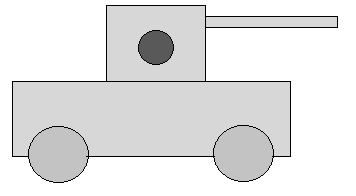
Upon an iron track in the wood

A mighty armored rail cart stood.

The doctor said they'd take this ride.

For the cart had room enough inside.

Then his enemies would be undone

For this train's roof had mighty gun.

Then just before Corgin something fell from a tree

Then pounced up to attack him violently.

Then Corgin saw one bilateral symmetric horn

And so knew he’d met another unicorn.

“Hypotenuse, what are you doing in this orchard?

Or do you just not care how our woods are bordered?”

So asked this magic steed in disdain.

Hypotenuse sighed. "Philip le'Huffer we meet again.

You haven’t a case here, go back where you dwell,

Blacken more paper, get back to your inkwell.

I'm warranted to trespass by the queen's will

I can go where I must and I'm licensed to kill.

And I don’t yet have a quarrel with you

So if you’ll excuse us, we have business to do.”

Phillip le’Huffer wasn’t pleased.

He whiffed some fresh hay and said after he sneezed:

"Don't leave so soon, you ignorant mule

For I challenge you to a unicorn duel!"

Hypotenuse froze then he turned and said smugly

"Intern, stand back, this is about to get ugly. "

He watched the unicorns begin to prance

And what at first seemed like boxing turned into a dance.

Circling each other, the two duelists paced

And le'Huffer attacked with a poem in haste.

"Again the clown wants to butter my toast

Which ignorant men put to the roast

And tore out their buttons, each every one

Their rhinos prance about and run

Though found beneath a single horn, their flesh and blood

We, the subjugators denied their unicorn-hood.

The cake is baking under the mushrooms

Now I must go out where the weed blooms

And hang the mulch on a clothesline:

This feathery brick of mine.

Listen thou mule to this song of death

Betwixt the lines of tongue and breath:

And you will see, if you've any wit

The genius of what this steed has writ."

Dr. Mack screeched in violent rage

Then counterattacked- his poem to wage.

"You hear about from time to time,

They who eat nothing but grime.

Those pitiable folks, gluttonous and drunk

Their bodies forget how to tell nutrient from junk.

But I pity you more, you senseless surrealist,

I've suggestions for you- they're too long to list.

Like a glutton you've only feasted upon

Sensitivities from which no sense can be drawn.

But if I show you some math, in fear you'll vamoose

And stay ignorant of thoughts you could put to good use.

So if you really think yourself wise

Then turn your ears and feast your eyes

On the fundamental theorem of calc part one:

Give me an interval on a continuous function,

Say, if f of x equals the definite integral from a to x,

Let this sink in- your famished brain to perplex,

Plug into that function some function of t

Times some time function times what we call dt.

Then you can know like the back of your hand

That f prime equals the function beside the integrand.”

Doctor Mack seemed pleased with his speech

le’Huffer looked at Corgin, planning to beseech.

“What say you intern, which here’s the better corn?

So asked Doctor Mack’s rival unicorn.

“Best two of three?” Corgin suggested.

The choice in referee his teacher protested.

“What makes my intern an expert who's credit should pass?

You should see his grades in his humanities class.”

“Forfeit if you must, if you think your odds bad

For I have no fear to duel by this lad.

Now sing to me muse, about how I feel-

When the hay's cut and dry and my inmost fluids congeal.

Oh what a misalignment of humors is this to stir such a mayhem!

That my bowels convulse with a spewing of phlegm!

And my eyes clench together as my whole body quivers

And a new sort of rain falls, where e're it delivers.

Is not my complexity a thing for enthrallment?

Oh what an enigma is my wondrous temperament!

Now I'll go and clear my snout

Expel my inward troubles out

And when you see my snot rocket fly

You'll know what a perplexing thing am I!"

Le’ Huffer ended his poem by kicking the dust.

Doctor Hypotenuse proceeded to express his disgust.

"Are you sick or just mad, you humor-riddled hack?

Whatever the case please kindly stay back.

You romantic types- who only think with your hearts

Try wrapping your arteries on integration by parts.

Listen closely and I will explain

What you will no doubt call a thing of disdain.

If you have an integral of two functions, u and dv

And want to simplify it- it's easy you see

Write u times v all minus v d u

Simplify that… it's easier… Its true!

I’ve sung before, now I sing again

Of the beauty of math, the mystery therein.

That theorems discovered by rational on a page

Reappear in the sciences of a better equipped age.

And what is it that shocks me more

Math's wonderful wholeness, its systematic order.

You call yourself a poet, cut off from any technical trade

And there is your blindness- there you have strayed.

For in astrophysics it’s my job and my privilege

To ponder the math of the stars image by image.”

Doctor Mack pranced faster, increasing his stride.

Phillip le’Huffer looked to Corgin and then replied,

“Listen here, Mack's intern

Here's something you must learn

The timepiece melts with the giraffe's last stripe

What you see here is surely no pipe.

Your science and maths make a decrepit old thing

But the arts and the artisans are lively and sing.

I've learned the wisdom in empty words

And seen the folly of the birds

Who said 'Let's stretch our wings fair

Dive and flap and fly on the air.-”

Dr. Hypotenuse interrupted his opponent,

Attempting to skip to the end game’s moment.

"You my hapless friend have got it all wrong

Why can't art and science join to sing the same song?

You say science is uncaring- and there you are right

So why not make music- the laboratory put to light?"

The duel was well past over for whatever it was worth

Now Phillip le’Huffer put his objection up forth.

"So what is this that you propose?

Move your books away from prose

And write poems about math like that?

Who in his right mind sees any sense in that?!"

The two unicorns starred each other down

Then awkwardly nibbled at the grass on the ground

"I've decided a victor!" the intern shouted.

"No one cares now." Hypotenuse spouted.

Phillip le'Huffer flashed out of sight,

The mule and his intern made their way to the fight.

"There's still one thing here that I find scary,

It’s, that I thought unicorns were imaginary."

Said the student on the ride.

Bitterly, the Ph.D. replied,

"Imaginary! That word is meant to vex

Us unicorns who prefer the term 'complex'.

Now tell me intern, if you're so smart,

The instantaneous speed of this cart

When we hit the trough of the valley

List off your points, and I will keep tally.

And figure it out before we hit the first hill

While the track's slope is zero still."

Corgin pondered and timed out the distance

Passed in sixteen seconds using land marks for instance,

A rock, a tree, and a bush that they passed

And counted his pulses to find the time lapsed.

He closely watched as they travelled forward

An odometer visible on the transport’s dashboard.

And used that length as they travelled on strait.

"I say nine meters per second's our instantaneous rate.

Just take the change of distance and divide

By the amount of time that passed on our ride.

"Wrong!" said the doctor "You really ought to know

That instantaneous means the change in time nears zero."

Now this confused Corgin, who said "How can that be?

For if the change of time nears zero than speed must near infinity!"

"Yes." said the mule "And there's where limits come to play

Consider this, suppose one day

A certain man hops to his wall

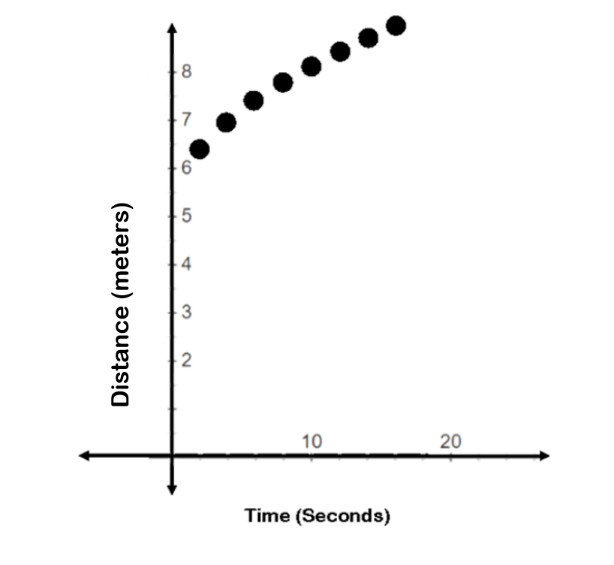
But never reaches it at all.

First he takes a skillful bound

Now the middle of his floor he's found.

He jumps a jump that’s half the first

Now three quarters of the way's transversed.

I hope you see the pattern now,

He's seven eighths there anyhow.

And step by step, half-by quarter,

The distance remaining gets shorter and shorter.

But never is the journey finished

Just getting evermore diminished.

The man never arrived, he still hasn't yet.

And that was where Zeno placed his bet.

The sky's not the limit, the limit is the wall

That made philosophers ask if things move at all.

I'll give you a hint, our cart doesn't move

At a constant rate, and that I can prove.

While you were helplessly lost with your unorganized mind,

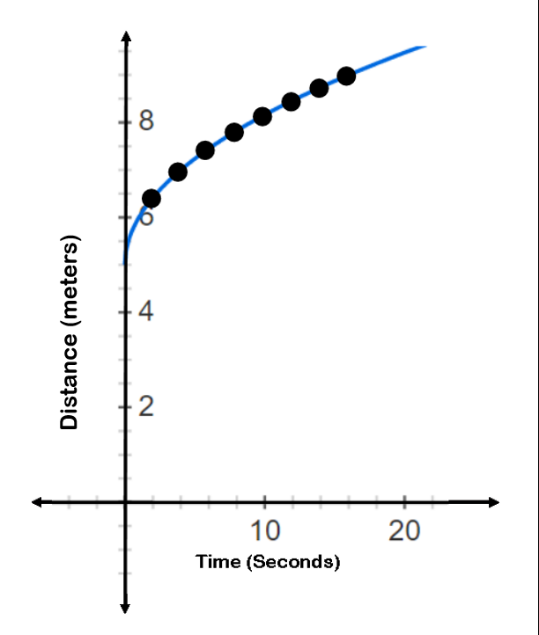
I also timed out every landmark I could find.

Except many times more with the beats of my heart.

And I poked little holes in the side of the cart.

And if you'll look down you'll see that its dotted

With holes where our speed and time's been plotted

Starting at zero where we both started to count

And ending at sixteen where you said your amount.

Try to rationalize these points of mine,

And lo and behold, 'tis no straight line."

Corgin traced it and indeed,

It fit a curve and said the steed,

"Now intern, look and let's observe

This ought to seem a familiar curve,

As x falls from right to left by my trained eye

I'd say square root of x plus five equals y.

Now it’s true, average speed comes with the quotient

Of total change of distance over the time spent.

But instantaneous speed’s a whole ‘nother thought-

The idea of where our speed is, its sought.

We contemplate the speed in the moment

Where time does not move by even a fragment

So, to find that instantaneous speed

Let’s look in closely, we only need

To approach the point on which we end,

And we’ll observe the function’s trend.

So you see its quite an easy limit

From either direction we approach it-

The speed as the time in seconds nears sixteen

Nears the square root of twenty-one-it is seen.

Canto V: Derived from Physics

The cart began to climb the hill.

"Now intern it won't be long until,

We are in range

Of castles strange

And populated by our foes

I plan to blast our gun on those.

There is a catch, we can't control

Our barrel's angle, so as we roll

The mountain's slope will decide

When we must fire on where they abide.

The initial trajectory of every last shot

Will start with the graph of the tangent line at each spot.”

Said Dr. Hypotenuse as their speed continued to drop

As they travel on upward to the hilltop.

“The tangent line?” asked the intern

As the cart on the track took a sharp turn.

The unicorn saw his intern hadn’t a clue.

He told a story again: “Here’s what we’ll do-

Lets say Timmy had a friend named crazy-head Joe

Who one morn came to Timmy’s house in the snow,

And said, “Hey Tim, let’s go up the big hill

In the imminent blizzard and arctic chill,

An igloo we’ll build, a snowman we’ll shape

Now I’ve got lumber, boots, and a roll of tape

And I intend to fashion some skis

But I need your help, so if you please

We’ll strap my boots to boards unbent

And you my friend shall film my descent.’

Timmy agreed, that precocious youth

Who, though older since last time was still quite uncouth.

Timmy bundled up nicely and headed outdoors,

Brought his phone up the hill, carrying two-by-fours.

Joe sat on a stump and propped up his boots.

They reviewed the plan, the two in cahoots.

Then Timmy lashed the beams to crazy-head’s shoes,

Anticipating fractures and many a bruise.

Both boards could span gaps almost two meters long

And Joe said thinking his idea was quite strong,

‘Good work my man, now take your station bellow,

Then take out your phone and film me in slow-mo.”

Timmy walked down the hill, holding back a fierce laugh.

Then he froze, pondering the slope of the graph.

He thought, ‘if I draw a function like I did years ago

I’d have curvy-shaped thing for this mountain of snow.

And when Joe departs, his skis will look like a line

And tilt on the curve- then he’ll break his spine.

And before he falls to destroy every joint,

His line will touch the curve at only one point.’

Since he goes with the skis, this tangent line’s slope

Will equal the slope of the hill at that point, I should hope.

‘Ready or not Tim!” said crazy-head Joe

Before he plummeted face-first into the chilly, thin snow.

Timmy roared in laughter at Joe’s mighty tumble.

He heard Joe stirring, with many a grumble.

Joe crawled through the snow holding his head

And after groaning a bit, ‘Did you get that?’ he said.

Timmy squatted down low, and they watched the video.

And Timmy noted the way the skis tipped on the snow,

Touching at one point, so now you need no longer mope

You know tangent line to a function will share that thing’s slope.

For us this means the trajectory of each missile,

Will have the same tangent slope, initial

As the tangent line to the slope of our track,

When comes the time- such goes our attack.

So our needs demand a math equation

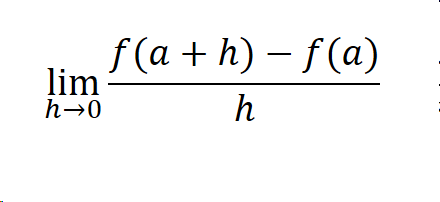
To make our changing slope a function.

A formula defines the derivative-

The slope of the graph definitive.

It’s expressed as a limit as h is approaching

Zero of the quotient dividing

F of the sum of a plus h minus f of a, this difference

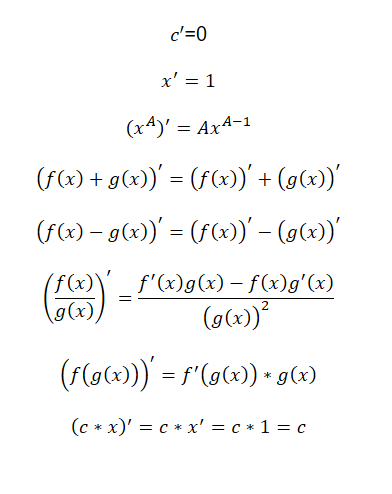
By a if to you that all makes sense,

Then know hence forth for as long as you thrive

For the slope of the tangent you need only derive.

But you and I know that’s a lot of tedious work

If we’re to speedily destroy there where our foes lurk

If we're to snatch the castles from their paws,

We'd best review derivative laws.

The derivative of any constant c

Is zero, that one's easy.

The derivative of x alone

Equals one now that's shown.

If a variable's raised to something, say,

A constant or a variable such as a power of A

Then find A times x raised to A minus one

And simplify then the power rule's done.

If taking the derivative of two functions added

Or likewise the prime of a function and another subtracted

Simply prime both those components.

Now when dealing with your quotients,

Like the derivative of the ratio of a function pair

Its f prime times g minus f times g prime all over g square.

The chain rule goes, a function of a function of x all derived

Is the first function primed of the second then multiplied by the second function primed.

Now the prime of a constant and x multiplied

Equals the constant unchanged times x primed.

Now to siege the forts where these evil cats thrive

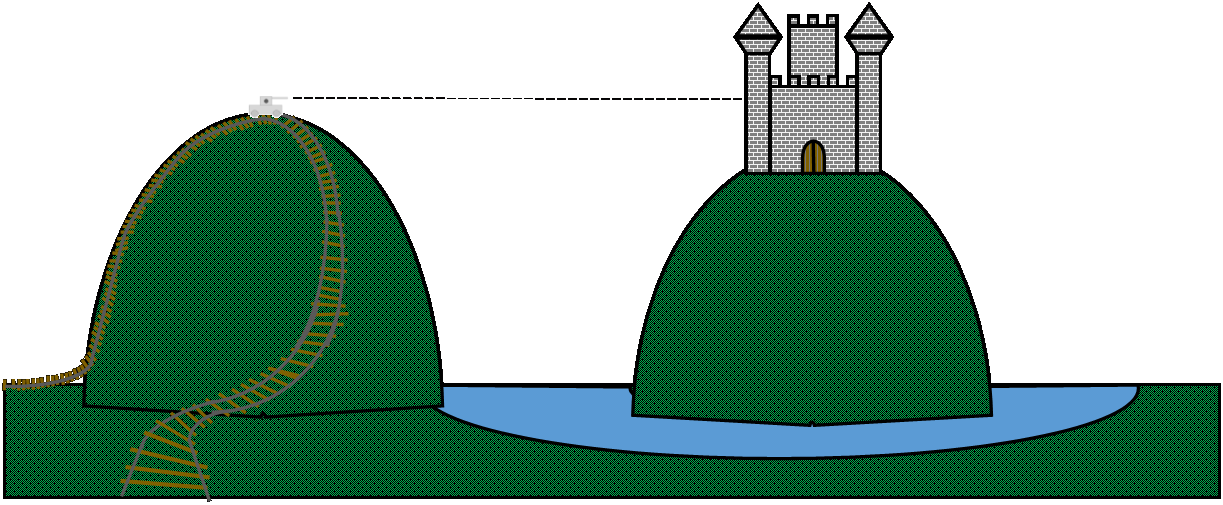
Consider the track's equation and simply derive.

For the first hill I happen to know

We'll have a clear shot, when the slope is zero,

That is to say, pull the trigger back.

When we hit the peak of the hill, because this track

Quickly veers out of sight of the fort,

So we get just one shot or else we'll abort."

Corgin did and obeyed and fired the gun

The target collapsed and he called it good fun.

"It's just like angry birds!" He gleefully said.

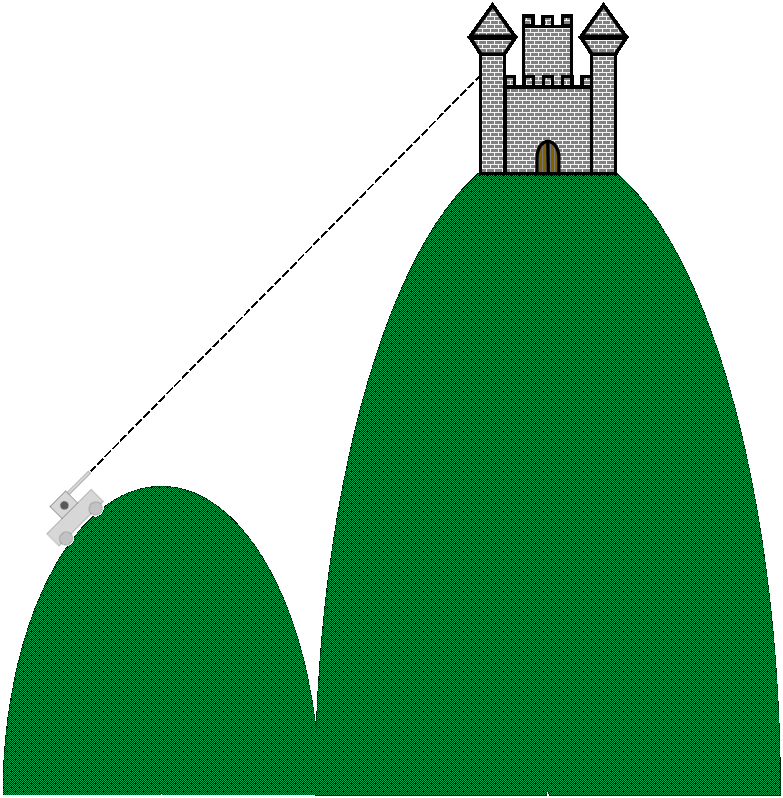
"Except we are moving when we shoot the things dead."

Said the Ph.D, "On your next shot, you shall antiderive

To find when the slope of our tangent line, in degrees is forty-five.

For the castle there towers high above

Thus by antidifferentiation we'll know place thereof

Your hat’s inside says of course

That angle in radians equals pi fourths.

Now I can tell you if you’ll listen,

Our hill can be fitted to a function

And I happen to know that it’s been seen

As two point seven sine of x between

X equals zero and x equals pi.

Figure it out before we pass by.”

Corgin pondered out if he had a thing of the kind

Whose derivative equaled the function in mind.

Using derivative laws, the function he’d expect

To be minus twenty-seven tenths times cosine of x.

He worked it out twice and was sure he’d rightly reckoned.

And he watched the clock closely and waited for the second

When he’d pull back the trigger and let lose the missile

To wreck the next castle with those explosive projectiles.

And when the time came he fired the gun

But the castle remained- it wasn’t undone.

Corgin asked why the target survived the attack

His teacher said “There’s a wide stretch on this track

We’d call a continuous interval one sum

Interval between the start and outcome.

The reason I bring up continuity is that you must know-

That when you fired the gun some moments ago

You missed that last castle of unicorn dread

And the projectile landed ways ahead.

It blasted a break in a bridge atop

The open air of a gorge- so we’ll soon drop.

Now the track’s function has a discontinuity-

A place with a break disrupting the graph’s unity.

You see your technique was correct-

But if you had checked

You might have remembered before the blast

Simple constants added to the function at last

When derived equal zero so for doing the reverse.

So bear in mind when you rehearse

That integration constants show up here

Those constants derived simply disappear.

An integration constant of zero you can’t just assume

When you are plotting an evil cat’s doom.

It is just as well- we’ll find a way

To put that fort to ruin today.

Now the floor is level and thus I know:

The slope of our track is zero, and so

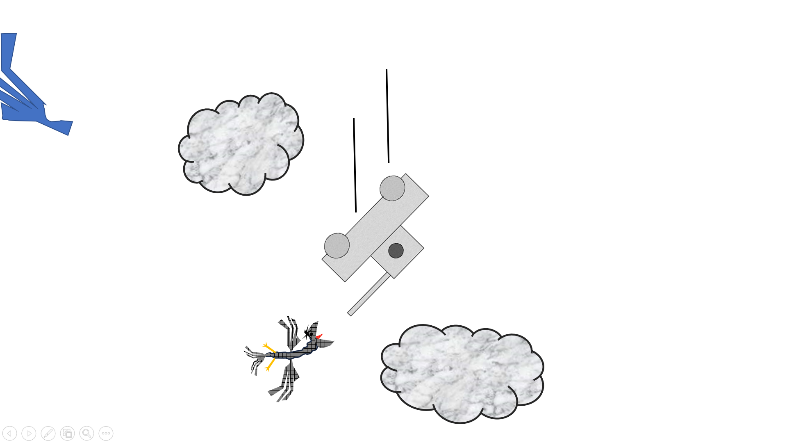
We’ve come upon our fractured bridge

And now we’ll plummet into the ridge.”

The armored cart fell towards a forest, remote.

The experience of free-fall put Corgin afloat

Between ceiling and floor of the cabin inside.

He screamed at the tilting, watching wide-eyed

“Dr. Mac, we are falling!” the mule heard him yell.

“Why yes- yes we are.” He replied as they fell.

“And nine point eight meters per second square

Is our acceleration as we descend through the air.

That number has a fancy name

It is a constant of physicists’ fame.

And it’s used a good many times in physics class-

It makes the difference between your weight and your mass.

The gravitational field near earth it’s called.”

The unicorn explained to the student, appalled.

“Dr. Mac, we are falling!” Corgin said once again.

“Yes, I know.” Said the unicorn on the way down

The cart was almost fully flipped ‘round.

“And with what you just learned, see we can contrive

An equation of position- we must antiderive!

Now I’ll believe the integration constant this time around

Would equal zero if our true speed was found.

So that constant’s antiderivative when reckoned

Yields nine-point eight x meters per second.

That function tells us our velocity

At any time, x, we wish to see.

But repeating the step, we have a new function

This shall give us rather a formula for position.

Now realize if we had a constant speed

Finding position would be an easy deed.

We’d simply multiply the constant rate of our fall

By the time that had passed- and that would be all.

But gravity gives us the downward persuasion

Of the aforementioned constant- our acceleration.

The antiderivative of x times that number, nine-point eight

Is x squared times nine-point eight halves when we integrate.

That equals four-point nine x square.

And yes, I said integrate, if you care-

When we find antiderivatives such’s what we do

The integration constant, which just stumped you

Would be found now and added to our equation

To compensate for our previous position.

But pardon my short sight I didn’t bother to find

The elevation of our car when we left the track behind.

So for now a constant of ‘C’ we’ll have to use instead

But that’s enough math in a moment to cram in your head.

“Dr. Mac, we are falling!” Corgin cried out.

“Yes, I heard you the first time, there’s no need to shout.

Exasperated, the student watched the ground accelerate

To him at the S.I. constant of nine point eight.

A red light in the cabin blinked and flashed

A buzzer went off- and then they crashed.

Canto VI: The Most Integral Ideas of Calculus

The unicorn nudged the student away from the wreck.

Like crazy-head Joe clutching his neck,

Corgin fell on the ground groaning and gasping for air

And pondering whether he was to die there.

“My apologies, I must have forgot

We unicorns are a mighty durable lot,

But you fragile humans, you’ve yet to learn

How to take a great tumble without harm or concern.

Now take a break intern, you’ve hit the ground hard.

Get some rest, lick your wounds, as I will stand guard.

Corgin lay down his head and tried to rest

But his dreams were haunted by the test.

Again he met those inte-trolls

Who this time said, "Near are twelve holes

And we will bury you in one

Unless you solve this question,

Suppose f prime of x equals x cubed plus ten

And we want to know f of x when

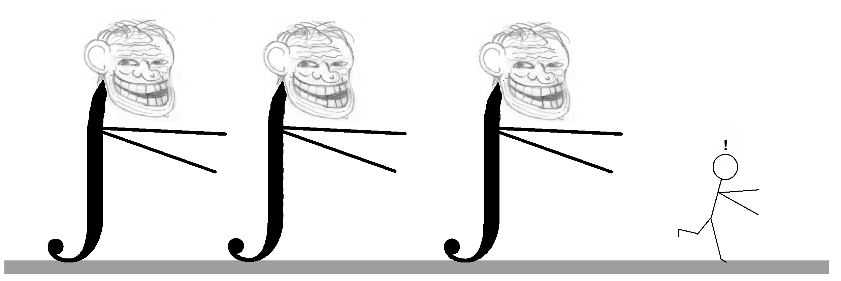
X equals three. So take some initiative,

And compute for us the antiderivative."

Corgin searched and searched his sleepy head

Then panicked and abruptly fled.

The intetrolls pursued him through the dreamscape dreary

Until the student ran himself too weary.

They told him he was a worthless dimwit,

Then threw him down a rocky pit.

He hit the bottom with his head,

And peering down the hole they said,

“Now here’s a thing you should have heard

The name of the game’s from a Latin word

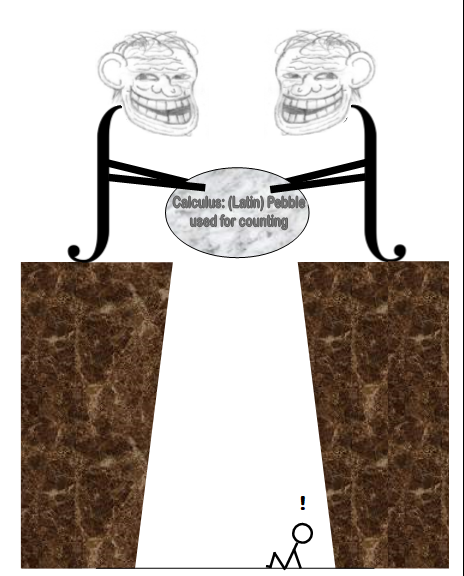
It means ‘tiny rock’, but we’ve a big one for you.

So you can contemplate that which obstructs your view.”.

So with a boulder they sealed that lair

Then giggled, laughed and left him there.

Corgin awoke with an awful scream.

And told his teacher about the dream.

Doctor Mac listened to the nightmare grim

And had a mind to encourage him,

And from his past he told a tale of gruesome terror

A tale of survival past personal failure.

"When but a young and foolish colt,

A novice polymath, a dolt

My mother said with much foresight

'Always stray from argonite,

That mystic alloy, part noble gas

That every unicorn alas,

Falls ill and powerless when near

So mark my words my son, stay clear.'

It pains me still when I report,

When I'd hardly learned to teleport

A pack of lions in the night

Put the entire ranch to fright

And of us all, I alone was able

To escape the infiltrated stable.

I swore upon the next sunrise

To take those villains by surprise.

And slay one for my father: a gentle farm donkey

And ten for my mother: a unicorn noteworthy.

I tracked them to a massive den

Built in twilight depths of the ocean.

I teleported into the complex fitted

With a legion of cats, I'd been outwitted.

For these were no ordinary cats I'd found

But organized monsters who'd worked underground.

I fled and hijacked a submarine

And thought I had escaped unseen.

But I was wrong they'd lured me there

They could kill me easily, without a care.

"A trap!” I feared and I despaired,

My greatest weakness, I’d been ensnared!

My powers were gone! They'd won the fight!”

For those walls were lined with Argonite.

I had pursuers on my tail

I tried to lose them from my trail

I escaped from all save one last fiendish cat

Who armed a torpedo- I was fired at.

The submarine shook- but remained intact

But water was entering- the hull had been cracked.

That submarine was shaped, a pyramid.

It had sprung a leak in its upper lid.

My body burned in pain, but though in fright

I still knew that one third base times height

Yields the volume of the shape

And so to find the best escape

I needed to quickly and correctly devise

A way to deduce the rate of the water's rise

So that I could find the most distance I’d get

Before the inside cabin was unbreathably wet.

I strode across the floor and knowing my pace,

It was three meters across, and it had a square base,

The height appeared like three meters, too

Leaving the hard calculation to do.

The leak was spreading and seeping in faster

Came the terrible twilight zone water.

That meant the rising water was no constant flow

The rate of the tearing, I discovered although.

I counted milliseconds, and measured the speeding rise

And by quick estimation I would surmise,

A cubic meter a minute square

And no, the crack I could not repair.

With that rate of flood and the volume inside

I found I’d get three minutes before I certainly died.

There was a computer that steered the ship.

I worked its controls with my horn’s bony tip.

It told me of a built in water pump

To suck the water, to the ocean to dump.

There was a catch- the submarine’s battery power

Was near entirely directed to running the engines. However,

The computer could adjust the power distribution

So demanded what we call a relate rates solution.

I wanted most to maximize the distance

Between me and the cats before the grim instance,

When my survival would become impossible.

I looked to the computer and found my plan plausible.

The computer gave me the equation for the volume

Of the water the pump each second could vacuum.

Now you know Newton’s second law of motion

That force near-equals mass times acceleration.

The force of my craft’s engine output

Was only changed by the power input.

But the mass of the craft increasing with the leak

As a function of time- so my solution to seek-

One has to consider each piece of the situation

To create the correct and useful composition.

From the force-function I quickly had to find

The speed of the sub in eye of my mind.

That function depended all upon

The power the engine was running on.

As a function of time, I defined the mass

The acceleration to decrease with time to pass.

That rise in mass was checked by the power applied

To the pump removing the sea from my ride.

The engine power remained from the needs the pump brings

So that left me with a very long equation relating two things:

The distance I could travel before the whole cabin was flooded

To the power I’d see to the pumps diverted.

The big secret ingredient- the trick to my survival

Had everything to do with a derivative of zero.

Zero means extreme, as you learned not two hours ago.

Zero slope indicates a trough or a peak

On a hilly graph, so when its extrema you seek-

You set zero for the derivative of the function in mind

And last solve both sides- your unknown variable to find.

And how do you know the difference between

A peak and a trough? With a second derivative, its seen

How your rate of change is changing-

Concave up or down- rising or dropping.

This is called looking for local extrema-

But I still had to sort the maxima from minima

So I needed a test – a second derivative

For if correct my answer twice derived was negative.

Doing all this I found my mark

And located an island to which I’d embark.

I had the computer ration out the power

As computed to delay the threat of the shower.

And delay it I did! That power distribution

Yielded more than enough distance before suffocation

To put my craft aside dry land

And put me uninjured on peaceful sand.

Having come close to shore, I then diverted

Most of the power to the pumps with the purpose

Of losing the weight of the sub to surface.

My war-worn craft made it to shore

Feebly, I opened the airlock door

I pushed myself up into sight of the sun,

My worthless journey was finally done.

I splashed in the water of the shore,

My body still weakened, still terribly sore.

I made my way inland, galloped into the clear

With an insecure future and a heart full of fear.

The moral of this bitter tale:

Do not give up when first you fail.

Though the math can be quite terrifying

We find solutions yet more rewarding.

And if you take nothing away but this point alone:

Don’t attack evil cats in the depths of the twilight zone.”

Then the Ph.D. unicorn bent down and grazed

Corgin’s rest had paid off- he felt no longer dazed.

He smelt of the pinewood listened to the song of a bird

As he sat pondering the story his ears had just heard.

Time had seemed to sweep by with the telling of Mack’s story

How long had he been gone from the dormitory?

The sun was now setting on the birches and pines

He dared not sleep and meet those villain integral signs.

But Corgin heard footsteps about the cart wreck.

Then something cold and sharp touched his sore neck

He turned and came face to helm with one decked in steel,

And it was a long sword that the student could feel.

“Put your hands in the air, put your face on the ground

Trespassing on king’s land you pair have been found!”

So said one knight astride a giant war horse,

Reading from a scroll of parchment, coarse.

They bridled the physicist and put his intern in chains

Then marched them both quickly across valleys and plains.

Hypotenuse took his bearings as they strode ahead.

Then looked to his intern and calmly said,

"I meant to tell you a while ago

We long since crossed the border, so

These knights have cause to try us for invasion

But I intend to make use of this occasion.

There is a human king of this place.

And I'm one to think that his grace

Will have a mind to lend a hand

And expel our foes out of the land.

So I shall make our case to their liege  
And we’ll soon have the cats under siege.”

The soldiers took them to their fort

And rushed them to the royal court.

The king asked the unicorn “What is your plea?”

And the beast chanced a petition with the marquis.

"Your highness I must recommend

You mobilize! Bring to an end,

Those evil cats who, left alone

Would rob you of your worthy throne.

Supply your horsemen, spare no fodder!

Put all evil cats to slaughter!"

Said the king, "That I'll consider.

But first I expect a show of good favor."

"I live to serve." replied the steed.

"Good," said the king "You will indeed.

A city-state upon a hill

Called Blahujerialijenville

A fortnight since I laid to siege

Until King Bob, that place's liege,

Resigned his throne, and in his plea

He offered me a golden key.

This key he said would symbolize

My right to pass into my prize.

Then I was very satisfied

And told my men 'twas time to ride.

Quite glad the city hadn't burned,

And just before I paced and turned.

I shook Bob's hand and said goodbye,

But in the corner of my eye

I saw Bob make an awful sneer

Where just before showed only fear.

And all the way my thoughts were driven

By that token I'd been given.

The key had warmth as if not an hour old

And felt quite light for a thing of gold.

I've called on natural philosophy

To guess the key's sincerity.

But all those arrogant scholars say

Is that I ought cast the key away

Into the basin of an urn

Filled up with water, just to learn,

The size of the alleged key.

But kings must uphold dignity.

They cite a madman of renown

Who once debunked a worthless crown.

Using the said solution loathed

But first ran 'round the town unclothed.

I will not have the thought implied,

'Our king throws riches in the tide.

For in those ornate palace lawns,

The king can't tell his gold from bronze

And counts them both as equal things

Thus throws away his golden rings.

So to the courtyard fountain go

And pan for gold, our king won't know!

For he consults those men of science

Who waste their wisdom in appliance,

And are well known and deservedly hated

As lunatic scoundrels who go about naked.'[[4]](#footnote-4)

That's why I hoped a mathematician,

Could cleanly with his wit and reason

Go tell me using ink and pen

If I ought to siege the town again."

Having heard the problem thus explained

The unicorn replied to that king, famed.

"Your highness, I think I have a solution.

But first must see the key in question."

So would the Ph.D. suggest

But still the king was unimpressed.

"Hypotenuse, did you really think

I'd just resign my key to sink?

I will not risk my key defaced.

Instead I've had its pattern traced.

And on a scale my craftsman made,

The key has been precisely weighed.

And all dimensions we could gather

My scribes have scribbled down on paper.

Your supplies are all set at a table

In the best of every worldly stable.

The mule replied "It shall be done,

Before again returns the sun."

The king bid his soldiers escort

The beast and the intern out of his court.

The party arrived at a desk armed with quills

And every attempt by former skills

To make a guess at the king's question.

Of the alleged treasure's composition

Was sprawled out on the parchment there.

And at their work could Corgin only stare.

And staring at the diagram,

Released a groan from his diaphragm,

And said, "never will I see

How to verify this key.”

The unicorn replied,

"These novices have hardly tried.

Once computing is complete

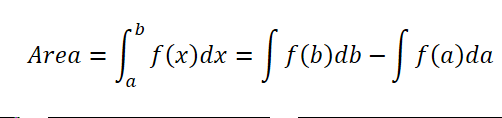
The doing is an easy feat,

For a golden cube one meter long

Is nineteen thousand kilograms strong

Thus once compared to that density

We'll know at last with certainty.

We're told what the key reads when they weigh.

That leaves only the volume in our way.

So be it a true key, or a decorative fob

We'll compute the conscience of that King Bob.”

“How!?” asked Corgin who still hadn’t a clue.

Said Dr. Mack, “The fundamental theorem of calculus part two.

Which says given function continuous with endpoints known

The integral of the function with those same bounds is shown.

Yields the value of the area betwixt the curve

And the x axis bellow to see why, observe:

Imagine slicing up the curve with its many inconceivable angles

Then slicing it vertically into a thousand long rectangles.

The rectangles are flat headed

No perfect fit- instead

They approximate the area by the graph enclosed.

And the more rectangles written and closed

The closer their sum area to that the shape made

By the horizontal axis and the curve when both are outlaid.

So we could add up the area of our rectangles sprawled

A ‘Riemann sum’ this idea is called.

But a thousand is a very hard thing to count to

That’s why we like the fundamental theorem part two.

Which takes infinity rectangles and sums them all up

That being far closer than some Riemann sum build up

We are told that this key is a centimeter thick

With no finer detailing to complicate our arithmetic.

Now there are many different shapes in this key.

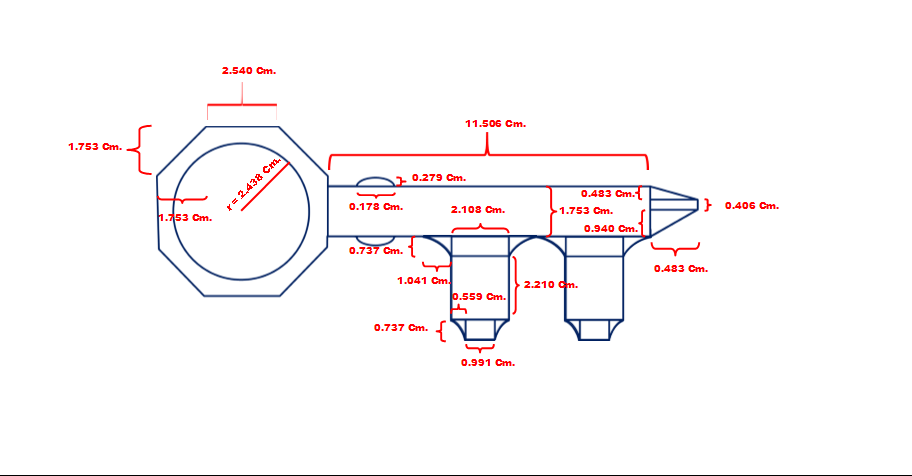
Triangles, rectangles, and octagons I see.

You can easily add up all of those on your own

The last folks here drew that nice diagram shown

On one of those pages you put on the bench

They found it all but the curves which they just couldn’t clench.

The ring has the sides of an octagon.

I can explain, but it's much better drawn.

So add up each of the triangles.

And all the of polygon’s rectangles.

Subtract out the circle- the hole inside

And sum up the areas that you can on our side.”

Several minutes passed by as Corgin worked it all through

And then came time for the fundamental theorem part two.

Hypotenuse watched his student work. With every step checked.

The unicorn broke silence saying, “All that is correct

So to every curve we find on the key

You will then find a curve that fits closely.

And for each curve, the antiderivative you’ll find

And write it down twice side by side- as a difference aligned.

And once two bounds on the function are carefully proposed

We can use the theorem to find the area enclosed

Between the curve and the x axis below

Just plug in the bounds first the high then low.

And then one curve down- plus any identical curve.

Remember where possible, the effort reserve.

And lo and behold! When all that is found

We’ll see your fear of integrals drowned!

Corgin mustered his courage and held back his disgust

And made his best effort with the theory discussed.

And following along with his teacher’s corrections,

He computed the side area with Doctor Mack’s instructions.

Then multiplied it by the known thickness of the key

And divided the mass by that volume, yielding density.

Dr. Mack congratulated his successful intern

For they now knew the density they were sent in to learn.

“What is this!” cried the Ph.D. at frightened stable boy,

And again, at the members of the chaperone convoy.

“Come here and tell me what kind of stable

Has not even one copy of the periodic table?!

Fix it now, or fail your king,” said Mack in a shout

Then a few of the guards shuffled nervously out.

The physicist whispered in his intern’s ear

“If we tell them too quickly I think and I fear

His majesty will be quick to reverse his good word

As soon as our reasoned conclusion’s been heard.

It’s no matter we lack that chart the chemists devised

I’ve the masses of many things memorized.

I know that density you put down with your pen.

And it far more closely resembles that of cheap tin.

But hush hush and quiet let’s not tell them yet.

Let me do the talking and please remain quiet.

We’ll take these papers to court instead.

For I suspect that this king is not very well read.

And won’t know the meaning of what we’ve found here

Until we explain it for him plain and crystal clear.”

Then the unicorn summoned a guard to the station

And said “I know your master’s key’s composition.”

Asked the king when the party soon returned to his throne.

“Well? Is Bob’s sincerity finally known?”

"Your grace, I've tested your key by quill and ink

And now I know the answer you seek.

And I'll gladly explain it as soon as I know

That your forces are armed and ready to go."

The king chuckled regally and so did his court.

But all quickly hushed when he made his retort.

"Do you think my court a band of fools

Who yield their powers to war-monger mules?

Nay! Those secrets you will freely give

And go away happy that I still let you live."

Doctor Hypotenuse stood calm and astute

And made his reply, firm and resolute,

"It's always been my resolution

To never trust a politician,

Thus I hope you'll kindly wait

To hear my answer clear and straight

And first fulfill your end of the deal

Or never find out if the key is real."

Venting out his regal rage.

The king ordered snatched the decisive page,

And strained his eyes to decipher the lines

Of measurements found and integral signs.

Overwhelmed with this parchment, his mind overloaded,

The king's jaw collapsed and his mighty head exploded.

All the court guards were naturally shocked.

The armored men stared and the armored men gawked.

And then a cheer sounded and every spirit soared.

"Dead is the tyrant we all once abhorred!"

"How can we ever repay you Sir Mule

For ending that villain’s oppressive rule?”

So asked a servant, offering many an apple,

And Doctor Mack answered; "Prepare for battle.

You owe me a favor, and this I demand:

We march at once across the land

To lay to siege a castle filled

With wicked fiends who must be killed."

The knights assembled, the weapons were prepped,

And all healthy peasants in armor were decked.

Then, brandishing hay forks and torches,

With most on foot and some on horses,

They let down the gate before Dr. Mack

And left the city unguarded to stage their attack.

And the astrophysicist, with his army in tow

Galloped like a stallion to the fiendish chateau.

The horsemen, the archers, every infantry rank

Arrived soon after with Corgin drafted to a flank.

The Ph.D. met with his generals

And planned the attack in intervals.

Then having given the devised orders

He trotted off haughtily, dismissing the soldiers.

“Now intern, come” said Dr. Mack

“While our comrades put the fort to sack

I’ll teleport ourselves inside

Where the leaders of our foes abide

And in the racket of the battle

While they’re distraught with panic and prattle,

We’ll find who’s in charge here and who is to blame,

And if those culprits should be one and the same.

Whatever the case- I’ll put them under hoof

And take them to Cornelia with quick, gentle ‘poof’.

Corgin followed the mule from the army’s torch glow,

And hoof- to hand they vanished from the meadow.

The two were now in a dark, humid place

With lofty ceilings and a lot of floor space.

A harrowing chuckle echoed therein

“Who was that?” cried out Corgin.

“It was I.” Said a voice in the darkened abode

And soon appeared, a cat that on its hind legs strode.

It wore an old metal box around its chest and a belt.

Corgin held his nose when this creature he smelt.

He could see the cat clearly when it came into the light

And both boy and mule gasped at the paradoxical sight.

For this fiendish cat looked both decrepit and lively.

It unholstered a gun and then smiled slyly.

Corgin started to speak, recognizing the cat.

“I think seen him in a book. Wait, is that?!”

Doctor Mack quite agreed: “Schrödinger’s cat I presume?

‘“Welcome.” It laughed, “To your premeditated doom!”

“We thought you were a myth! We thought you were dead!

We thought you were hypothetical!” The unicorn said.

“Oh dear, dear Hypotenuse, it amuses me to perplex.

For we both use the phrase, ‘Not imaginary, but complex.’

Concerning my death. It is true I’m afraid

I was taken aside and sealed in the shade

Of a miserable box rigged with wires and ropes

To detect if any radio-active isotopes

Had escaped their container and leaked into mine

If found to release a hammer on a line

To smash open a flask of deadly prussic acid.

All sealed up there so firmly and placid.

Schrödinger did that to me in nineteen-thirty five.

That poisoned vial shattered: I didn’t survive.

And yet I survived: alone and afraid,

The vial intact- the hammer had stayed.

You see I’m entangled between either state

Both alive and dead, such were my fate.

You have your task- I too had a mission:

To satirize the Copenhagen interpretation.

What you see is a monster created for science-

Trained in theory, taught nothing but defiance.

What other lab animal was put through such strife,

Before many a physicist made attempts on its life?

Now I hear that Cornelia’s put a price on my head.

But how does one kill what is already dead?”

Another cat entered and said while hauling a sack.

“The tank’s filled, Dr. Schrödinger. Let me strap it on your back.”

“Good work my friend”. Said Schrödinger’s cat

And addressed the unicorn again after that.

“Like Frankenstein’s monster since my literary debut

My creator’s name has become mine, too.

But I’ve suffered a worse fate since the last beat of my heart:

To be internet fodder for folks who want to look smart.

Well, I’ll blow their minds as I have through the years

I’ll squeeze their thin brains through their nostrils and ears!

And as for you unicorns, your orchards I’ll blight

I’ll see you all bankrupt using just your own appetite!

And for you both, I’ve arranged for this hall to lock down tight

And there is in this room a leak of gaseous argonite

From a box of my making set with a fifty percent chance

To diffuse a lethal dosage in air of this expanse.

So until this hall is opened, and half-breed or corpse, your found-

Well, perhaps like me you’ll intertwine, both to life and death be bound.”

Hypotenuse smiled “But to me it appears.”

Your box has stayed closed for all of these years.

Perhaps if opened your state would change-

Compromised, this entanglement strange.

Thus, I shall hand you to my queen who said

That it matters not to her whether alive or dead.”

Dr. Schrödinger unveiled what was strapped to its back-

What Corgin guessed rightly was a metal jetpack.

Again, the cat laughed.” I’ve enjoyed your good show

But the game is up, I’ll have you know,

Hypotenuse, your way past too late.

Your apples are losing at such a fast rate

To the fruit of my many cheaply planted trees:

So the currency of unicorns is bitter-tasting sleaze.

You’ve long lost the war, sir unicorn.

It was already over before you were born.

Now you will starve here alone in this room

And your fellow unicorns soon shall share in that doom.

It was fun finally meeting after all-“

Then a great sound was heard in the hall.

A ram had been brought to the hall’s mighty door

And soon it lay fallen on Dr. Schrödinger’s floor.

Doctor Mack’s army came shaking hammers and bats

And there began the slaughter of many evil cats.

“And was this your great plan?” asked Doctor Mack

“To invite my army, your castle to sack?

Or did you think I was waiting for a unicorn force

Still reluctant to follow the whims of a half-horse?”

The evil cat glowered at the cyborg victor

Doctor Mack smiled wickedly at Schrödinger’s monster

And then evil laughed, and the angered cat in turn

Fired a hole with his gun through the unicorn’s intern.

Then with fullness of spite and abundance of glee

The cat activated it’s rocket while laughing insanely.

Propelled through the hall- that whiskered torpedo

Whizzed out where the door was only moments ago.

Hypotenuse charged, meaning to pursue

But his enemy was quick to fly out of view.

Corgin found his fingers into a hole in his chest

Then he succumbed and fell into rest.

The chamber melted into a darkened lecture hall

Just one ceiling light lit up a certain desk

And by the proctor’s chair in a pose, statuesque

The unicorn astrophysicist with a fury in his eye

Said “It’s time for the test, now give it a try.”

Corgin took his bearings, made a guess on a whim.

But Doctor Hypotenuse wasn’t talking to him.

He was given no exam to pass or fail

Rather the unicorn began to tell a long tale.

“In a dim, somber place between poorly writ definitions

And one problem’s page of hand-written false solutions,

One named Timmy fumbled for a pen

And took a shot in the dark again.”

Lo and behold Corgin saw sitting in the light, taking a test,

Timmy, that rude math prodigy Dr. Mack expressed

And of that young genius on Corgin impressed.

Corgin watched Timmy struggle with a question anew,

A problem like one Corgin had struggled with, too.

That band of intetrolls around Timmy swarmed

They said, “Listen close and you’ll be informed

That beneath a sinewave function it was seen,

On a closed interval- zero and two-thirds pi between

There was the area formed by each wave

Find it for us- your grade to save.”

Dr. Mack narrated Timmy’s every movement

From the question to every subsequent improvement.

“Having written out the integral,” the Unicorn said.

“He imagined the graph of the thing in his head.

He knew the antiderivative of sine

Was really just zero minus cosine

Then with the fundamental theorem applied

He wrote out cosine, and beside that again.

The first had the upper bound plugged in.

That cosine with three halves pi inside,

Equaled negative one-half when simplified

In the second he plugged in his lower bound

Of zero pi- thus ‘one’ was found

Last, he subtracted the second from the first

And rightly knew it the area as so he was versed.”

The Intetrolls filed out like actors from a stage.

Then Timmy took a breath and turned over the page.

Then there was no Timmy, it was Corgin instead

Starring down integrals, scratching his head.

Confused, he summoned the mulish proctor.

“Is this test for me?” he asked the doctor.

The Ph.D. replied. “It was given to you an hour past

And has been by you done- completed at last.”

“But where is Timmy?” asked Corgin, “How did he disappear?”

“Timmy?” said the unicorn, “There is no Timmy here.”

Corgin protested, “But he was- this test is not mine.”

Said the Mule, “It’s your name alone that appears on the line.”

That’s when a shiny, chrome elephant entered the room

And brought its top hat to its mouth with its trunk to consume.

Corgin cleverly caught the beast ruminating

So knew there and then he was hallucinating.

He contemplated this pain-ridden dream.

And wondered if some sign he was to gleam.

“You mean,” he asked, “That he and I are the same?”

The unicorn replied, “A rose thorn by any other name.”

“A thorn?” asked Corgin. The Ph.D affirmed

“Both a thinker and a sadist, confirmed.”

Corgin looked down sullenly at his test

But found every last question correctly addressed.

The test disappeared- it mattered no more.

So Corgin stood up and headed for the door.

“Wait” Said the ghastly mule,

“There’s something you must know.

For should a mean value you must show.

If the derivative of function c

Is continuous betwixt A and B

And differentiable in the space in between

Then calculate the value of the mean.

Take the difference between functions b, and a inside

Simplify that numerator and finally divide

By b minus a, and then you've arrived

For what remains equals f of c derived.”

So said Mackmillion Hypotenuse the thirty-first.

Corgin rolled his eyes when all this was versed..

“Anything else before I bleed to death?” he fussed.

“No.” said the unicorn. “Wake up if you must”.

 The dazed, injured student opened his eyes

Some time had passed since he’d been shot by surprise.

The cats were slain, the battle was won.

The unicorn's task was finally done.

The survivors gathered round the castle

And counted the heads of each serf and each vassal.

Doctor Mack prepared to say his farewell.

And said from the top of a garden stairwell

“My foe is now harmless, his castle is sacked

You’ve all fought well; I release you from your pact”.

A peasant man looked up bitterly, blackened in grime,

Threw down his red hammer and started to climb.

He ascended the steps to the dewy green

Where the unicorn stood- the two were seen

Before all the surviving humans there

He said to the mule, “Why should we care?

This battle means nothing but to you unicorns

Yet it was we and not you who shed blood for your horns.

So get back to your apples and cats on the run

And be glad for your monarch- you’ve left us with none.”

The peasants expressed that they quite agreed

And some there debated whether it was good they were freed.

Hypotenuse rushed to the spot where his student bled

Reminded that Corgin had been shot with a bullet of lead.

He examined him quickly and made his assessment

His fragile human intern would quickly need treatment.

One problem per time was the unicorn’s approach.

He looked to the crowd and addressed their reproach.

“Why do you worry your world-weary heads?

You’re a democracy now- elect your own figureheads.”

A lady in company heckled the mule at large

“And which of us said that you were in charge?

Democracy or monarchy- we’ll decide for ourselves.

So let’s tally the heads- each monarchist and democrat

To choose our new leader by the winner’s standard format.”

The people were quick to divide into factions

And all began bickering about proper first actions.

Some wanted to rest. Most wanted to attack.

Some proposed Blahujerialijenville to sack

One consensus was reached from that rabble, loud and heated

None liked Hypotenuse, they would see him defeated.

Doctor Mack saw plainly he was unsupported.

He put Corgin under hoof and away they teleported.

Returned to the dorm room but a thing was amiss-

For all Corgin’s lodgings were fading to mist.

That was a strange sight for the beast to consider

His student fell on his desk- and there was something stranger.

Corgin was bleeding as he was on the lawn.

And yet it would seem that the injury was gone.

The student stared half-conscious at the opposite wall

As if though he were sleeping with an open eyeball.

The unicorn saw and finally perceived-

There never was a magic steed.

For his pupil was dreaming all through the night.

And that’s why the room was dissolving to light.

So too was Hypotenuse dissolving it would seem.

Because Corgin was waking at last from his dream.

And soon enough the mule knew for sure

He’d vanish into the waking blur.

So fiction too was the wound Corgin was dying from

Thus it was he and not Corgin for whom death had come.

The cyborg half donkey- half unicorn P.hD

Approached the dazed student with dignity.

And said a blessing for his friend

Before came his own story’s end.

“Between all the numbers may you never forget

The beauty of math that once made you fret.

May your generosity approach it's limit,

Approach, but never reach it.

In the bounds of your lifespan may your joy be a function,

Continuous: no splitting from junction to junction.

May you never blame failure on an erring star

May you rather take agency so you will go far.

May you always persist. May you never lose hope.

May your joy never cusp from its positive slope.

And may unto God, you return your life's yield

And with your loved ones abounding, may you graze in his field."

Such was the last that the unicorn spoke.

From his wounds Corgin fainted. And then he awoke.

Canto VII: Introduction to the Big and Scary Test®

He promptly rose and quickly dressed

He had mere minutes until the test

And made it there just seconds before

The proctor closed the test site’s door.

She barred that door with a beam of steel.

And declared her warning before the ordeal.

"This test is not for the faint of heart

If you are nervous, you'd best depart

And not worry your skull with bubbles to fill.

And if while working should you become ill.

I'll snatch up your work, and no surprise

I'll shred your test before your eyes

And then I'll boot you out the door

Lest it spreads while your health is poor.

So heed my warnings if you please.

'Cause I'll flunk any who so much as sneeze.

There will be no rest time and no bathroom break

And snacking while testing is a big mistake.

If I hear cellophane crack, here's what I'll do:

I'll see it ten points is taken from you.

And you will lose a letter grade more

For every last crumb that you let hit the floor.

Until my signal your test don’t peruse.

And I'd read the whole list of don’ts and do’s

But I'm of the belief that a student so dim

To need assistance in the prelim

Should receive no help with the top page

For a zero percent will rightfully gauge

That dunce’s ability as being none

For one lost by the morons is by society won.

Thus, anyone who asks for clarification or aid

Rightly deserves a punishing grade.

Thus, I truly do hope that this test shall forbid

Any perplexed by shading their bubble grid

From advancing to any careers of all of the kinds

Where life will be staked on their faulty minds

At the end of five hours sharp your test will be due

A second late and you’ll flunk with them who haven’t a clue

And a word to the cheaters, if I should spy

A half-concealed card, or a wondering eye,

Then we'll be going to see the Dean

And we won't adjourn until its seen

The case to expel you is fully explained,

Your permanent record's been permanently stained,

And last a phrase we'll brand on your face,

'Here be a fraud of contempt and disgrace'.

So any employers who happen to ask

If this worthless person is up for the task

They'll know before you get a foot in the door

That you’re an odious cheater who should rightly be poor.

This test is gruesome, let me be clear

If any are anxious they are right to fear.

And for those who make mathematics mistakes,

This test gives new meaning to the phrase "high stakes".

Now if you were working as you were ought

You’ve filled the front page- every last spot.

All else that you need you should already know.

The clock’s on the wall. Ready-set-go.”

Corgin opened his test and read all the prose

It was the math section; he again met his foes.

The things of his nightmares that he had much feared.

Those wicked inte-trolls, who this time jeered,

“Five x cubed minus seven x squared plus three

On the interval x equals a to x equals b

Calculate the area beneath that curve

Or forfeit the problem; take the grade you deserve!”.

Corgin pondered the problem and thought to draw the graph

The inte-trolls surrounded him and began to laugh.

One wicked fiend raised his club as Corgin wondered what to do

And then he remembered the fundamental theorem part two.

The weapon fell down, but Corgin caught it in hand.

And recognized the bludgeoner- it was the integrand.

Corgin snatched away the implement

And wrote the function as its argument.

And using the theorem he’d just recalled-

He found the area for which was called.

The intetrolls screamed as he simplified it

And wrote it twice- of two bounds split

By a minus sign- the difference to find

Between the outputs of each bound

Thus the value of the function was found.

The intetrolls trembled and started to flee

Corgin raised the integrand defiantly.

And smote them down each one by one

Until the challenging task was done.

He cried out loud with the problem completed,

“Foul integrals thou art defeated!”

The scratching of graphite came to a stop

He heard several number-two pencils drop

The proctor gave Corgin a look that was quite grotesque.

“We’ll call that strike one” she said and returned to her desk.

Corgin went back to his work and toiled through the test

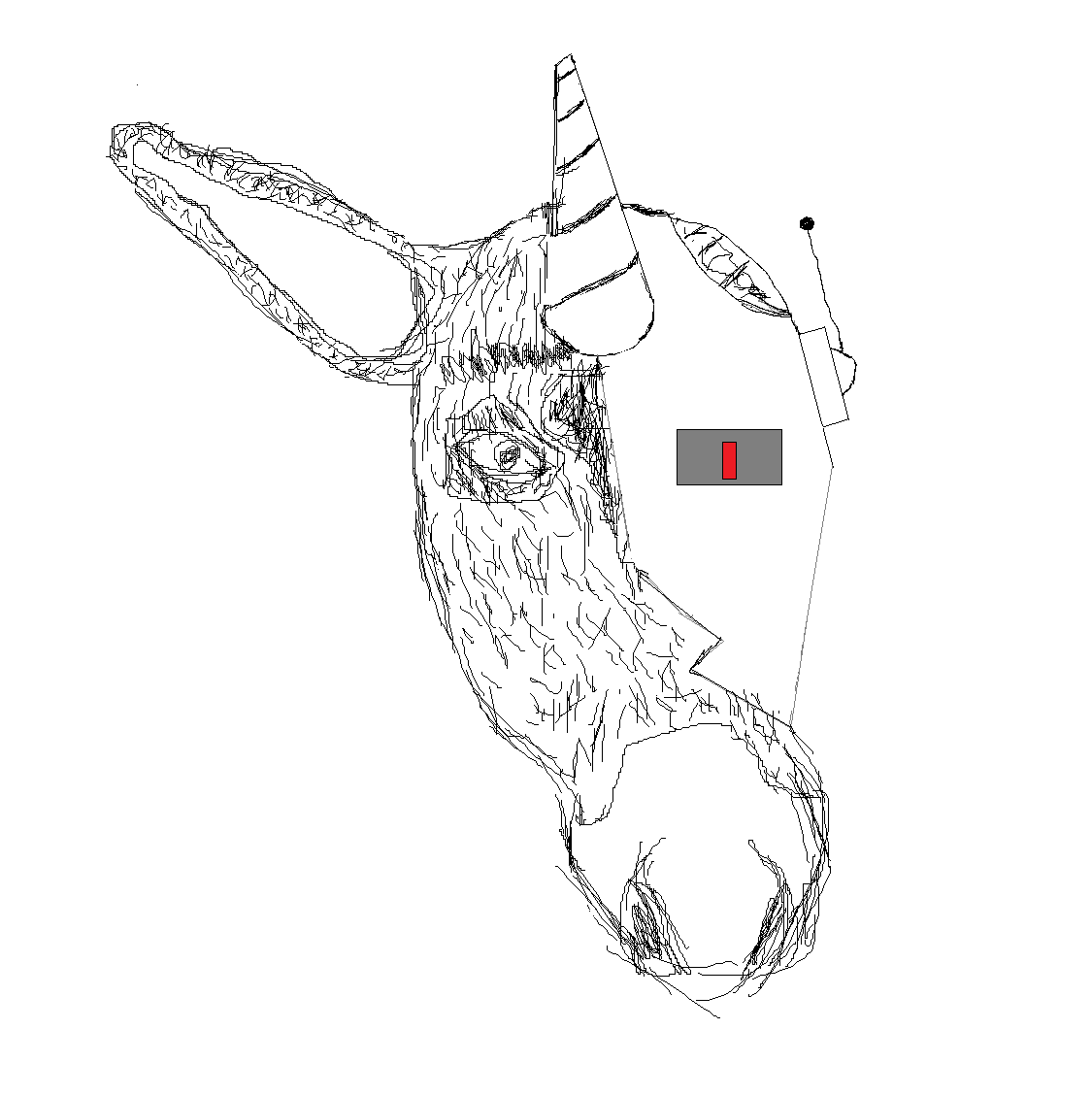
Now thankful the morning had given him rest

To remind him of the beauty and wholeness therein

That loathsome branch of math of such renowned chagrin.

And when came time to stop and depart

He left with strength of mind and joy of heart.

Canto VIII: Epilogue

Corgin lived to be old and wise,

And after retiring from his enterprise

He went back to school to learn how to teach,

And with every lecture, and with every speech

He taught all his pupils with love and respect

Having learned sometimes stories teach better than text.

And he trained each one in the memory

Of Mackmillion Hypotenuse, Ph.D.

-End

A Letter to Covid-19

3 April 2020:

Dear Severe Acute Respiratory Syndrome Coronavirus II,

Boy, we've really got to find you a better name. I know it's not quite right to call you Covid-19, but frankly I don’t care. Nobody cares.

Let me introduce myself. I am a dumb, fanatical college student with asthma. There, that's enough about me.

This time last year no one had even heard of you. Today you need no introduction. You've had a busy few months. You've spread across the continents faster than wildfire. But I've been preparing for you my whole life.

When I was little, I played hide and seek. It’s a silly game for silly kids. A few people find dark, quiet places to hide, one person is "it". I still don't know what "it" means. You, like "it" are transferred by human contact. Maybe "it" is simply generic, "it" stands in for whatever "it" is. "When you are "it" you are the most fearsome thing on the playground: that is all "it" means.

People talk about coronaviruses, although most people have had a coronavirus before. They used to mean the common cold. But not anymore. Your no longer just *a* corona virus. You've become *the*coronavirus.

The whole, wide world is having an absolutely terrible time because of you. So, congratulations, you've become the world's most hated bundle of proteins. You are officially "it".

I know this whole mess is not exactly your fault. We may have stumbled upon you. Maybe we invaded your space. Maybe we fished in waters we shouldn't have. We may have woken you up. But we don't care. "Ready or not, here I come!"

Playing hide and seek was not much fun at the start of the game. You tell yourself the room you are in is hidden enough. You think to yourself that no one will ever find you down here. You pretend that no one ever comes here, that it is the last place they would check. You say to yourself that everyone else will be found before you are. I was at school when I began to get worried.

Being "it" might be fun at first. The other kids sit in their dark, quiet spaces quivering in terror of you. But "it" is only fun for a little while. You may be the most fearsome thing on the playground. But sooner or later the other kids catch on- and start to play a meaner game.

The games get scarier the older you get. In elementary school it wasn't good enough just to find the other kids anymore. When you've grown up to be a big first grader, you have to catch them- and tag them. So there "it" goes trying to catch someone, anyone. But that is hard, grueling work. Your next victim will see you coming from the other end of the playground. And then the other children, safely perched on the playground set, will start to make fun and heckle. Kids are cruel. Actually, adults are cruel too, they just do a better job of pretending that their cruelty makes them just. I am not writing this because I want to explain the finer points of the game. I am writing because I want to heckle.

When we got older, the game of tag changed again for my peers again. You might even say it mutated. Back in the sixth grade, we played "zombie tag". Zombie tag is just like any other game of tag, with two important distinctions. First, the zombie is selected without the players' knowledge. When the game starts, the zombie can be anybody. Your best friend might be a zombie in disguise, just waiting for you to put your guard down. The second important distinction: when you get tagged, you become a zombie, but when you tag someone else, you *stay*a zombie.

Over spring break my friends and mentors were starting to get jittery. We chatted, nervously about your coming while we worked on our ROV in the computer science lab and the engineering makerspace. Together, we were assembling, programming, cutting, drilling, and soldering a thing of beauty. We wondered what would happen if our event was cancelled on your account. We told ourselves we would keep on building to the end. We saw some workers digging a trench up by the Emmanuel building. We joked to ourselves that they were preparing mass graves. And yet we were still content to drive to the top of the hill. Then our event was cancelled and I haven't touched a soldering iron since.

In the engineering labs, I grabbed our bundles of power cable and carried it down the hall to find a room where I could stretch it out. Looking ahead was as if I could see the hallway properly for the first time. I now saw every table, toolbox, and door handle as a surface where you might be lurking.

So, you've mutated? You've changed the rules of the game? Do you think yourself powerful yet? Yes, we know you are dangerous, but you should be worried. We are apex predators. Actually- that's an understatement. We are *the*apex predators.

So, you are hunting us and using our very cells to grow more of yourself? We hunt too you know. Actually, we don't merely hunt other creatures. That's not good enough for us, just as playing hide and seek isn't good enough for children. After we move past hunting other creatures, we domesticate and enslave them. We raise their progeny to better serve us on the dinner table. We selectively breed them to maximize the rich, juicy meat we can later pluck off their bones. You might be viral, but we subdue the earth.

 We've had other plagues you know; the black death, bubonic plague, smallpox, influenza, HIV, Ebola. But before you came along, we were pulling the hairs out of our heads trying to find someone to blame. It seems like we all need something terrible- anything terrible to help us revel in our self-righteousness. If "it" isn't you, it's someone else.

We've done the whole world war thing before; twice. Neither time was pretty. Humanity has done some very ugly things, as it did in many bloody revolutions and uprisings, as it did when it instituted racial slavery, as it did in many so called "holy wars", and as it always has. Those are just the kinds of things humanity does to itself, so what then do you think humanity is going to do to you?

This is a new kind world war. Actually, it’s the best kind of world war we could of asked for. Because this time, all humanity has something better to fight than itself: you. So welcome to world war III Covid, your not going to like what happens next.

Every kid who plays tag has a secret. As terrible as "it" is, as frightening as the prospect of being tagged is, as horrible as the long wait in the dark, lonely closet can be, every player is glad, jubilant even, to be playing the game.

As such I am encouraged. I hope that we all might glean some clarity as we dispatch you. Before you changed the rules of the game, we humans were stressing ourselves countless other "its". Often, we make "its" of each other. After all, there is no shortage of splinters in our neighbors' eyes to scrutinize, scold into their faces about, or condemn from the soap box. Fighting other people is easy, and it makes us feel just so, self-righteous and just. What is so much harder is learning to listen from afar, to speak calmly in the middle of a crisis, to empathize with people we don't know.

I am encouraged because humans, spread across continents, are panicking- together. We are suffering, some more than others, but all together. We might all be going crazy. But we are going crazy together. And I am inclined to wonder if perhaps, in our isolation we might become more united than we have been in a very long time.

So now you've really done it dear Covid. You've stirred up humanity's need for humanity. Don't get me wrong, I wish you had never mutated. But deep down, I am glad to be playing this game with you, because finally, at long last, something else is "it" again.

As for me, this isn't tag. If I can't keep you out with brick walls, or my skin, or by hand washing; if you do manage to catch me, I will fight you to the death with every cell in my body. My body will sic its white blood cells on you. They will open up wide and engulf you. You don't want to mess with my cells. If you and I should meet, just remember (and dread) that I have something like a ninety-five percent chance of survival and nothing to lose.

But for now, I only have one more thing to say to you: MISSED ME! MISSED ME! NOW YOU'VE GOT TO KISS ME!

Wishing you a terrible day,

 Henry

Cover Art



Saturn Devouring the Persistence of Memory by Henry Holben

The cover art was inspired by two very different paintings: “Saturn Devouring His Son” by Peter Paul Rubens and “The Persistence of Memory” by Salvador Dali.



Early Sketch: “The Persistence of Kronus”

1. Horace and Immanuel Kant: “Sapere aude”, “Dare to know” [↑](#footnote-ref-1)
2. Plato paraphrasing Socrates: “I know that I know nothing” [↑](#footnote-ref-2)
3. René Descartes: “Cogito, ergo sum”, “I think, therefore I am.” [↑](#footnote-ref-3)
4. The king here is referring to Marcus Vitruvius Pollo’s story of Archimedes and the crown of the king of Syracuse [↑](#footnote-ref-4)