

DIRECTOR'S SCRIPT



EL LIP SES

Book, Music, and Lyrics
DAVID QUANG PHAM

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ELLIPSES

The Universe
in a Musical
by
David Quang Pham



WORKING TITLE

PLAYWRIGHTS



THANK YOU

Name	Role
Andrea Ghez	Professors of Galaxies
Ed Loh	
<u>Janelle Lawrence</u>	Operatic/Musical Mentor
<u>Kristin Idaszak</u>	Science Playwriting Mentor
Daniela Cobb*	Originated Singer of SPT0615-JD
Minka Wiltz*	Originated Singer of Singularity
Abby Holland	Originated Singer of Triangulum
Skye Passmore	Originated Singer of Whirlpool
Isake Akanke	Monday Night Development Workshops
Jeff Hathcoat	Readers*
Kate Jacoby	
Bryan Montemayor	
Lee Osorio ²	
Mary Lynn Owen	
Sofia Palmero	
Lau'rie Roach	
Parris Sarter ²	
Imani Vaughn-Jones ²	



DEVELOPMENT

Date	Type	Site	Specifics
2017	Idea	Michigan State	AST 308 Galaxies and Cosmology by Ed Loh
2020 8-15	Writing	Working Title Playwrights	Addae Moon's Master Class, "Generating Story Idea"
2020 10-5	Reading "Bounce"	Working Title Playwrights	Monday Night Critique Sessions
2020 11-13	Reading (Preview)	S.I.S.R!	Hosted by Michael Perrie Jr and Lacy Reily ellipsesplay.com/events/2020-11-14
2020 12-7	Reading "Heat Death"	Working Title Playwrights	Monday Night Critique Sessions
2021 2-1	Reading "Big Bang"	Working Title Playwrights	Monday Night Development Workshops

SYNOPSIS

An astrophysics epic, ELLIPSES centers on the Galaxy family and their quest to undo the Big Bang, after a member sets it off. This coming-of-age musical follows a teenager and their dog running away from home. SPT0615-JD and Gravity, a tidal force, journey to the Edge of our Universe. The story explores the Big Crunch Theory and Hubble's Law, which states that Galaxies must distance from the Center. They are like human beings, as we want to get out and explore. The analogy is expressed through these cosmic personifications. The set has a Dome Home to represent the Center, the stage is space, and the fourth wall is the Edge. The Universe is told through the relative experience.

The teenage Galaxies begin their routine by scoping out the Edge ("[Bounce](#)"). Their parent calls them up for supper. Singularity nurtures them and their tidal dogs, but a child is missing at the table ("[Crunch](#)"). JD still looks out, tangentially wanting to go to the Edge ("[Cutting Edge](#)"). However, Singularity speaks of its perils and sends them to bed ("[Fixed Stars](#)"). Letting JD out of bed, Triangulum outlines their family values ("[Anomaly is Everything](#)"). Eager for a voyage anyways, JD finds Singularity's Big Bang Taser stashed under the rug, and deems the fabric of spacetime to be just as sturdy ("[Zilch](#)"). Later, Singularity assesses their children's black-hole hearts ("[Luminous](#)"). With this being the final straw, JD strikes their parent with the Big Bang Taser into a coma. In the chaos, Gravity discreetly picks up Singularity's dislodged eye. Then, JD flees with Gravity to the Edge, but the Edge keeps distancing. It is like a rolled-up rug that JD keeps rolling away ("[Big Bang](#)").

Triangulum decides to journey out to the Edge with Andromeda. They instruct Cartwheel and Whirlpool to babysit Milky Way and feed the dogs. However, Cartwheel and Whirlpool heads out as well. Elsewhere, JD and Gravity are on an adventure ("[Verse](#)"). Soon, Cartwheel and Whirlpool decide to return home ("[Time is Relative](#)"). They come to find that Milky Way is missing and the dogs are unfed and upset ("[Spaghetti Horizon](#)"). Isolated and alone, Milky Way speaks to their planetary friends ("[Warp, Waves, and Wrinkles](#)"). Eventually, Triangulum and Andromeda find Milky Way in an exhausted state ("[Globular](#)"). Apparently, the Solar System has developed into a swelling. Despite Triangulum's objections, Andromeda comes to the aid of Milky Way. As a response, Milky Way becomes a Quasar ("[Fabric](#)").



A trillion years pass, and JD and Gravity are still traversing space. They find time to play fetch, and Gravity catches on JD's fugue. Through a stellar speech, Gravity explains that the point of return is far-fetched. When retrieving a star, Gravity accidentally fetches over Singularity's eye ("[Far-Fetched](#)").

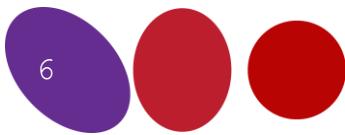
From the Center, Singularity awakens ("[Point](#)").

In the following act, Singularity's backstory is evaluated as they ran away from their own Universe ("[Heat Death](#)"). Presently, JD and Gravity discuss their history as they know how to communicate. Soon, most siblings have clustered together ("[Bounce Back](#)"). They reach JD and Gravity, and take them in. JD dreams to do what their parent did ("[Apparent](#)"). Triangulum threatens to stop JD from doing so and Whirlpool destroys JD's scope ("[The Scope of Things](#)"). However, Gravity calls a wave of tidal forces to their location and they escape ("[Big Rip](#)"). Singularity comes to their rescue ("[It's About Spacetime](#)").

An eternity passes, and JD is lost more than ever without their scope. They have hit a wall while looking for the Edge. Gravity believes that one can overcome by relaxing ("[Parallax](#)"). In that spirit, the Edge unveils. Surrounded by spectacles reminding them of family, JD decides to head back, taking the Edge with them ("[Tangent](#)"). Gravity feels betrayed, as they fought hard for the wide-open space, only for it to be a singularity again. They run away and JD is left returning home alone ("[...](#)"). JD tries to give back Singularity's eye when they return, but they do not forgive JD. After giving Gravity one last hug, JD jumps off the Edge ("[Shed Light](#)"). In these millennia of grief, the siblings hold each other close ("[*](#)"). Singularity chooses to take in their eye, restoring their depth perception. Singularity looks beyond. JD is amongst their own family. To the eye of the beholder, it is an ellipse full of Galaxies. JD has found their center ("[Hearts in the Right Place](#)").

All of a sudden in JD's honor, Gravity returns with a wolfpack. The Galaxies and the tidal forces end time in this epic showdown ("[The Spaghettification of Zenith](#)"). When all is lost, Singularity and their Galaxies pray at their table in the Center of our Universe as the tidal forces consume them ("[Big Crunch](#)"). In the darkness, a bang is seen and heard again ("[Big Bounce](#)").

The supermassive heart of the story is the Big Bang Theory and finding oneself after it, either as an anomaly and as a family.



CHARACTER BREAKDOWN

○ Androgyny and Astronomy ○

Character	Nature	Identity
<u>SINGULARITY</u> The relativistically impossible single parent. Singularity wants to keep the oneness of the Universe.	Super Infinite Black Hole	Adult
<u>GRAVITY</u> A tidal dog. Gravity wants to ground the wide-open space.	Tidal Force	Any
<u>SPT0615-JD</u> The distant galactic sibling. JD wants to shed light and be apparent to the lightless.	Embryonic Galaxy	Young Adult
<u>CARTWHEEL</u> The aerobic galactic sibling. Cartwheel wants to earn their ring.	Ring Galaxy	Teenager
<u>WHIRLPOOL</u> The anaerobic galactic sibling. Whirlpool wants to spiral into risk control.	Grand-Design Spiral Galaxy	Teenager
<u>TRIANGULUM</u> The jingoistic galactic sibling. Triangulum wants to be the role model.	Spiral Galaxy	Teenager
<u>ANDROMEDA</u> The scenic galactic sibling. Andromeda wants to find the pearl in this universal oyster.	Spiral Galaxy	Teenager
<u>MILKY WAY</u> The angelic galactic sibling. Milky Way wants to make themself useful.	Barred Spiral Galaxy	Preadolescent

Ensembles

<u>TIDALS</u>	<u>SOLAR SYSTEMS</u> Sun (Singularity) Earth (ensemble) Jupiter (Whirlpool) Saturn (Cartwheel) Uranus (Triangulum) Eris (JD) Oort Cloud (Andromeda)	<u>MULTIPLICITIES</u> A (Fix) Ω (Invariant) ABELL*
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BRIGHT IDEA*

<u>ABELL 2261</u>	Elliptical Galaxy An anomalous galactic sweetheart, beyond the Edge of the Universe. "Abell" is the stage name of JD's performer's literal loved one in the audience. Their heart is not a supermassive black hole, much like Multiplicities.	Onlooker
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TIDALS

Tidals are tidal forces personified as canines. Over the course of the story, the dogs evolve into wolves.

The barks and woofs of Tidals are uttered by barking: "Force." Their howls are uttered by howling: "Fall." Singularity and most Galaxies cannot converse with the Tidals. Along JD's and Gravity's voyage to the Edge of the Universe, JD eventually understands the tidal language.

SOLAR SYSTEMS

Solar Systems are celestial bodies that speak to Milky Way when they wander the Universe alone. They are like imaginary friends, before these planetary friends physically come to life as puppets and dancers. During the first act, they speak for several billion years (quarter-hour staging time) before the Sun becomes a red giant (swelling). Any set of cast members may voice our general Solar System. The principal casts are marked in parentheses for convenient doubling.

MULTIPLICITIES

Multiplicities are Galaxies seated in the audience of the theatre. They are literally audience members. Multiplicity A and Ω are Singularity's parents. Singularity was born and raised by them in another universe. Unlike Galaxies in our universe, they do not have a heart and are constantly shedding light. Singularity was an anomaly there. Multiplicities invented the Big Bang Tasers as they are laws of physics enforcers in a universe made up entirely of electricity. In "Heat Death," Multiplicities cry out for Singularity, after Singularity runs away from home.

MUSICAL NUMBERS

#	Page	Title	Characters	oPresent but unvocal
1.	16	<u>Bounce</u>	JD TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL	
2.	24	<u>Crunch</u>	SINGULARITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL JD GRAVITY tidals	
3.	25	<u>Cutting Edge</u>	JD GRAVITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL SINGULARITY	
4.	33	<u>Fixed Stars</u>	SINGULARITY ANDROMEDA JD TRIANGULUM MILKY WAY WHIRLPOOL CARTWHEEL	
5.	39	<u>Anomaly is Everything</u>	TRIANGULUM JD	
6.	42	<u>Zilch</u>	JD GRAVITY tidals	
7.	47	<u>Luminous</u>	SINGULARITY JD TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL	
8.	49	<u>Big Bang</u>	JD SINGULARITY GRAVITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL tidals	
9.	63	<u>Verse</u>	JD GRAVITY	
10.	73	<u>Time is Relative</u>	WHIRLPOOL CARTWHEEL	
11.	82	<u>Spaghetti Horizon</u>	SINGULARITY WHIRLPOOL CARTWHEEL tidals	
12.	89	<u>Warp, Waves, and Wrinkles</u>	MILKY WAY solar systems	
13.	95	<u>Globular</u>	ANDROMEDA TRIANGULUM	
14.	98	<u>Fabric</u>	TRIANGULUM ANDROMEDA MILKY WAY tidals	
15.	106	<u>Far-Fetched</u>	GRAVITY JD	
16.	111	<u>Point</u>	SINGULARITY multiplicity tidals	
17.	115	<u>Heat Death</u>	SINGULARITY multiplicities tidals GRAVITY	
18.	129	<u>Bounce Back</u>	TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL	
19.	143	<u>Apparent</u>	JD GRAVITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL	
20.	147	<u>The Scope of Things</u>	TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL JD GRAVITY	
21.	154	<u>Big Rip</u>	ANDROMEDA MILKY WAY SINGULARITY tidals TRIANGULUM WHIRLPOOL CARTWHEEL	
22.	160	<u>It's About Spacetime</u>	SINGULARITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL	
23.	164	<u>Parallax</u>	GRAVITY JD	
24.	168	<u>Tangent</u>	JD GRAVITY	



#	Page	Title	Characters	○Present but unvocal
25.	172	<u>...</u>	GRAVITY tidals JD	
26.	183	<u>Shed Light</u>	JD SINGULARITY GRAVITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL	
27.	191	<u>*</u>	ANDROMEDA WHIRLPOOL MILKY WAY CARTWHEEL TRIANGULUM SINGULARITY	
28.	193	<u>Hearts in the Right Place</u>	JD SINGULARITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL multiplicities	
29.	194	<u>(The Spaghettification of) Zenith</u>	GRAVITY SINGULARITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL tidals	
30.	201	<u>Big Crunch</u>	SINGULARITY TRIANGULUM ANDROMEDA MILKY WAY WHIRLPOOL CARTWHEEL tidals	
31.	204	<u>Big Bounce</u> <u>Able</u>	COMPANY ABELL	

MUSICAL CHARACTERIZATIONS

SINGULARITY| The hums are the longing melodies in "Heat Death":
D3-5 B2-4 C#3-5 G#2-4 E2-4 F#2-4 G#2-4 F#2-4

TRIANGULUM| Associative Instruments: Triangle, Handbell

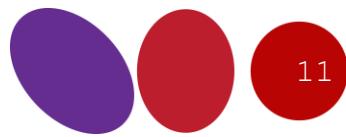
MILKY WAY| Associative Instrument: Cowbell (may be attached to Milky Way's physicality or personality)

CARTWHEEL| Associative Instruments: Jingle Ring Tambourine, Jingle Bell

ABELL| Leitmotif from "Able" whenever Abell is focused upon.
"Able" is in the second phrase in "Hearts in the Right Place."

SCENES

Act	Page	Location	SET props
Ii	15	The Center of the Universe	DOME HOME RUG(dark) SEATS(7) TABLE balls Big Bang Taser dishes knapsack monoculars(2) snow globe whoopie cushion
Iii	63	The Fabric of Spacetime	FIELD EQUATIONS (including $f = ma$, $v = H_0 D$, $\Delta t = (\Delta t_0) / \sqrt{1 - v^2 / c^2}$) knapsack magnolia flowers(2) monoculars(2)
Iiii	82	The Center of the Universe	DOME HOME RUG SEATS(6) TABLE Singularity's body glasses on the rug
Iiv	84	The Fabric of Spacetime	balls knapsack monoculars(2) dishes eyeball
Iv	111	The Center of the Universe	DOME HOME SEATS(1) TABLE RUG glasses on the rug
III	115	Singularity's Past Universe	DOME HOME Big Bang Taser fabric(dark)
IIii	125	The Fabric of Spacetime	balls eyeball knapsack
IIiii	138	The Continuum Checkpoint	3 DOMES [left: doghouse, middle: sleeping quarter, right: command post] balls knapsack snow globe
IIiv	161	The Fabric of Spacetime	FIELD EQUATIONS (including $d = 1 / p$) balls
IIv	167	The Edge of the Universe	balls
IIvi	172	The Center of the Universe	DOME HOME RUG SEATS(6) TABLE Big Bang Taser
III	204	A Fresh Universe	DOME HOME RUG SEATS(6) TABLE balls knapsack snow globe

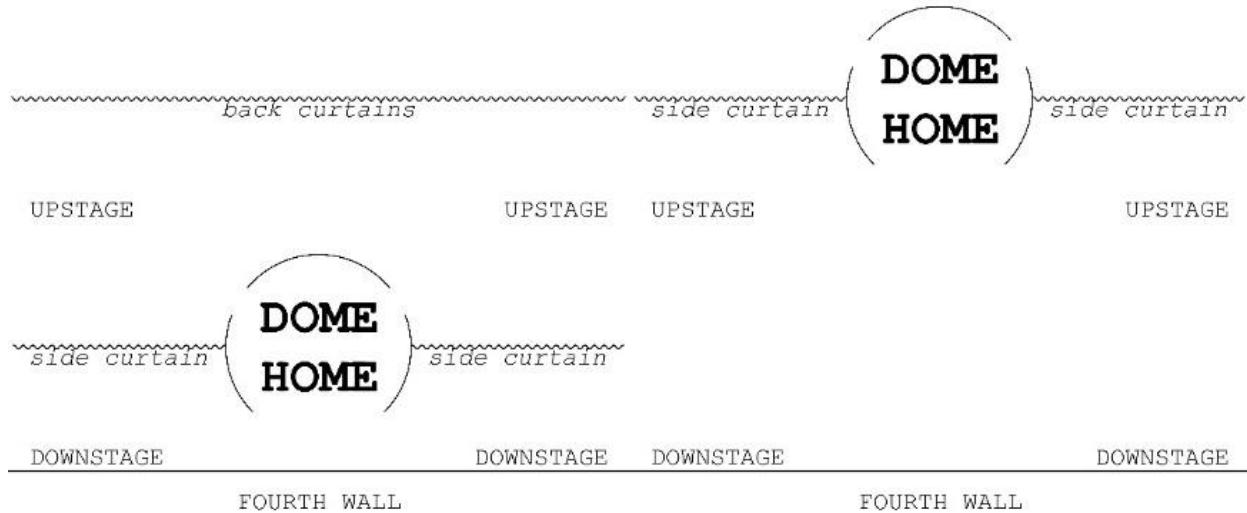


SETTINGS

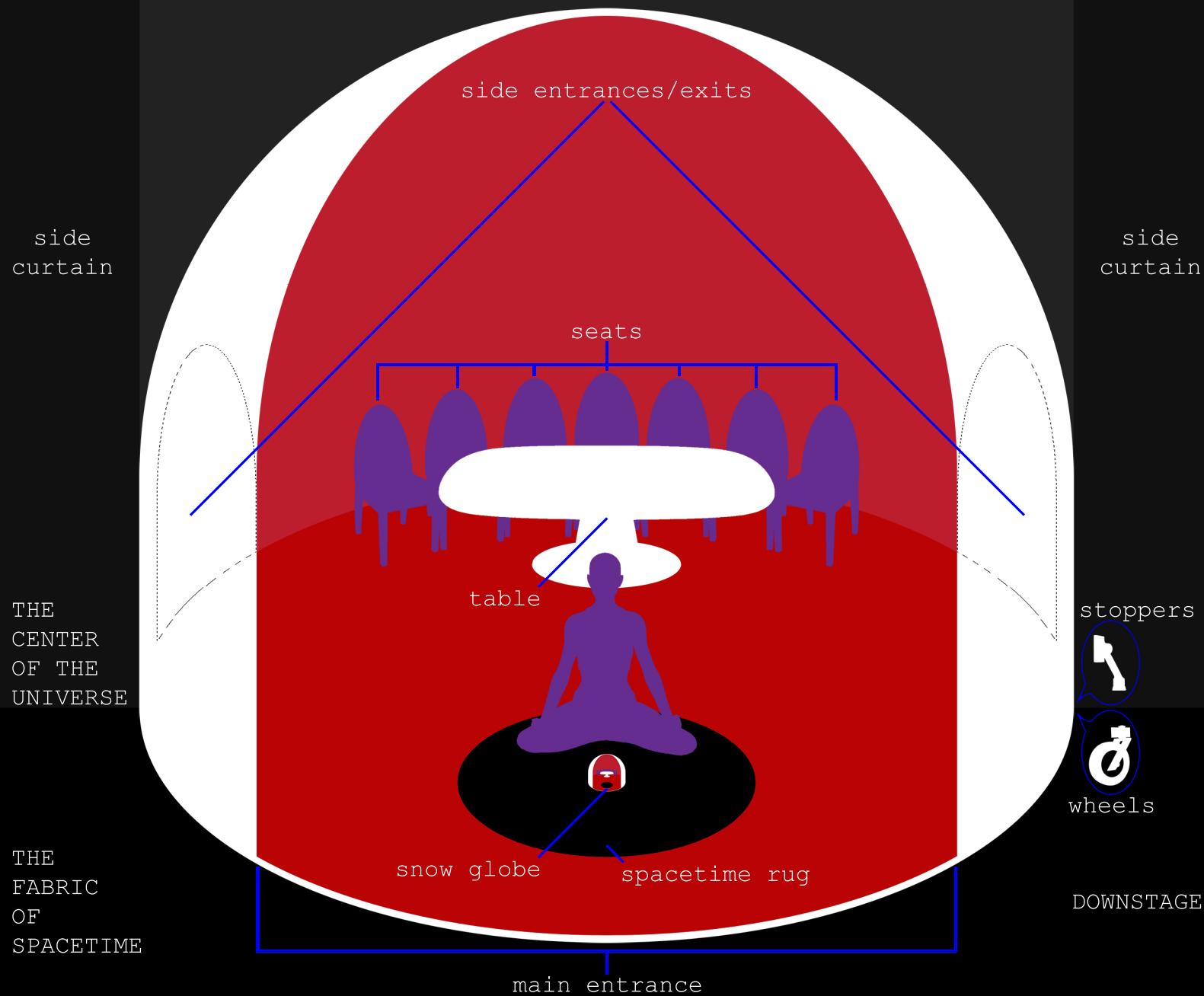
THE CENTER OF THE UNIVERSE

Pre-Big Bang & Big Bounce

Post-Big Bang

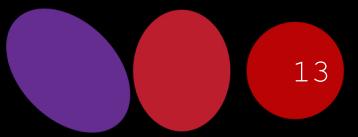


THE ELLIPSE / DOME HOME



THE EDGE OF THE UNIVERSE

FOURTH WALL



THE CONTINUUM CHECKPOINT

Doghouse



Sleeping Quarters



Command Post



ACT I



[*The Center of the Universe*]

[*The Dome is positioned downstage center. There is a table with seats and a rug inside. Lights dwell within the home. Outside, the stage is off limits. Everything upstage is concealed by the side curtains.*]

(*SINGULARITY hums and meditates on the rug.*)

(*MULTIPLICITIES are in the audience.*)

MULTIPLICITIES

Nothing.

(*SINGULARITY pulls out the Big Bang Taser from underneath the rug. They aim it outwards. They ignite the Big Bang Taser.*)

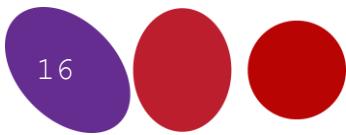
(*The TIDALS distantly whimper.*)

[*The lights flicker. The side curtains ripple. Field equations loom in the space. The Universe flashes their wonder.*]

(*From the audience, ABELL enters. They find a seat to sit in the audience.*)

(*SINGULARITY stops the Big Bang Taser.*)

[*The Universe returns to normal.*]



(*SINGULARITY stows away the Big Bang Taser under the rug. They look upon ABELL. They beat their heart.*)

SINGULARITY

Nothing...

(*Leaving through a side exit.*)

1. BOUNCE

[*In the audience, a particle of light momentarily rests on ABELL.*]

(*JD arrives, carrying two monoculars. They position themself at the edge of the home. They look out through both monoculars.*)

(*TRIANGULUM wanders out, carrying a snow globe that resembles the home. They head to JD. They notice that JD holds two monoculars. They snatch one. They look out through it.*)

TRIANGULUM

NOTHING.

(*Tossing the monocular.*)

(*WHIRLPOOL spirals out. They catch the monocular. They look out.*)

WHIRLPOOL

NOTHING!

(*CARTWHEEL cartwheels out. They snatch the monocular from WHIRLPOOL. They look out.*)

**CARTWHEEL**

NOTHING!

(*ANDROMEDA pops out.*)

(*CARTWHEEL hands the monocular to ANDROMEDA.*)

ANDROMEDA

NOTHING!

(*Stowing away the monocular.*)

(*MILKY WAY is disheveled. They stroll in.*)

MILKY WAY

NOTHIN'...

(*The GALAXIES not JD cluster in the center.*)

GALAXIES not JD

LET'S BOUNCE!

(*Bouncing away from each other. They land on their respective walls. They distinctly move and dance alongside the walls of the home. They distinctly pose or slow down whenever the melody has rests. Through choreographic exposition, they detail themselves perfectly. Now, all they need are their names.*)

(*SINGULARITY remains absent.*)

SINGULARITY

MILKY WAY!

(*MILKY WAY lugs their way to the table.*)

**SINGULARITY** (cont.)

ANDROMEDA!

(*ANDROMEDA heads to the table.*)

TRIANGULUM!

(*TRIANGULUM triangulates to the table. They set the snow globe on the table.*)

WHIRLPOOL!

(*WHIRLPOOL spirals to the table.*)

CARTWHEEL!

(*CARTWHEEL cartwheels to the table.*)

JD!

(*JD remains staring out at the Edge.*)

JD

NOTHING...?

[End of "Bounce."]

(*The TIDALS prowl in and surround the table.*)

(*SINGULARITY arrives with dishes. They bow.*)

**SINGULARITY**

Declinations, family. The Galaxy family. It is that time.

(*MILKY WAY hugs SINGULARITY.*)

(*SINGULARITY places a dish on the ground.*)

(*The TIDALS feast on the dish on the ground.*)

(*The GALAXIES at the table sit themselves.*)

(*TRIANGULUM sits on the whoopie cushion.*)

(*CARTWHEEL and WHIRLPOOL hold their laughs.*)

Looks like someone enjoyed a little too much gas giants.

(*MILKY WAYS snickers.*)

TRIANGULUM

Quit the snickers, Milky Way.

CARTWHEEL

The concept of time?

WHIRLPOOL

Hmm... What is time?

SINGULARITY

You would know time in a timely manner, when you meditate on it. Has any of you seen my scopes? The only place it could be is in our Center of the Universe. They have to be somewhere in this Dome Home. *This Ellipse...*



(*SINGULARITY looks upon the snow globe.*)

(*TRIANGULUM looks out towards JD.*)

TRIANGULUM

Well, least *nothing* is found at the Edge of the Universe.

WHIRLPOOL

Let's be here at the table, where everything are asterisks. By the way, that *nothing*, perhaps, is at risk.

(*SINGULARITY passes out the dishes.*)

SINGULARITY

There is nothing to risk but your lives if you leave this Dome. If you somehow escape my gravitational pull and step out onto the fabric of spacetime, you'll end up ripping apart the cosmos. Then I, the master of the Universe, will be out of order. We have all the cosmic formulas we need right here in our Center. I did what any supermassive parent would do. With my wrists and black-hole heart, I cooked you all up something special. Nuclear pasta and meteors.

ANDROMEDA

Special for the trillionth millennium...

SINGULARITY

I'm especially happy that you're just as thrilled as the first millennium. Our meals are heated to almost 15 million degrees Kelvin and rotated within the prototype cosmic microwave background at the angular velocity of 14.713 minus 2.396 sine squared its solar latitude minus 1.787 sine to the fourth power of its solar latitude. Strongest material in the Universe. A variety of nutrition from the crusts of neutron stars. Dismantle the mantle. But leave the core. I'd love to planet these.



(*GRAVITY tries to grab TRIANGULUM's dish.*)

(*TRIANGULUM slaps away GRAVITY*)

TRIANGULUM

Tidal dog... That is not for you to gravitate to.

SINGULARITY

Throw the dog a meteor. If a tidal force wants a swig, they can have some spaghettiification. Fix...?

(*GRAVITY obediently sits.*)

(*SINGULARITY tosses unseen food to GRAVITY.*)

(*GRAVITY devours the invisible spaghetti.*)

SINGULARITY

Who are good tidal forces? You all are!

(*The TIDALS wag their tails.*)

TIDALS

Force! Force! Force! Force! Force! Force! Force! Force! Force!

(*SINGULARITY tries to get the TIDALS to sit.*)

SINGULARITY

Fix. Fix. Fix. Fix. Fix. Fix. Fix. Fix.

(*WHIRLPOOL prepares to pray.*)



(*MILKY WAY dives into their dish.*)

TRIANGULUM

Again, Milky Way?

ANDROMEDA

Ye mostly photons, Triangulum.

CARTWHEEL

It takes eight millennia to burn that, Andromeda.

WHIRLPOOL

A simple nap ain't last any longer, Cartwheel.

SINGULARITY

Most of you went through a phase where you ate megatons of nuclear pasta. You want to go through accretion and be a grand-design spiral Galaxy, don't you?

(*CARTWHEEL taps WHIRLPOOL on the shoulder.*)

WHIRLPOOL

You may be well rounded, but you ain't got spiral arms in this fight. You're filled with blue stars. Ain't it ring a bell, Ring Galaxy?

CARTWHEEL

Gal, I don't put weight or stress on myself. Y'all are the morbidly spiral Galaxies.



(*ANDROMEDA points to TRIANGULUM.*)

ANDROMEDA

Least you're not a two-dimensional square, like this Galaxy.

TRIANGULUM

I'll run faster than light circles around you, Galaxies.

(*Tossing the whoopie cushion at WHIRLPOOL.*)

(*In their seats, CARTWHEEL and WHIRLPOOL demonstrate defensive stances. They bicker.*)

MILKY WAY

(*Mouthful of nuclear pasta.*)

Kau tau to you, Ellipses.

TRIANGULUM

CARTWHEEL

WHIRLPOOL

Watch your worm hole, you quasi-Galaxy. You are barred.

SINGULARITY

Oneness, clusters of stars! Your hearts are all vigorous.

(*Pinching MILKY WAY's cheek. This shows that MILKY WAY is SINGULARITY's favorite child.*)

Always, full of grace.

(*Preparing to pray. They place a hand on their chest. They shape that hand as though it is holding a heart. Their other hand sits flatly under their hearty hand.*)

Let us save space.

(*The nearby GALAXIES pray with SINGULARITY.*)



2. CRUNCH

SINGULARITY

FEED THAT HOLE IN YOUR HEART.

GIVE INTO INTERNAL DARKNESS.

SHED OUR LIGHT FOR NO ONE.

AS IT'S CRUNCH TIME, GALAXIES.

IN BLACK HOLES, DWELL WISDOM.

FED BY THE SPRINKLES OF STARDUST.

CRUSH THEIR DREAMS IN YOUR PALM.

IT IS CRUNCH TIME, MY BABIES.

GALAXIES not JD

CONSUME STAR SYSTEMS.

CONSUME WORLDS THAT TEEM.

CONSUMED BY THOUGHTS OF FAMILY. FAMILY...

SINGULARITY

STRING BY STRING IN THEORY.

AND FABRIC BY SPACETIME FABRIC.

KEEP OUR LOVE IN OUR HOLES / AS A WHOLE.

IT IS CRUNCH TIME, WE BELIEVE.

TRIANGULUM

IT IS CRUNCH TIME, SINGULARITY.

WHIRLPOOL

IT IS CRUNCH TIME, SINGULARITY.

CARTWHEEL

IT IS CRUNCH TIME, SINGULARITY.

**ANDROMEDA**

IT IS CRUNCH TIME, SINGULARITY.

MILKY WAY

IT IS CRUNCH TIME, NOMY SING.

SINGULARITY

IT IS CRUNCH TIME, JD?
SPT0615-JD?

[End of "Crunch."]

*(GRAVITY splits from the TIDALS. They stroll
to JD, to be their canine companion.)*

3. CUTTING EDGE**JD**

NOT THE TIME
TO PUSH ME OVER THE EDGE...

(GRAVITY places their paw on JD's monocular.)

CUT INTO MY—
PUSH ME OVER THE EDGE OF THE...

(GRAVITY turns JD's head to the table.)

CENTER WITH OUR
RELATIVES.
OUR TIDAL DOGS.

**JD (cont.)**

GRAVITY,
ALWAYS GROUNDING ME.

(*Nearing the edge of the home.*)

YOU SEE.
I GO OFF ON A TANGENT.

WHERE THE CUTTING EDGE WILL BE...

WHERE THE CURVATURE CONCEALS ALL WORLDS LEADING INTO
KINSHIP.
SAIL OUT OF THIS ELLIPSE.

WHERE THE ASTRAL BEACH WILL MEET AN OCEAN FULL OF
CHORAL REEFS.
SEA WITH OTHER *ELLIPSES*.

(*Drawing the attention of other GALAXIES
with the divisive term: "ellipses."*)

WHY IS THIS CIRCLE LACKING THE CURIOSITY IN ALL?
STUCK IN THIS HERE, GALA.

WHY ARE THESE OVALS BENT ON SEEING NOTHING IN MYSTERY?
LOOK BEYOND THESE GALAXIES.

GALAXIES not JD

CUT AWAY FROM THE EDGE...

JD

WHY DON'T YOU GO OFF?
ALL YOUR FIGHTS HAVE DRIVEN A WEDGE.
PLEASE LET ME BE AT PEACE BY THE EDGE.
GO BACK AND CIRCUMVENT.
I'LL JUST BE OUT ON A TANGENT—

GALAXIES not JD

SPT0615-JD...

**GALAXIES not JD (cont.)**

AS WE ARE JUST SAYING BEFORE YOU CUT US OFF.
NOTHING'S CUTTING OUTTA THE EDGE.
NO ONE'S GOING OVER THE EDGE.
JOIN US FOR CRUNCH.

(SINGULARITY makes the GALAXIES hear JD out.)

JD

APPARENTLY, I HAVEN'T MADE MYSELF CLEAR.
CUTTING MY EDGES MAKE MYSELF APPARENT AS YOU...
AND SHEDS MY LIGHT UPON A LIGHTLESS GALAXY.
I WILL MAKE LIGHT OF A PROMISING FAMILY.

(ABELL looms in the audience.)

(SINGULARITY allows for the GALAXIES to rebuke JD.)

GALAXIES not JD

SPT0615. SIBLING.
NO NEED TO BE APPARENT AS SINGULARITY.
NO EDGE TO CUT AND SO NO LIGHT SHED.
PLEASE DO NOT CUT US OUTTA YOUR LIFE.
JOIN US FOR CRUNCH.

(JD considers joining the family at the table but longs for the outside anomaly.)

JD

I WANT TO BE IN A WARM SPACE WHERE ELLIPSES ARE ABELL...
TO MEET A NICE GALAXY...

(GRAVITY encouragingly grounds JD.)

**JD**

JD...

GALAXIEs not JDSPT0615-
JADED-**JD**

GOES OFF OF THE TANGENT!

ALL MY COSMIC POEMS MUST REACH TO THE ENDS OF THIS
EPIC TALE.

OUR AUDACIOUS VERSE.

THERE MIGHT BE A FRIEND THAT WILL FOLLOW IN MY
LYRICAL TRAILS
TO THE EDGE OF THE UNIVERSE...

YOU'LL KNOW.

I'LL BE CUTTING TO THE EDGE.

*[End of "Cutting Edge."]***GRAVITY**

Force!

*(JD embraces GRAVITY.)***JD**

Grounded, you're that friend. Gravity...

*(SINGULARITY accompanies JD.)***SINGULARITY**

I will spare a millennium to listen to your verse, JD. You are apparent to me.

JD

I love you too, Singularity...

**SINGULARITY**

Your love doesn't seem crystal clear. What speaks to your heart?

JD

Abell.

SINGULARITY

Able? Who's able to speak to your heart?

JD

You...

SINGULARITY

'Niverse? Our Universe?

JD

Speak down to me. And our Universe no longer speaks for me.

SINGULARITY

And that Edge speaks to your Center?

JD

The Edge speaks.

SINGULARITY

The eyes aren't enough for you? I'll be taking back my scope.

(Taking the monocular from JD. They point towards the table.)

Set your sights. We have nice Galaxies on this Ellipse.

**JD**

I'm done with this Ellipse. It's time I jump off ours and move onto another.

(*SINGULARITY hums.*)

SINGULARITY

You're about to make me cry with that nonsense. Has the Edge wept?

(*JD shakes their head.*)

Then the Edge isn't cutting it... What is the Edge whispering to you, child?

JD

That I'm no longer a child and my center no longer cares.

SINGULARITY

Baby... You dare speak about your center that way?

JD

I'm not a baby anymore. As your first child, there's no longer a way to this center in our Ellipse. It's time I formed my own center.

SINGULARITY

Why would you need your own center?

JD

The same could be asked for you.

(*SINGULARITY grabs ahold of JD. They pull JD to the table.*)

SINGULARITY

I need you all, as family would.

(*GRAVITY pulls back JD.*)

JD

Well, the same answer for me.

SINGULARITY

The family dog?

JD

Gravity grounds me to the reality that lies below us. And they treat each millennium like it's the eye of something big.

TRIANGULUM

There's nothing big out there. There's nothing even in here.

(*Pointing at their heart.*)

SINGULARITY

(*Addressing GRAVITY.*)

I don't feed you so you could so obtuse like Triangulum.

JD

Why don't you acutely speak to us Galaxies and straight to the point like you do with our Tidals?

**SINGULARITY**

I thought my *point* doesn't speak to you?

JD

The center never listens.

SINGULARITY

I didn't save space so that our center can't listen to your center.

WHIRLPOOL

Perhaps, your centers seem to have some slight miscommunication.

(*GRAVITY taps the rug.*)

GRAVITY

Force.

SINGULARITY

No center of Gravity of mine is going to place my Galaxy out of this space. Not if the center has anything to say about it. Whirlpool. Cartwheel. Leash our Tidals...

(*CARTWHEEL and WHIRLPOOL cluster GRAVITY and the TIDALS. They escort them out.*)

Your center is not going anywhere.

JD

Our...?

**SINGULARITY**

By the our— By the time you grow into your center like I have,
and dare my center say the impossible: *have centers of your own...*

(*JD seems flustered.*)

The Edge would no longer be central. For now, the Edge isn't going anywhere either.

4. FIXED STARS**SINGULARITY**

Until then, supermassive hearts have no say. Until then, I'll do what Gravity has profoundly failed to do for my precious Galaxy. To start...

YOU'LL BE FIXED, AWAY FROM THE EDGE...

(*Pointing to their offstage bedroom.*)

YOU'RE GROUNDED, TO YOUR CENTER...

YOU'RE SO DAFT! LISTEN TO ME...

YOU'LL BE DEAF. NOTHING IS SOUND.

STAY PUT...

JD

Your fixation on fear of the unknown is just a whisper. And if I'm still a child to you... *I can't hear you! I can't hear you!*

(*Mockingly plugging their ears.*)

SINGULARITY

THINK OF THE FIXED STARS.

LEARN FROM THE FIXED STARS.

STAY LIKE THE FIXED STARS...

Fix yourself.



(*JD heads to the offstage bedroom.*)

SINGULARITY (cont.)

I WON'T BE FIXED TO...
I CAN'T RETURN TO—
I WILL NOT GO ON...

A tangent and neither can you.

WHIRLPOOL

Return to...?

(*JD briefly peeks out to overhear WHIRLPOOL.*)

SINGULARITY

And all of you. Fix yourselves.

(*TRIANGULUM routinely clusters the remaining GALAXIES away into their offstage bedroom.*)

FIXED STARS FOR A CHANGE.

(*Departing.*)

[End of "Fixed Stars."]

(*TRIANGULUM brings out JD.*)

TRIANGULUM

Do you have a millennium?

JD

What are you going to mill about now?

**TRIANGULUM**

Mill? I triangulate.

JD

It's rather late to try my patience...

TRIANGULUM

We've been here for what? An eternity?

JD

Seems like it. Well, really it.

TRIANGULUM

What do you see in your future?

JD

I see everything. I don't see this dysfunctional family.

TRIANGULUM

Our family works together. More like you're the dysfunctional anomaly. Well, everything now is the way you move and stand. For the way things are. I understand that you may be the oldest sibling in this household and that after a while, you start to see other things. Where do you see yourself in the future?

JD

With Abell.

TRIANGULUM

Who's able? Where do you able to see yourself in the future?

**JD**

Amongst everything. Every moment here is nothing.

TRIANGULUM

Nothing? Well, you're an anomaly if you feel that way about family.

JD

Every millennium, Cartwheel, Whirlpool, Andromeda, Milky Way, and you tell me there is nothing out there.

(Fondly.)

I believe in *nothing*.

TRIANGULUM

And every morn, you are here believing...

JD

And every dawn, we are there dreaming.

(Looking at their offstage bedroom.)

TRIANGULUM

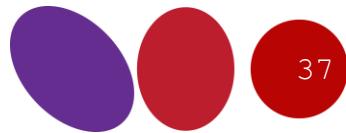
In this millennium and age, I'm just going to stand by and be as dense as dark matter.

JD

So, you have no density?

TRIANGULUM

Non-baryonic, for you.

**JD**

Ironic for someone who constantly box themself in.

TRIANGULUM

Triangular- Hmm, you're particular. Quirk.

JD

Familiarity feels the up and down. Familiarity sees the top and bottom. Quite charming me, stranger.

TRIANGULUM

Even as a *stranger* and *dark matter*, I will not let anything, whether familiar or unfamiliar, get passed me and fall off the Edge of the Universe...

JD

For peek's sake, I'm not going over the Edge.

TRIANGULUM

For the sake of peak, we're already on top.

JD

How would you know we're not upside down and under a valley?

(*TRIANGULUM inadvertently steps on the rug.*)

TRIANGULUM

There is no value to what is hidden underneath this Ellipse.

JD

Quick to judge but not fastidious.

**TRIANGULUM**

You've gradually milled about and haven't reached a conclusion.

JD

Something is hidden. Some things are underneath.

TRIANGULUM

I've grazed triangulation and reached a continuity. Hidden are no things. Underneath is nothing.

JD

Nothing is everything to me.

TRIANGULUM

If only family is nothing to you! You outlier!

(Calming down.)

Sorry for turning your— Our Universe upside down. JD, I'm just like you... *Not a square*. Also, far out. But again, outlier... I am seen. While you, you need this, to feel seen. To see *everything*.

(Pulling out a monocular.)

(JD tries to take the monocular.)

(TRIANGULUM pockets the monocular.)

JD

Triangulum, what do you need?

TRIANGULUM

I need you to treat family... Like nothing.

5. ANOMALY IS EVERYTHING

TRIANGULUM

FAMILY IS...
 FAMILY IS...?
 FAMILY IS...
 FAMILY ISN'T...
 FAMILY IS NOT...

(JD grows saddened.)

ANOMALY.

FAMILY IS EVERYTHING YOU KNOW.
 FAMILY IS EVERYTHING, YOU KNOW?
 FAMILY IS EVERYTHING. YOU KNOW
 NOT WHAT IS EVERYTHING.
 NO SUCH THING
 THAT IS JUST
 FAMILIARITY.

[The spotlight lands on JD.]

ANOMALY IS YOUR THING,
 FROM THE WAY YOU MOVED TO THE WAY YOU UNDERSTOOD.
 ANOMALY IS OUR THING,
 LIKE THIS DOME HOME YOU WANT TO LEAVE AND YET LIVED.

(Bringing out the snow globe. They smirk.)

REALLY, FAMILY IS EVERYTHING TO US.
 FAMILY IS EVERYTHING.

JD

WE KNOW.

**TRIANGULUM**

FAMILY'S UNIVERSAL. WE KNOW
THAT YOU FEEL LIKE NOTHING.
WELL, THE THING
IS THAT WE'RE ALL HOMES TO
FAMILIES.

(Shaking the snow globe. They set down the snow globe on the table.)

[A galaxy may project into their home.]

(TRIANGULUM brings out a stellar ball.)

ANOMALY IS EVERY CELL,
FROM THE PLANETS TO THE COMETS IN STAR SYSTEMS.

(Stowing away the ball. They direct to the projected galaxy and/or their body parts.)

ANOMALY IS EVERY VEIN,
WITH ITS INTERGALACTIC SUPERHIGHWAY SYSTEMS.
ANOMALY IS OUR HEARTS.
BLACK HOLES ROOTED IN US, WHILE YOURS JUST STEMS.

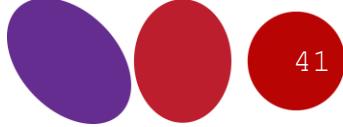
(JD feels trapped in the system.)

[The projected galaxy fades away.]

(Returning to the premise. They slowly and gloomily turn away from JD.)

AGAIN, ANOMALY IN EVERY THOUGHT,
FROM YOUR VIEWS THAT SHIFT TO YOUR POINTS WITH NO
ROUND TRIPS.
ANOMALY IN EVERY SPACE,
LIKE THIS CENTER YOU NEED TO FEEL, YET BELIEVED.

(Tapping their heart or unintentionally motioning towards the table.)



(*JD somberly sits at the table. They place two fists next to the snow globe to allude to an ellipsis...*)

TRIANGULUM (cont.)

ANOMALY'S IN EVERYONE,
INCLUDING US BUT ESPECIALLY YOU YOU YOU.

(*Turning to JD.*)

JD?

(*Poignantly looking upon JD. They encouragingly join JD at the table. They sit on the whoopie cushion.*)

(*CARTWHEEL and WHIRLPOOL distantly laugh.*)

(*TRIANGULUM appears flustered. They shift to delight. They pull out the whoopie cushion.*)

ANOMALIES ARE GAS GIANTS!

(*Stowing away the whoopie cushion. They grab the snow globe. They take JD to the rug.*)

ANOMALY'S OUR SPACETIME!

ANOMALY IS EVERYTHING.

(*Worriedly looking out.*)

(*ABELL looms in the audience.*)

(*Earnestly holding onto JD.*)

NOTHING IS ANOMALY LIKE FAMILY.

(*Handing the snow globe to JD. They head off to bed with the monocular.*)

[End of "Anomaly is Everything."]

6. ZILCH**JD**

NOTHING, NOTHING, NOTHING.
 NOTHING? NOTHING? NOTHING?
 NOTHING, NOTHING, NOTHING.
 ZILCH. NOTHING.

(Holding the snow globe up to their eye.)

RETURN, RETURN, RETURN.
 TO WHERE? TO WHERE? TO WHERE?
 SOMETHING, SOMETHING, SOMETHING.
 ZILCH. SOME THINGS

ARE FAMILIAR.
 OUR NOMY'S/MOTHER'S/FATHER'S A LIAR.
 SINGULAR—

(Placing the snow globe on the rug.)

UNDERNEATH...

(Orbiting the snow globe.)

I AM ZILCH.

WHO'S FAMILIAR
 BEING AN OUTLIER.
 IT IS ME,
 WHOSE FAMILY IS
 SOMETHING OLD, OUTDATED.
 EXCEPT ME.

(Kicking up the rug over the snow globe.)

UNDERNEATH...

*(Discovering the hidden BB Taser underneath.
 They warily kneel to pick up the BB Taser.)*

THERE IS ZILCH?

(The TIDALs remain absent.)

**TIDALS**

(*Terrified.*)

Fall...

JD

Matters beyond assimilation? Why are you here?

(*Reading the inscriptions on the BB Taser.*)

I FOUND A
BB... BB TASER?

(*Igniting the BB Taser, letting the static ripple through the soundscape.*)

Forces beyond imagination? Where does it go from there?

I FEEL THE
BBT... BIG BANG THEORY.

Light. Illuminating...

[End of "Zilch."]

(*SINGULARITY remains absent.*)

SINGULARITY

Zilch. Shocking...

(*JD stows away the BB Taser in their clothes. They swiftly unroll the rug back to its initial position, with the snow globe on it.*)

(*SINGULARITY enters. They bow.*)

To see you wide and first awake. Declinations, JD.

(*JD bows.*)

**JD**

Declinations, nomy/mother/father. You're always looming over us... You poured the light out of your heart to raise me and my siblings. Lights that last eternities. All the light that this universe holds, and more. I was never enlightened to why that's the nature of your heart. We call our hearts "supermassive black holes" for a reason. A dark void that won't let light escape unless there's another matter, bigger than ourselves. Like us to you. You let your light escape for us. May you shed some light—

SINGULARITY

What is there left to shed light on...? What is the matter? *Who?*

JD

Yourself...

SINGULARITY

Stop making light...

JD

Light isn't made. It's passed down. And making light of what?

SINGULARITY

My eternity.

JD

What was eternity like before me and my sibling's eternities?

SINGULARITY

(Irritably.)

Oh, the luminosity...

**JD**

Where did you get it? All that light. For me as a Galaxy, you have provided that light. That also means, you inherited them...?

SINGULARITY

Speak physics, SPT0615-JD.

JD

Did this light get passed down from your parent?

SINGULARITY

My heartless parents...

JD

Parents? You had multiple parents? Can I meet my grandparents...?

SINGULARITY

Didn't you hear me? They're heartless. And every Galaxy in this Universe has a heart. It is not possible for them to be here. Indeed, having more than one parent was supermassive and added up... To what I currently sacrifice as Singularity. When I was in their Universe, each of their love was fractional. There is everything to be proud of when raising you and your five siblings as a single parent. My love is forever wholesome.

JD

You were born and raised in another Universe...? Wait, you're saying that there are indeed other Galaxies out there?

SINGULARITY

There is nothing out there. Nothing outside of this home.

**JD**

I once saw nothing out there with my younger siblings. But as I got older, I truly knew that nothing is in here.

SINGULARITY

Are you saying that family means nothing to you?

JD

Yes. And I hope someone like me feels that way about the Center of the Universe when I have a universe of my own.

SINGULARITY

Oh no. The only center of any universe is here, with me and my six clusters of stars. You sure are an anomaly. My anomaly.

JD

I'm not sure if I have maturity. I do have your responsibility. Of letting some of my light escape... My heart.

(SINGULARITY pulls out a monocular and hands it to JD. They point outside.)

SINGULARITY

You are old enough to respond to a heartless and lightless world beyond the Edge of the Universe, by not making light of it.

JD

You've raised my supermassive heart by pouring light into it. My lighty heart is ready to be shared with the heartless.

SINGULARITY

The point of my hearty outpouring is for you to forever lighten up. Not to ever lighten down. You are never getting passed me.



JD

The point of your heart is inherently mine. Like you, nomy/mother/father, before my heart outgrew yours, the purpose of life is to pour my heart out to someone with less heart. The only way I can see the light is if another Galaxy lightens up. If my heart is pointless, then your heart is pointless, too. Singularity... Nothing gets passed you... Not even light.

7. LUMINOUS

SINGULARITY

YOU REALLY SHOULD LIGHTEN UP.
DO IT FOR YOUR SINCERITY.
FORGIVE ME, SINCERELY.
SINGLENESS ILLUMINATES...

(Noticing the snow globe on the rug. They go to pick up the snow globe.)

(JD blocks SINGULARITY's path, so they do not discover that the Big Bang Taser was found.)

(SINGULARITY drags JD to the table.)

WHY DON'T YOU ENLIGHTEN US?
SHED SOME LIGHT TO YOUR FAMILY.
FORGET ME, SINGULARITY.
LET OUR CENTERS SET US STRAIGHT...

(The other GALAXIES enter.)

(SINGULARITY aligns each GALAXY.)

YOU BRIGHTEN MY ETERNITY.
LUMINOUS.
MY PARENTS NO LONGER LOOM.



SINGULARITY (cont.)

THEY CAN'T HOLD ANY CANDLE,
AND WOULD READILY CAST AWAY YOU AND US.

LUMINOUS.

TENDERNESS FOREVER LOOMS.

I HOLD YOUR FEATS TO THE FIRE.

LOOKING FORWARD TO WHAT COMES FOR YOU AND US.

(Lovingly pinching MILKY WAY. They try to align JD.)

WHAT IS ILLUMINATING ARE...

(Addressing each GALAXY except JD.)

Us. And us. And us. And us. And us. At the center of us all is heavy. What looms in us is light. Take it in. Our black holes.

[End of "Luminous."]

(GRAVITY and the TIDALS enter and gather around.)

(SINGULARITY focuses on JD.)

And you... At the center of yours, is supermassive.

*(JD scopes out the Edge of the Universe.
They longingly see ABELL in the audience.)*

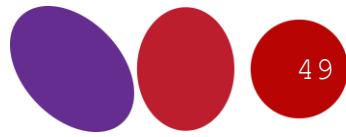
JD

My heart cannot choose who to take in. However, my heart can choose who to take out.

SINGULARITY

Well taken. There's nothing to take out, but family.

(JD does not take it lightly.)



8. BIG BANG

SINGULARITY

YOU ARE A BIG...

(JD draws out the Big Bang Taser. They shoot SINGULARITY in the face.)

(SINGULARITY gets electrocuted. They melodically shriek and jerk in place.)

MISTAKEEEEE! AKE! AKE! AKE! AKE.

[The light fluctuates within the home. Appliances may short circuit and spark.]

TIDALs

(Repeating.)

BIG BIG BIG BIG BIG!

(JD regretfully drops the Big Bang Taser.)

(WHIRLPOOL kicks away the Big Bang Taser.)

(SINGULARITY grows physically vegetative.)

SINGULARITY

ACHE... ELLIPSES...

(Elliptically squinting.)

BIG BANG...

(Abruptly slamming their face onto the table. They fall into lifelessness.)

**TIDALS**

FALL!

(Repeating.)

BIG BIG BIG BIG BIG. BANG!

[The snow globe explodes.]

[The light suddenly fills the stage. The side curtains open to reveal what's upstage.]

[It's the beginning of the Universe as we know it.]

(GRAVITY makes JD turn to what is outside.)

(JD gently walks to the edge of the home to look out, shifting from grief to wonder. They are surprised that they are now able to take a step out onto the stage.)

(GRAVITY appears to pick up a sphere by SINGULARITY's feet.)

(The GALAXIES at the table look upon SINGULARITY.)

TRIANGULUM

S P T ZER— SIX... WHY...?

CARTWHEEL

IT HAD TO BE YOU?

**WHIRLPOOL**

WHY WOULD YOU RISK THIS UNI-

(MILKY WAY weeps on SINGULARITY.)

ANDROMEDA

OUR UNIVERSE HAS END...

(JD approaches their sibling GALAXIES.)

GALAXIES not JD

DEAD, YOU ARE.
BIGGEST FLAW.
BIGGER FEARS.
BIG BRAINED FOOL.
BIT THE HAND THAT FEEDS.
BEAT THE HEART THAT FELT TO DEATH.

JD

MY SUPERMASSIVE HEART GOES OUT TO YOU ALL, FAMILY.
BUT MY SUPERMASSIVE HEART GOES OUT FOR ME AND GRAVITY.
DECLINATIONS!

*(GRAVITY grabs a knapsack full of balls,
embodying stars. They grab JD and run out.)*

*(TRIANGULUM, ANDROMEDA, WHIRLPOOL, and
CARTWHEEL step away from SINGULARITY to
watch as the Universe unravels.)*

*(MILKY WAY mournfully wraps themself around
the lifeless SINGULARITY.)*



(*JD and GRAVITY run in place. They stop in their tracks when they notice their lack of progress.*)

JD

The Edge of the Universe? Where is the Edge?

GRAVITY

Force!

JD

It's further away?

(*Taking a step.*)

[*The light expands further out. The home moves upstage in between the back curtains.*]

It's getting further away.

(*GRAVITY claws at the ground.*)

The fabric of spacetime is fabric, after all. And we're rolling it out, like our rug.

(*Leveling with GRAVITY.*)

We're going to go off on a tangent... For all eternity.

(*The TIDALs briefly step out of the home.*)

(*JD points towards the TIDALs in the home.*)

For the rest of spacetime.



(*GRAVITY motions for the TIDALS to join.*)

(*The TIDALS are unwilling.*)

GRAVITY

Zenith...

(*Deciding to move on. They address JD.*)

Force!

(*JD stands, grateful to have a travel buddy.*)

JD

This is the beginning of a beautiful Universe.

(*Leaving with GRAVITY on a journey.*)

GALAXIEs not JD

DID REAL DAMAGE...
A BANG-UP JOB!

YOU ARE MAKING
A BIG MISTAKE!

(*The TIDALS disappear into the home.*)

(*TRIANGULUM grieves at the sight of the shattered snow globe. They hold its base, before stowing it away.*)

TRIANGULUM

ALL OUR HEARTS HAVE GONE
OUT WITH THE
BIG BANG...

[End of "Big Bang."]



(*The GALAXIES lay SINGULARITY on the table.*)

GALAXIES

It is the end times, Singularity.

(*Bowing to SINGULARITY.*)

Declinations.

MILKY WAY

Is Singularity away...?

ANDROMEDA

With the expanding Universe, yes.

[*Time somehow extensively passes.*]

TRIANGULUM

Along the expanding Universe, JD is not.

CARTWHEEL

You got to be kidding me. SPT0615-JD should stay away... It's not passed time.

WHIRLPOOL

Triangulum...? Well Cartwheel, time has long passed.

TRIANGULUM

Family is everything.

GALAXIES not TRIANGULUM

We know...

**CARTWHEEL**

JD is nothing.

TRIANGULUM

No. JD is an anomaly. And will always be an anomaly, everywhere they go. They are everything in this nothingness.

MILKY WAY

Gravity...?

WHIRLPOOL

Ain't knowing what that tidal dog did to convince JD to pull out that Big Bang Taser and tase our guardian in the face but-

CARTWHEEL

You knew what that thing was?

WHIRLPOOL

Singularity always pulls out the Big Bang Taser to make theories come to life whenever they meditate. It sends electricity through the chakras of our spacetime.

ANDROMEDA

It certainly shocked their chakras alright...

TRIANGULUM

At least it's not in the hands of evil...

MILKY WAY

My hands are good!



(*MILKY WAY picks up the Big Bang Taser.*)

(*The GALAXIES distant from MILKY WAY.*)

(*CARTWHEEL clumsily cartwheels away.*)

CARTWHEEL

There are more than enough Big Bangs!

WHIRLPOOL

You're losing your edge.

CARTWHEEL

I've lost my ring.

(*MILKY WAY places the Big Bang Taser in SINGULARITY's unmoving hand.*)

MILKY WAY

Nomy's/Mama's/Papa's hand is good, too...

ANDROMEDA

Why did Singularity hide such a treasure?

TRIANGULUM

Where did Singularity dig this up from?

(*WHIRLPOOL steps onto the rug. They sit.*)

WHIRLPOOL

I don't know. But we should meditate on it.

**CARTWHEEL**

Meditation on...?

WHIRLPOOL

Equations.

CARTWHEEL

That doesn't seem formulaic.

TRIANGULUM

Perfect. You two can cook up some formulas, while Andromeda and I are going to undo the Big Bang.

ANDROMEDA

We are what?

MILKY WAY

May I undo Big Bang, too?

TRIANGULUM

Cartwheel. Whirlpool. You're babysitting Milky Way.

CARTWHEEL

Gal... No one has time for this Barred Galaxy.

ANDROMEDA

Shut ye worm hole, Ring Galaxy.

**TRIANGULUM**

You two are going to make sure that our little sibling doesn't get in the way.

ANDROMEDA

You are such a square, Triangulum. Milky Way is how we move forward.

TRIANGULUM

Excuse me but this square picked you to be their hiking buddy.

MILKY WAY

Milky Way no get in the way... Milky Way no get in the way...

WHIRLPOOL

By the way, how long will it take for you to get back?

TRIANGULUM

A few million years...?

ANDROMEDA

Several dozens of...?

TRIANGULUM

We'll play it safe and say that it'll be a hundred.

ANDROMEDA

Safer to be ready for no more than a nine-digit number.



(*WHIRLPOOL points to the Edge.*)

WHIRLPOOL

Really? Is there an Edge in sight?

ANDROMEDA

You got a point there.

CARTWHEEL

The point is here. We'll accomplish this errand of thwarting the Big Bang in no time. While you are the two who have mouths to feed.

TRIANGULUM

You have wormholes. I'll give you that.

CARTWHEEL

We're brighter...

WHIRLPOOL

We're stronger...

CARTWHEEL

WHIRLPOOL

Than you two.

TRIANGULUM

Says who?

ANDROMEDA

The Ring Galaxy with their blue stars and the Grand Design Spiral Galaxy with their spiral arms...



(*TRIANGULUM sits on the whoopie cushion on the seat at the table.*)

(*CARTWHEEL and WHIRLPOOL distractedly bursts into laughter.*)

(*TRIANGULUM decisively stands up.*)

TRIANGULUM

And yet, you're as mature as a gas giant. There's not a millennium to spare.

(*Dragging ANDROMEDA away.*)

ANDROMEDA

We actually wasted a hundred and eighty millennia arguing. Are we really going to spend our lives getting JD back...

TRIANGULUM

Once we get JD, who is everything to me, home, we'll have everything waiting for us back home.

ANDROMEDA

What does that say about me?

TRIANGULUM

I could use a little music on this journey. Melody is every-

ANDROMEDA

Ye know.

(*TRIANGULUM and ANDROMEDA depart.*)



(CARTWHEEL and WHIRLPOOL finally stop laughing, realizing they've been bamboozled.)

MILKY WAY

Do you wanna play Tardigrades and Elevators with me?

(CARTWHEEL points to the table.)

CARTWHEEL

Look! Nomy/Mommy/Daddy has a warm plate of nuclear pasta!

(MILKY WAY does not turn around.)

MILKY WAY

Yeah... Nomy/Mommy/Daddy is cooking nuclear pasta in my heart...

(CARTWHEEL grabs ahold of WHIRLPOOL. They run off with WHIRLPOOL.)

CARTWHEEL

Oh the luminosity...

WHIRLPOOL

In general, this is specially unrelativistic what you are doing...

CARTWHEEL

What do you know about special relativity? This is what's best for our special little relative. I'll show Triangulum and Andromeda that we're the galactic duos! We'll undo the Big Bang before them!

WHIRLPOOL

Time will tell...



(*CARTWHEEL and WHIRLPOOL depart.*)

(*CARTWHEEL briefly sticks their head out.*)

CARTWHEEL

Don't forget to feed the tidal forces!

(*MILKY WAY goes out and grabs dishes. They place many on the ground.*)

(*The TIDALS come out to feast.*)

(*The SOLAR SYSTEM are voices in MILKY WAY's head.*)

SOLAR SYSTEM

Ooh. Gravity might also want a snack...

(*MILKY WAY grabs a tiny dish.*)

MILKY WAY

Oh right. Thank you, imaginary friends!

SOLAR SYSTEM

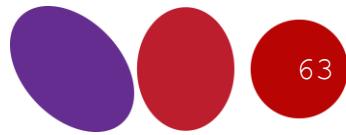
Planetary friends, Milky Way. Planetary friends.

(*MILKY WAY departs away from the safety of the Ellipse.*)

MILKY WAY

Plant friends. I can't wait to see what JD is up to in this... U-ni-Uh. Verse.

[*The home stows away.*]



9. VERSE (solo-in-progress)

[*The Fabric of Spacetime*]

[*Field equations scatter all over the space.*]

(*JD and GRAVITY blissfully skip in. They mix and match the constants of equations.*)

JD

LETTERS, NUMERIALS, FACTORIALS.
IT IS ALL THANKS TO A FACTOR:
THIS IS THE BEGINNING OF THE UNIVERSE.
THAT'S THE START OF OUR VERSE!

NUMBERS, ALPHABETS, EPIC POEMS.
REHEARSE STANZAS AS ITS ACTORS.
STAGES OF THE BIG BANG FORM HYPERBOLAS.
ONLY HYPERBOLE!

STORIES, EQUATIONS, ALGORITHMS.
IT IS TO BASK IN ITS GLORY.
THIS IS THE BEGINNING OF THE UNIVERSE.
THAT'S THE START OF OUR VERSE!

(*GRAVITY puts together F A M.*)

(*JD stops in their tracks.*)

MUSIC, DISCORDANCE, FAMILIAR.
CROSSING THE LINE FULL OF SCEPTICS.
SHOOTING NOMY'S/MAMA'S/PAPA'S FACE IS A TURN FOR THE WORSE...
THAT'S THE STING OF REVERSE...

(*GRAVITY fixes and turns their equation into Newton's second law of motion: F = MA.*)

**GRAVITY**

Force?

(*JD smiles.*)

(*GRAVITY gathers a V, an =, an H, a tiny O,
and a D. They put together $v = H_0D$.*)

JD

DISTANCE VERSIFIES VELOCITY.
BREVITY OF HUBBLE'S CONSTANT.
THIS IS THE CREATION OF THE UNIVERSE.
JUST THE START OF OUR VERSE!

[End of "Verse."]

GRAVITY

Force!

(*JD and GRAVITY skip out, faster than ever.*)

(*TRIANGULUM and ANDROMEDA stroll in.*)

(*ANDROMEDA mumbles the upcoming space shanty,
"Globular." They take out their monocular.
They scope out towards the Center.*)

TRIANGULUM

Your heart's in the wrong space. You're facing the wrong way... Do you see the Edge...? Of the Universe?

**ANDROMEDA**

Ye just want to know how far we've come...

TRIANGULUM

I want to know how far we'll be coming. The Center of our Universe should not be in the scope of things. Family may be everything to us but—

ANDROMEDA

There's nothing.

TRIANGULUM

Excuse me?

ANDROMEDA

Milky Way is away!

TRIANGULUM

Away? Are they getting lost in the Water Bears and Elevators board game again?

ANDROMEDA

No one is at the Ellipse!

TRIANGULUM

Those galactic idiots... This voyage is in vain.

ANDROMEDA

We're going to set our course back to our home base. Please try not to gamma-ray burst a vein.



(*TRIANGULUM takes out the snow globe's base.*)

ANDROMEDA (cont.)

Triangulum... Triangulate.

TRIANGULUM

JD... It's late out here.

ANDROMEDA

JD can wait...

TRIANGULUM

That was the problem... They waited too long.

ANDROMEDA

I take it back. They're not waiting. The Universe is their oyster. Let's find Milky Way. For our pearl, Singularity.

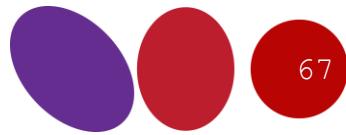
TRIANGULUM

Oh to let Singularity's favorite child get in harm's way... Cartwheel and Whirlpool are going to meet my spiral arms.

(*ANDROMEDA smirks at TRIANGULUM.*)

My 30,000-light-year radius packs a punch, okay? Anyways, if their attention spans are this short for Milky Way, their attention spans will also be short on their way. I hope the fabric of spacetime tells them to return home.

(*TRIANGULUM and ANDROMEDA head back.*)



(*WHIRLPOOL meditatively spirals in.*)

(*CARTWHEEL clumsily lands their cartwheel.*)

CARTWHEEL

My time is...

WHIRLPOOL

Time is what?

CARTWHEEL

Up...

WHIRLPOOL

In the air?

CARTWHEEL

In a vacuum... Yes, in the air!

WHIRLPOOL

Why're you full of uncertainty?

CARTWHEEL

Time is so slow. And it gets slower. Are we ever going to reach the Edge of the Universe? I'm uncertain of where we're going.

(*WHIRLPOOL sits and prepares to meditate.*)

WHIRLPOOL

You're certain 'nough that time is closer to the end than the start. Me too. Time's gonna end.

**CARTWHEEL**

Good.

WHIRLPOOL

Hmm?

CARTWHEEL

I don't want to be here forever.

WHIRLPOOL

So let's go home...

CARTWHEEL

Gal... For the billionth time, we're not going home.

WHIRLPOOL

And now we have a billion less time without a shelter over our heads. A billion less time without our family.

CARTWHEEL

We need to spend a trillion more years to find the Edge of our Universe and roll it back. Can you do that?

WHIRLPOOL

I ain't spending another millennium without Milky Way.

CARTWHEEL

You seemed fine with spending billions of years on this trek.

**WHIRLPOOL**

I made myself feel like only a millennium has gone by. My position to go home ain't budging, millennium or million.

CARTWHEEL

Well, you just sit around all year and I be standing here plotting our next move. I say, we keep moving.

WHIRLPOOL

Cartwheel, you be the steering wheel of this ship.

CARTWHEEL

Whirlpool, you're a whirlpool in this sea.

WHIRLPOOL

I'm just sitting here tryna turn this ship around.

CARTWHEEL

We're not going home. Milky Way is preoccupied with our lifeless captain.

WHIRLPOOL

Singularity loves our little barred sibling. They may eye their spiral arms, but they care for our elliptical shapes. They won't be disappointed if we considered our own safety, ring sibling.

(CARTWHEEL failingly cartwheels.)

CARTWHEEL

Whatever's left of my ring... I'm not worried if we would be disappointing them... As for Milky Way, they're probably having a grand old time now.

**WHIRLPOOL**

Typical Ring Galaxy. Your spine is uptight. You ain't right. We wronged our little sibling by leaving them behind. What we're doing to Milky Way brings no honor to the Galaxy family.

CARTWHEEL

Don't remind me of dishonor.

WHIRLPOOL

What be your reason to ditch them? Time's missing in your equation. Time's up in the air, when it needa be solid in you.

CARTWHEEL

Letting them be home alone is the best thing we've done for that barred twerp. I learnt about time as much as you did on our travels. Their life goes by faster without us.

WHIRLPOOL

That's the problem... Life is short. Well, for them.

CARTWHEEL

Never mind what I said I learnt. I should focus on why you're once again going to meditate to that time whatever equation-

WHIRLPOOL

Time dilation? It's what Singularity did to pass time. They used to meditate 'bout formulas on our house rug. I be wondering what our nomy/mother/father was thinking about these simple concepts...

CARTWHEEL

You're becoming Singularity. Our black-hole parent. Our Bạch Hổ.

**WHIRLPOOL**

Tiger parent ain't who I am cause we're still cubs. Ain't a hole bigger in our hearts without our family. Our Bạch Hổ would eat us alive if we let Milky Way go through the nuclear leftovers.

CARTWHEEL

Let's keep going. We must undo the Big Bang. A welcome back will be the fruits of our labor.

WHIRLPOOL

Our quest ain't fruitful. Our Universe expands faster than we can ever outrun it.

CARTWHEEL

What makes you think that?

WHIRLPOOL

Dilation...

CARTWHEEL

Can you expand on that?

WHIRLPOOL

Dilation means to expand.

$$[\text{Pieces of } \Delta t = \frac{\Delta t_0}{\sqrt{1 - \frac{v^2}{c^2}}} \text{ loom in the space.}]$$

CARTWHEEL

Expansive. And your point is?



WHIRLPOOL

Our point's in the Center of the Universe. Home. We ain't there. We should think about it. We gotta go home.

CARTWHEEL

That's not the point of our duty. What should come first in mind is the Edge of the Universe. Not Milky Way or our Bạch Hổ.

WHIRLPOOL

Singularity ain't like a tiger parent any longer. They're pretty tranquilized. Home... I miss being a tiger cub in a well-kept zoo. Now, there's no better duty than for us to be Milky Way's keeper. We've got to take care of Milky Way.

CARTWHEEL

I'm not playing another Tardigrades and Elevators board game or reading another *Journey to the Cosmic* bedtime story to them...

WHIRLPOOL

You're bright. I wish I can read. Really though, can you calm down and listen to your own supermassive heart? Another million years out here is another millennium without our sibling. You'll get the point. There ain't a point in this chore. The point of time is that time ain't have bonus points. Time runs out...

(Calming down.)

I know what I just said was heavy. And weights on your shoulders make time go even slower. Just live in the millennium with me. Help me piece the time dilation equation. Enjoy the time we have together.

CARTWHEEL

Time's so special with you, relative. To me, times are heavy weights.

**WHIRLPOOL**

A little enlightenment ain't gonna hurt. Wait for the light.

CARTWHEEL

What's on your mind when you expand your mental universe?

WHIRLPOOL

Everything.

10. TIME IS RELATIVE (redoing)**CARTWHEEL**

SO, FAMILY COMES FIRST IN MIND?

(WHIRLPOOL meditates.)

WHIRLPOOL

T OVER SQUARE ROOT OF ONE MINUS VELOCITY
SQUARED DIVIDED
BY THE SPEED OF LIGHT SQUARED.

Live with me in the millennium.

(Tapping the ground.)

(CARTWHEEL sits and poorly meditates.)

CARTWHEEL

(Sentimentally.)

You have Singularity's chakras...

[Strobe of lights move fast near WHIRLPOOL while lights move slow near CARTWHEEL.]

**WHIRLPOOL**

T OVER SQUARE ROOT OF ONE MINUS VELOCITY
SQUARED DIVIDED
BY THE SPEED OF LIGHT SQUARED.

The focal point is to think about our relatives.

CARTWHEEL

TIME'S NOT RELATIVE...

(Pointing to the lights.)

What is this?!

WHIRLPOOL

Enlightenment.

CARTWHEEL

Where's time in all this?

WHIRLPOOL

Did I forget to mention that time's in the fourth dimension?
Time's invisible in our third dimension. So, these strobes of
lights will have to do in presenting the speed of time.

CARTWHEEL

Why is my time so slow?

WHIRLPOOL

Time ain't fast if you keep stressing. Think about something
that makes you happy.

**CARTWHEEL**

Family...

WHIRLPOOL

Exactly. One moment here seems like a million years...

[Strobe of lights erratically quickens near CARTWHEEL.]

CARTWHEEL

When you factor in time...

(Freaking out.)

One million years with relatives seem like a moment.

WHIRLPOOL

That's relativity. Time goes by quickly, being clustered with those you love spending it with. Time is specially related to family.

(CARTWHEEL tries to be in denial.)

CARTWHEEL

UNRELATED.

WHIRLPOOL

TIME WILL TELL YOU
TO CONFRONT YOUR RELATIVES.

CARTWHEEL

NOT RELATED.

**WHIRLPOOL**

TIME WILL TELL YOU
TO RESPECT YOUR RELATIVES.

CARTWHEEL

NO DEBATE.

WHIRLPOOL

TIME WILL TELL YOU
TO HELP OUT YOUR RELATIVES.

CARTWHEEL

YOU'RE DELUSED.

WHIRLPOOL

JUST DILATED.

CARTWHEEL

Dial it back.

WHIRLPOOL

Nah. You dial back your worries. Quit denying reality.

CARTWHEEL

It's too early to turn back.

WHIRLPOOL

It'll be too late if we turn our backs. Let's just take it step by step...

T OVER SQUARE ROOT OF ONE MINUS VELOCITY...

**CARTWHEEL**

(Forgetfully.)

Under the cube root of one times speed...? I'm slow as time... Drop this meditation. We're not bending from our objective.

WHIRLPOOL

And that is to make amends with our family...

CARTWHEEL

Get bent.

WHIRLPOOL

Bent or straight, time points towards the end. Let's ride the rest of it out with our loved ones.

TIME'S FOR FAMILY;
THAT'S WHY LIFE AIN'T FAST WITHOUT THEM.

CARTWHEEL

SINCE TIME GETS REAL SLOW,
THEN LIFE IS LONGER WITHOUT THEM.

WHIRLPOOL

THAT AIN'T HOW TIME WORKS.

CARTWHEEL

FAMILY'S NOT IN THE EQUATION.

WHIRLPOOL

CHANGE IS.

**CARTWHEEL**

CHANGES?

WHIRLPOOL

YOU'LL CHANGE IN TIME.

T OVER SQUARE ROOT OF ONE MINUS VELOCITY
SQUARED DIVIDED—

(*CARTWHEEL strikes WHIRLPOOL.*)

(*WHIRLPOOL blocks CARTWHEEL's strike.*)

WHIRLPOOL

TIME IS RUNNING OUT,
YET TENSOR CALCULUS STRAINS YOU.

CARTWHEEL

NO ATTENTION SPANS
FOR REALITY THAT PAINS ME.
EACH MOMENT'S LOST TIME...

WHIRLPOOL

FAMILY'S IN OUR EQUATION.
THEY MAKE UP OUR SOCIAL CONSTRUCT.

(*CARTWHEEL gets up and walks away. They timely rotate like a ship's wheel.*)

CARTWHEEL

DOWNTIME.

(*WHIRLPOOL spirals clockwise in place.*)

**CARTWHEEL**

PLEASE DO FACE TIME.

WHIRLPOOL

I CAN'T FACE TIME.

WHIRLPOOL

Time moves slowly the further into one's gravity you go. So, your black-hole heart is younger than how you look. Really, you're naïve and scared on the inside. Life was fast when the family was together. One millennium, you were baby Cartwheel. The next, you're a teen with hands on the wheel. The same goes for Milky Way. Except we won't be there to see them grow. Sure, you ain't grown a bit. But get it to your head that there will someday be no time.

CARTWHEEL

I'm steering us away from the time dilation— Dilemma that we face. One universe, our caregiver cared. This Universe, they can't care less. In any Universe, we can't care as caregivers. Milky Way will outgrow our neglect. Past, present, and future, all we need is each other. You'll come around to it.

WHIRLPOOL

TIME'S TOO RELATIVE.
WE NEED TO SEE OUR FAMILY.
YOU'LL KNOW IN NO TIME...

[Light slows near WHIRLPOOL while light stops near CARTWHEEL.]

CARTWHEEL

T. Time... Over. Time has an influence on us all... Square. Our family square... Root. Where we come from... Of one. Our single parent... Minus velocity. Each of us leaving for another city... Squared divided. Our family is divided... By the speed of light squared. Even though we squared off, our family will truly be over once we see the light...



(CARTWHEEL reaches enlightenment.)

CARTWHEEL (cont.)

Time is more special than it is relative... Because unlike light, time is not passed down. Time's only here for the relationships in the moment. Milky Way may be cute. Triangulum may be obtuse. Andromeda may be quiet. Whirlpool may be a risky whirlpool. And I may be a poor steerer. But we are forever Singularity's babies. And no matter how hard we try, nevermore family will be. Whether times are fast or slow, it doesn't change that time will pass away. We must be there for our family, before we won't have time anymore. We'll know in no time.

(Returning and lending a hand to WHIRLPOOL.)

TIME'S NOT UP, RELATIVE.

(WHIRLPOOL accepts their hand. They stand with CARTWHEEL.)

[Their lights gradually balance one another.]

(Through a training montage, CARTWHEEL assembles $\Delta t = \frac{\Delta t_0}{\sqrt{1 - \frac{v^2}{c^2}}}$. They share it with WHIRLPOOL.

CARTWHEEL

T OVER SQUARE ROOT OF ONE MINUS VELOCITY
SQUARED DIVIDED
BY THE SPEED OF LIGHT SQUARED.

WHIRLPOOL

(CARTWHEEL eventually earns their ring.
They can perfectly cartwheel again.)

**WHIRLPOOL**

TIME IS RELATIVE.
YOU'VE CHANGED AND SO FAMILY COMES FIRST.

CARTWHEEL

TIME IS FAMILY,
AS THERE'S LITTLE TIME LEFT WITH THEM.

WHIRLPOOL

(Proudly.)

WHY WE'RE HEADING HOME?

CARTWHEEL

TIME GOES BY FASTER WHEN LIFE'S LIGHTER.

[Light forms a box like a picture frame around CARTWHEEL and WHIRLPOOL.]

TIME IS IN OUR FRAME OF REFERENCE.
TIMES ARE SPECIAL FOR YOU AND ME.

(CARTWHEEL and WHIRLPOOL have a warm stance.)

CARTWHEEL**WHIRLPOOL**

TIME...
TIME.
LET'S NOT WASTE TIME.

[End of "Time is Relative."]



[*The Center of the Universe*]

[*The home returns. Singularity remains on the table. This Ellipse is messier.*]

CARTWHEEL

WHIRLPOOL

We're home! Dilations, Milky Way. Milky Way!

WHIRLPOOL

Where are ya, ya barred rascal?

CARTWHEEL

I'll let you roll the first die on Tardigrades and Elevators.

(*WHIRLPOOL peaks into the offstage bedroom.*)

WHIRLPOOL

We have a warm plate of nuclear pasta ready for you! Ain't stopping them from showing up.

11. SPAGHETTI HORIZON (incid-in-progress)

(*The TIDALS remain absent. They whistle.*)

CARTWHEEL

Did anyone feed the tidal forces...?

(*A group of TIDALS grabs ahold of WHIRLPOOL while the other grabs ahold of CARTWHEEL.*)

We're about to be the first to die!

(*CARTWHEEL and WHIRLPOOL cry out for one another. They may also argue.*)

(*SINGULARITY remains lifeless. They echo.*)

SINGULARITY

You dare not look after your baby sibling?!

CARTWHEEL

From the cosmic beyond...

WHIRLPOOL

Our relative is specially...

CARTWHEEL

Relativistically...

CARTWHEEL

WHIRLPOOL

Upset!

(*The TIDALS drag out WHIRLPOOL and pluck out CARTWHEEL in separate directions.*)

TIDALS

(Repeating.)

SPAGHETTI HORIZON...

SPAGHETTIFICATION...

[The home stows away.]

[End of "Spaghetti Horizon."]



[*The Fabric of Spacetime*]

(*MILKY WAY drifts in. They exhaustedly drop the dish. They stow away the dish.*)

MILKY WAY

Milky Way for...

SOLAR SYSTEM EARTH (ensemble character)

Forgotten?

MILKY WAY

Imaginary friends?

SOLAR SYSTEM ERIS (JD)

No, we're your planetary friends.

SOLAR SYSTEM EARTH (ensemble character)

I'm not.

SOLAR SYSTEM PLANETS, NOT EARTH

No one is asking you, Earth.

SOLAR SYSTEM ERIS (JD)

Don't give up. You're not the only one forgotten. Everyone remembers Pluto. But I'm cooler, literally. I'm Eris by the way, and I should be the heiress/heir-no-less of the dwarf planets. You may be barred, but barred spiral Galaxies are bigger than normal spirals like Triangulum and Andromeda.

**SOLAR SYSTEM JUPITER (Whirlpool)**

You most certainly are a massive spiral galaxy.

SOLAR SYSTEM SATURN (Cartwheel)

Says the gas giant with dozens of Jovian moooooons.

SOLAR SYSTEM JUPITER (Whirlpool)

Go play with your ring.

SOLAR SYSTEM SATURN (Cartwheel)

Jupiter is just jealous of mine. Got a ring to spare, Uranus?

SOLAR SYSTEM URANUS (Triangulum)

Two. In fact.

JUPITER (Whirlpool)**SATURN (CARTWHEEL)**

You are a two.

(Laughing.)

SOLAR SYSTEM SUN (Singularity)

Planets. What is with the radio outbursts?

SOLAR SYSTEM URANUS (Triangulum)

Nomy/Mama/Papa Sun. These other gas giants are making fun of my Earthly construct of a name.

MILKY WAY

Even planets have a nomy/mama/papa? And they have brains, too?



SOLAR SYSTEM EARTH (ensemble character)

You're a Galaxy. You have no brain. Unlike planets. Us planets have brains. At least, mine is in my inner core.

SOLAR SYSTEM SUN (Singularity)

Earth, who are you talking to?

SOLAR SYSTEM EARTH (ensemble character)

Just mantling with my Moooooon, nomy/mama/papa Sun.

MILKY WAY

May I talk to Mooooon?

SOLAR SYSTEM EARTH (ensemble character)

You have your own natural satellites. Isn't that right, Mooooon? Mooooon...? Why don't you ever return my calls?!

SOLAR SYSTEM ERIS (JD)

Earth and you have a lot in common. You are rather dense, if not diffused with clouds. But you're not in the inner circle like Earth is. Trust me as I make my way around the Kuiper Belt. I hate my elliptical orbit. One decade, you're with your family. The next centuries, you're a rogue planet.

MILKY WAY

Patience. Only a millennia.

SOLAR SYSTEM EARTH (ensemble character)

Oh yeah, you're a Galaxy. The frame of time is dilated for you. Let this rocky planet convert it... The last time you were in your family's orbit was... 13.81 billion years ago. As a Galaxy, do you hate being an oval?



(*MILKY WAY is about to break down.*)

SOLAR SYSTEM SUN (Singularity)

Earth, I didn't raise you to be mean to other shapes.

SOLAR SYSTEM EARTH (ensemble character)

Just like you as a star, I'm very proud to be a sphere.

(*MILKY WAY feels their body.*)

Ew, waves...

(*MILKY WAY feels their face.*)

Pff, wrinkles.

SOLAR SYSTEM ERIS (JD)

Don't take any more of Earth's bullying. They may be the perfect person that you always want to be. But you are already a person, Milky Way. What with your waves. And wrinkles, imperfect as they are. Just like Oort Cloud, who I want you to meet.

SOLAR SYSTEM OORT CLOUD (Andromeda)

I'm out of this Solar System and yet I have a stronghold on it, just like you. I've heard a lot about you, Milky Way. I have an influence that is about a hundred thousand astronomical units wide, but you, you are 6.685 billion. Personally, I know enough about comets' tails. Do you have a tale to share with us, Milky Way? Gather around, Solar System!

(*The SOLAR SYSTEM pops out as puppets.*)

**SOLAR SYSTEM EARTH (ensemble character)**

Gravity well... Theorize somethin'!

(MILKY WAY gracelessly and half-melodically bellows, with cracks. They suddenly hiccup.)

Milky Way warped themself!

(The SOLAR SYSTEM bursts into laughter.)

(MILKY WAY bursts into tears.)

SOLAR SYSTEM OORT CLOUD (Andromeda)

All the use crying, Milky Way. Let it out. Milk of celestial kindness. There is a pattern here. You show a huge quality.

(MILKY WAY examines their physical self.)

Not your mass. Oh, the ellipses... You are a special Galaxy. You hold something dear that no one else has. Well, *your siblings probably do, but they won't show it.*

MILKY WAY

Tell me.

SOLAR SYSTEM OORT CLOUD (Andromeda)

You hold personhood. Persons covered in warp, waves, and wrinkles. There is a person in you, Milky Way.

**SOLAR SYSTEM EARTH (ensemble character)**

There are people in me.

SOLAR SYSTEM PLANETS, NOT EARTH

Cut your hubris, Earth!

SOLAR SYSTEM OORT CLOUD (Andromeda)

We like all things, *unearthly*, about you. You carry our weight, our history, our culture, our voices.

MILKY WAY

Sing it.

SOLAR SYSTEM OORT CLOUD (Andromeda)

You must first, own it.

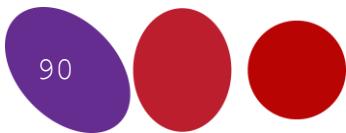
(*MILKY WAY nears the SOLAR SYSTEM puppets.*)

12. WARP, WAVES, AND WRINKLES**SOLAR SYSTEM**

MILKY WAY'S
ON THEIR OWN.
ALL ALONE.
KNOW THAT FOR
US AT HOME.
YOU'RE THE ONLY WAY FORWARD,
THROUGH WARP, WAVES, AND WRINKLES.

(*The SOLAR SYSTEM puppets are livelier.*)

THROUGH IT ALL.
THICK AND THIN.
THROUGH THE ENTIRE UNIVERSE.

**SOLAR SYSTEM OORT CLOUD (Andromeda)**

YOUR PLANETARY FRIENDS FEEL LIKE THEY'RE IN YOUR HEAD.

SOLAR SYSTEM

IMAGINARY!

SOLAR SYSTEM OORT CLOUD (Andromeda)

BUT REALLY...

SOLAR SYSTEM ERIS (JD)

THE SOLAR SYSTEM IS LOCATED ON YOUR ARM.

SOLAR SYSTEM

ONE OF YOUR FOUR...

*(Two extra arms extend out of MILKY WAY.
They are unaware of these arms.)*

SOLAR SYSTEM ERIS (JD)

ARMS, IN FACT.

SOLAR SYSTEM URANUS (Triangulum)

Check a mirror!

MILKY WAY

What's mirror?

SOLAR SYSTEM URANUS (Triangulum)

It's the thing to check what you look like!

**MILKY WAY**

I never know what I look like...

(The extra arms shake MILKY WAY's hands.)

SOLAR SYSTEM

Neither do we. But take it from us, we know you're beautiful on the inside!

(The SOLAR SYSTEM puppets shake each hand.)

SCUTUM-CRUX ARM.

PERSEUS ARM.

NORMA, CYGNUS.

SAGITTARIUS,

ARM AND HEART.

WE'RE HOME ON THE ORION.

ARM SO SMALL AND SO MINOR.

[A tiny arm pops out.]

SOLAR SYSTEM OORT CLOUD (Andromeda)

You are Magellanic.

(MILKY WAY ponders.)

They're not planets and you don't need to imagine. We hid a present in your waves.

(MILKY WAY digs into their outfit. They pull out two magnolia flowers.)

Like you, they have existed from the beginning of time. They signify perseverance and longevity—



(MILKY WAY devours the flowers.)

SOLAR SYSTEM OORT CLOUD (Andromeda) (cont.)

Don't eat your natural satellites!

MILKY WAY

(Mouthful of Magellanic Clouds.)

I gravitate my feelings...

SOLAR SYSTEM OORT CLOUD (Andromeda)

You Skull Nebula... Go ahead and have a taste of the Local Group while you're at it. Cook Sagittarius at 3 megaparsecs.

MILKY WAY

Parsecs no work like that. Parsecs's distance, not time.

SOLAR SYSTEM OORT CLOUD (Andromeda)

I'm parsecs away from losing it. Go back to coughing up nebulae.

SOLAR SYSTEM JUPITER (Whirlpool)

It's the nature of Galaxies... They'll eat everything.

SOLAR SYSTEM SATURN (Cartwheel)

Like us gas giants. We're persons too after all!

SOLAR SYSTEM OORT CLOUD (Andromeda)

Eat me... There are plenty of other objects to see outside you anyways... I mean, persons.

**SOLAR SYSTEM ERIS (JD)**

Milky Way has always been a person. But they have reached a new stage in personhood.

(MILKY WAY sings with natural flaws.)

MILKY WAY

I NOW HAVE
WARP, WAVES, AND WRINKLES.
I LIVE WITH IT.

WARP, WAVES, AND WRINKLES.
I LOVE MYSELF.

(The extra arms hug MILKY WAY.)

(Many SOLAR SYSTEMs spiral in. These dancers resemble known and unknown stars and planets, while EARTH drags their feet. They orbit MILKY WAY like the spiral arms around a supermassive black hole of a Galaxy. One dancer places a halo on MILKY WAY's head.)

SOLAR SYSTEM

HALO FRIEND
AND OUR HOME.
PROTECTOR
AND OUR RIDE.
HITCHHIKER
AND THE ONLY WAY OUT OF OUR...

WARP, WAVES, AND WRINKLES!
WE LOVE IT ALL!

(MILKY WAY loves this galactic stage that they have reached in their life.)



SOLAR SYSTEM SUN (Singularity)

Any more radio outbursts and I'll supernova your asteroids!

(*MILKY WAY and the SOLAR SYSTEMs lower a bit in distress. They confidently resume.*)

MILKY WAY

SOLAR SYSTEM

OUR WARP, WAVES, AND WRINKLES!

[*End of "Warp, Waves, and Wrinkles."*]

[*The stage goes red as though the Sun has become a red giant and is swallowing the Solar System in their wake.*]

(*The SOLAR SYSTEMs run away. EARTH screams in the searing heat. JUPITER and SATURN maniacally laugh.*)

(*MILKY WAY suddenly feels a headache. They touch their forehead. They take their hand off to reveal a zit on their forehead.*)

MILKY WAY

W— W— N— Wr—

SOLAR SYSTEM OORT CLOUD (Andromeda)

Warp, waves, and wrinkles, we got a sense for... But not red giants. Welcome to adolescence.

(*MILKY WAY passes out on the ground.*)

(*TRIANGULUM and ANDROMEDA stroll in.*)

13. GLOBULAR (shanty-in-progress)

ANDROMEDA

EVERYTHING IS A BIG CLUSTER FLUX.

THAT IS THE SPIRIT, ISN'T IT?

MATTERS COME AND GO.

CRUXES OF FORCES THAT HOLD

ALL US TOGETHER.

IT'S WHY WE CLUSTER OUR STARS.

AS FOR MILKY WAY,

LET THEM JOIN THE GLOB. GLOBULAR.

[End of "Globular."]

(ANDROMEDA and TRIANGULUM runs to MILKY WAY.)

TRIANGULUM

ANDROMEDA

Milky Way! Declinations!

(ANDROMEDA looks upon MILKY WAY.)

ANDROMEDA

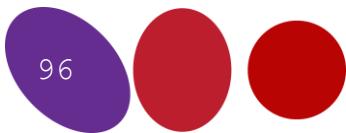
Did we lose Milky Way? Oh no. They're dead... They're in the temple of the cosmic beyond...

TRIANGULUM

Oh. No. They're going through puberty. There's a zit on their temple.

MILKY WAY

Zit?

**TRIANGULUM**

It's when after several billion years, a star grows into a red giant, swallow the planets near it, and enflame your galactic skin. We've been there.

ANDROMEDA

Let's supernova it and get going.

MILKY WAY

No... Plant friends.

ANDROMEDA

Plant friends?

MILKY WAY

Their name is Solar System.

TRIANGULUM

Our cells from the planets to the comets, don't actually hold us up. It is the dark matter. Sorry, Milky Way. But your imaginary friends—

ANDROMEDA

Solar System.

TRIANGULUM

Solar System is long gone. All we could do is make sure they burn in peace.

(Smirking at ANDROMEDA.)

**ANDROMEDA**

What?

TRIANGULUM

Pop it.

ANDROMEDA

No.

TRIANGULUM

Pop the red giant.

ANDROMEDA

I'm not touching that thing.

TRIANGULUM

What? A little space scurvy is too scary for you?

ANDROMEDA

We can carry Milky Way home.

TRIANGULUM

You can. I have these teeny spiral arms, remember?

(ANDROMEDA levels with MILKY WAY.)

ANDROMEDA

Ye repulsed by your dark energy lately...

TRIANGULUM

Dark matter holds up, more than light ever could. I don't like seeing our family get old...

ANDROMEDA

Growing with family will always be uplifting. Dark energy repels us.

14. FABRIC (incidental-in-progress)

(*The TIDALS remain absent.*)

TIDALS

Fall!

TRIANGULUM

Speaking of dark energy... Who let the tidal forces out?!

(*MILKY WAY pulls out their tiny dish.*)

(*The TIDALS prowl out.*)

(*TRIANGULUM pulls out some tiny dishes. They toss them to the TIDALS.*)

The tidal dogs are unfed! Don't worry. We have treats for you!

(*The TIDALS swat the dish away.*)

You don't want nuclear pasta?! That's all we ever had.

**ANDROMEDA**

We didn't have this wide-open space...

TRIANGULUM

But they have been used to our doghouse for eternities.

ANDROMEDA

And once JD gave them a taste of the fabric of spacetime... Of freedom... They won't let go of this cosmic dog park without a fight.

TRIANGULUM

When did you start understanding their plight?

ANDROMEDA

Honestly, ye am hesitant about undoing the Big Bang... Ye, too, enjoy this space.

TRIANGULUM

Look, Tidals. It's not what it looks like. We are not rolling the Universe back to the way things were...

(Whispering to ANDROMEDA.)

We got to keep moving.

ANDROMEDA

Ye don't want Milky Way to be in a world of pain any longer.

TRIANGULUM

We're going to be in a universe of hurt! Carry Milky Way.

**MILKY WAY**

Fix...

*(The TIDALS instinctually sit for a moment.
They refocus on ANDROMEDA and MILKY WAY.
They encircle them.)*

TIDALS

Force! Force! Force! Force! Force! Force! Force! Force!

(The TIDALS pounce.)

(ANDROMEDA pops MILKY WAY's zit.)

MILKY WAY

Quasar!

(The spotlight lands on MILKY WAY.)

(The TIDALS get blinded and scatter away.)

TRIANGULUM

Milky Way. Don't go to the light!

ANDROMEDA

The light is actually coming from Milky Way.

TRIANGULUM

That's the most extreme pulsar I've ever seen emitted.

(MILKY WAY stops emitting light.)

**MILKY WAY**

Quasi-stellar radio source...!

(ANDROMEDA helps MILKY WAY up.)

ANDROMEDA

Looks like you are officially a teenage Galaxy...

TRIANGULUM

I can't deal with another one...

(MILKY WAY offers their hand. They raise their head high.)

MILKY WAY

Only way's forward...

(TRIANGULUM clusters with ANDROMEDA and MILKY WAY.)

TRIANGULUM

(Relieved.)

Milky Way forward, Milky Way. Milky Way forward...

(TRIANGULUM, ANDROMEDA, and MILKY WAY walk it off.)

[End of "Fabric."]



(*JD and GRAVITY wander.*)

(*GRAVITY appears huskier.*)

(*JD pulls out and briefly looks through the monocular. They stow it away.*)

JD

A trillion years...

(*Grabbing a ball.*)

Fetch, Gravity.

(*Tossing the ball.*)

Fetch the star!

GRAVITY

Force!

(*Retrieving the ball.*)

(*JD pets GRAVITY.*)

JD

Who's a good tidal force? You are. You are. You shaved a couple hundred thousand years from that retrieval.

(*Tossing the ball.*)

Perfect spiral arm!

[*A Quasar looms in the distance.*]

(*JD sees MILKY WAY's light.*)

JD

Milky Way...

**GRAVITY**

Abell?

(JD is surprised that they could understand the Tidals.)

JD

Force...?

GRAVITY

You always say *Abell* under your breath when you look out through your scope, back when the Edge was near the Center of our Universe. What is Abell?

JD

Abell is a name I gave *nothing*...

GRAVITY

Why name it Abell?

JD

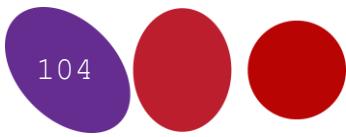
It's just like why I named you.

GRAVITY

Love and attraction?

JD

Yes, Gravity. That may be how I am able to communicate with you after all this time. I hope to talk to Abell, too. If they exist.

**GRAVITY**

If they exist?

JD

This Galaxy is the Galaxy of my dreams. And of my scope.

(Briefly pulling out the monocular.)

But maybe they are really just a dream. Singularity says that all Galaxies must have a supermassive-black-hole heart. Yet, Abell is able to do all the things a Galaxy does. I need to shed my light. I hope to share my light with them. Again, they're probably a legend and I literally believe in *nothing*.

GRAVITY

Singularity is the true legend. Who is *nothing* to you?

JD

Well, nothing is nothing when I was younger. But once I got older, nothing is everything. I hope to have nothing of my own. There's nothing here for us.

(Looking back at the Quasar.)

GRAVITY

We have this one flare like these, every million years then we continue threading along the fabric of spacetime. Don't stall on this now. The Edge of the Universe is just beyond the horizon.

JD

Well, we keep rolling away the horizon.

GRAVITY

This fabric of spacetime is not infinite. Nothing is infinite.

JD

You would know. You tidal forces are fifteen times my age...? As a Galaxy, I'm getting too old for this.

GRAVITY

You're blowing it out of proportion.

JD

2.327 terameters per year per megaparsec... The Universe is expanding. The light can't even see the end of the tunnel.

GRAVITY

I don't know how to convert that. I'm a tidal dog.

JD

And yet, on this voyage, you learnt how to speak my language... Or I learnt how to speak tidal force... Whether or not, I have grown in the worst ways possible.

(GRAVITY retrieves the ball.)

GRAVITY

You are part of my accretion, and I thank you. Grow up but don't grow up.

(JD misunderstands.)

JD

...Give up and give up?

GRAVITY

Your tidal dog whispering is a bit low in escape velocity... So, your voice will carry far...



(*JD exhaustedly looks out.*)

JD

Far, far away...

15. FAR-FETCHED (bigpro#-in-progress)

GRAVITY

LONG TIME AGO
YOU WERE REAL CLOSE
TO THE CENTER
WHERE YOUR SIBLINGS,
WHERE YOUR BROTHERS,
WHERE YOUR SISTERS,
WHERE YOUR PARENT...

JD

SINGULARITY.

GRAVITY

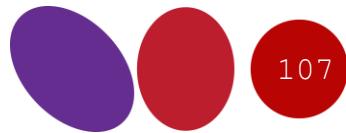
APPARENTLY
WILL NOT FORGET.
WILL NOT FORGIVE.
CAN I FORETELL?
CAN'T YOU FORESEE?
THIS IS FAR-FETCHED.

(*Snatching the ball. They toss it in the direction of the Center of the Universe.*)

GO FETCH THE STAR...

(*JD heads to the ball. They cramp up.*)

FORGOT TO STRETCH?

**JD**

ALL'S A STRETCH!

GRAVITY

THE EDGE OF THE UNIVERSE IS FAR.
YET, IT IS SOMETHING YOU GALAXIES NEED TO FETCH.
POINT OF RETURN IS FAR-FETCHED.

(Heading to JD's side. They point to the ball.)

WE'RE ON THE SAME WAVELENGTH.
YOU'RE SPEAKING TIDAL FORCE NOW.
THAT ONCE SEEMED AS THOUGH FAR-FETCHED.

JD

IT GIVES ME PAUSE.

GRAVITY

IMPLAUSIBLE.
DOES IT GIVE YOU PAUSE WITH ALL OF YOUR ACCRETE
THINKING?
DOES IT GIVE YOU PAUSE THAT THE STRINGS WE WALK ON ARE
STRUMMED?
DOES IT GIVE YOU PAUSE WHENEVER YOU BE SHOOTING STARS?

(Snatching another ball. They toss it in the direction of the Edge of the Universe.)

IMPLAUSIBLE.
DOES IT GIVE YOU PAUSE THAT YOU ARE FULL OF LIVING
THINGS?
DOES IT GIVE YOU PAUSE ALL OF YOUR CELLS ARE STAR
SYSTEMS?
DOES IT GIVE YOU PAUSE, YOU HAVE A BLACK HOLE FOR A
HEART?

**JD**

IT'S PLAUSIBLE!

(Dropping numerous balls. They tearfully hold their heart.)

(The TIDALS rush in like a tidal wave.)

GRAVITY

You are part of my accretion, and I thank your...

(Nearing JD.)

SUPERMASSIVE BLACK HOLE!

(Jumping on and embracing JD like a dog.)

(The TIDALS loom in the distance.)

TIDALS

SUPERMASSIVE HEART!

GRAVITY

SPT0615-JD, YOU ARE NEAR AND WELL-KEPT TO ME!

TIDALS

NEAR AND WELL-KEPT!

GRAVITY

THE EDGE OF THE UNIVERSE IS FAR.

TIDALS

FAR!

**GRAVITY**

YET, IT IS SOMETHING YOU GALAXIES NEED TO FETCH.

TIDALs

FETCH!

GRAVITY

POINT OF RETURN IS...

JD

FAR-FETCHED!

(JD and GRAVITY pick up the balls.)

JD**GRAVITY**

APPARENTLY,
WE'LL NOT FORGET.
WE'LL NOT FORGIVE.
CAN WE FORETELL?
CAN'T WE FORESEE?
WE ARE FAR-FETCHED.

*(GRAVITY accidentally hands SINGULARITY's
eyeball to JD.)*

JD

Singularity's eye?!

TIDALs

A BIT FAR-FETCHED!

(The TIDALs vanish.)



110

[End of "Far-Fetched."]

16. POINT

[*The Center of the Universe*]

[*The home returns. Shattered glasses cover the rug. A Quasar looms in the distance.*]

(*SINGULARITY suddenly awakens, with one eye open. They sit upright. They find the Big Bang Taser in their hand. They toss it away. They get off the table. They make their way to the rug. They notice the Quasar. They accidentally step onto the glasses. They fall onto the rug. They hold their foot in pain and agony. Their missing eye is towards the rug. They progressively become a singularity on this rug of spacetime.*)

SINGULARITY

WHERE IS THE POINT IN ALL THIS TROUBLE?

ALONE...

I TREMBLE AT THIS POINT OR
PERIOD.

MY POINT IS MOOT WHEN I HAVE SENTENCED
MY KIDS...
TO A LIFE ON THE EDGE.
NO RETURN.

WHAT IS THE POINT OF THE UNIVERSE?

SINGLE...

WHAT IS THE ENTIRE POINT
WITHOUT US?

(*Hiding their face.*)

(*The TIDALS remain absent. Their barks echo and repeat in the distance.*)

TIDALS

Single! Singularity! Single! Singularity! Single! Singularity!



(*SINGULARITY shivers.*)

(*MULTPLICITIES are in the audience. They break through the barks.*)

MULTPLICITIES

WHAT IS THIS POINT TO MAKE, WHEN THEY'RE MADE?

SINGLE

PARENT WHO MADE MANY POINTS

LIKE ALL THIS.

(*SINGULARITY peeks out their remaining eye.*)

[*Six galaxies are projected or physically demonstrated via props or puppets in the distance.*]

TIDALS

(*Echoing and repeating.*)

Single Clarity! Single Clarity! Single Clarity! Single Clarity!

(*SINGULARITY sits upright.*)

[*The spotlight lands on SINGULARITY. It progressively grows elliptical and eventually becomes the only light.*]

MULTPLICITIES

THERE IS NO POINT TO REVERSE.

THERE IS NO US IN YOUR VERSE.

THE POINT OF THIS UNIVERSE

IS YOU...



(*SINGULARITY meditates.*)

SINGULARITY

THE POINT IN YOU IS A UNIVERSE.
THE POINT IS YOU.

[The light dims to a singular point.]

[End of "Point."]

End of Act



LIP

ACT II

[*SINGULARITY's Backstory and Past Universe*]

[Wonders fill the theatre. The front of the stage is solely lit. The stage is dark.]

(GRAVITY remains absent. They narrate.)

GRAVITY

An eternity ago in a Universe unlike any other that we could ever fathom, these supernatural beings, called Multiplicities, gave birth to a very special Galaxy. They named their baby, Singularity. And like any other Galaxy, this one bloomed. However, Singularity was unlike their guardians. This Galaxy had a supermassive heart. In fact, it was so massive that their parents couldn't even hold their cluster of stars. Singularity sucked the energy out of them; not even light could escape it.

Their parents wanted to raise them but not beyond who their child already was. And Singularity was better at raising... Hell. Wherever they went, so did the space. They literally sucked the energy out of the room, too. They were bent on bending light. But even though they warped time itself, time still flew. It was time for Singularity to meet their event horizon.

Eventually, Multiplicities sat Singularity down and let them know what is in their heart(s). And with that heartless truth, Singularity left behind their family, ran away from their Center, and fell off the Edge of their Universe.

17. HEAT DEATH

(In the audience, SINGULARITY stands. They are youthful and resplendent as a Galaxy. They shoot MULTIPLICITY Ω in the face with the Big Bang Taser. They run away from their parents. They slide towards the stage and grab ahold of the frontmost seat in the theatre. They hold on for dear life.)

[The fabric of spacetime stretches and eventually rips.]

(SINGULARITY tumbles in front of the stage. They hold a torn chunk of dark fabric, shielding the Big Bang Taser. They limp alongside the front of the stage. They find a spot to collapse against. They shiver as they feel lost in an interdimensional plane between Universes. They grow aware that they can never return home and will never be with their parents ever again for all eternity.)

SINGULARITY

HEAT DEATH IS SO COLD...

(MULTIPLICITY A and Ω get up from the audience. They resemble laws of physics enforcers. They look about. In a pattern, they shout SINGULARITY's name in the hopes of finding them, then grieve with one another.)

MULTIPLICITY A

Singularity! Without you, we are *nothing*... We love you. Please, come home. We need you. Return to the Center of the Universe, at once. We'll balance time for you. If you're going to run off into the cold, dark Universe, at least bring a jacket. Our precious Galaxy, where are you?!

Multiplicity. File a report. Our baby is missing!

MULTIPLICITY Ω

Singularity! Why did you grab my taser?! The Big Bang Taser.

Multiplicity. We're a part of the force... We raised them without forcing doubt on them. But you just had to go and tell them their supermassive disorder. Now, my face knows supermassive disorder. Ow... I authorized you to keep their center a secret!

**SINGULARITY**

I DON'T HAVE A... BLACK HOLE FOR A...

MULTIPLICITY A

Singularity!

Multiplicity. They have a black hole for a heart. Isn't that weird? Do you not see the problem of stars orbiting that chasm of theirs? *Oh right*, you can't see since they shot you in the face... Anyways, what would cells want to do circulating a heart? Why can't their stars be fixed like ours? I would regret as a nomy/mother/father if I spaghettified the truth.

SINGULARITY

I DON'T HAVE A... BLACK HOLE FOR A...

MULTIPLICITY Ω

Singularity!

Multiplicity. Spaghettify? You ripped a wormhole in them. You broke their heart. You dug into this dark energy. You've always regretted their supermassive heart and the spirit and soul that came with it. I can't comprehend how that is mathematically possible, but your quantized ego did it.

SINGULARITY

I DON'T HAVE THE HEART...

MULTIPLICITY A

Singularity!

Multiplicity. Our home is trashed everywhere they go— Forget it. My ego is atomic, but my love for our little nebula is galactic. Out there, they themself will be even more mutated and deformed. Agony. Ionized gas. They had to empirically know what their heart is capable of. Some millennia.



MULTIPLICITY Ω

Singularity!

Multiplicity. We won't get another millennium with them. They didn't have to know who they truly are inside. They could have experimented with their own internalized theories. You could have been a general relative to them... You took the light out of our little cluster of stars!

SINGULARITY

I DON'T HAVE A... BLACK HOLE FOR A...

I DON'T HAVE A... BLACK HOLE FOR A...

I DON'T HAVE THE HEART...

I DON'T HAVE THE... BLACK HOLE FOR THE...

I DON'T HAVE THE... BLACK HOLE FOR THE...

I DON'T HAVE A HEART!

MULTIPLICITY A

Singularity!

Multiplicity. They sucked the light out of us into their little event horizon! They have been relativitistically impossible to handle.

(Fighting their despondence.)

They have all the light they need... Time carries on with them, too. I wonder what they have to say about the end of time...

SINGULARITY

I DO NOT HOLD... ANY ANGER...

MULTIPLICITY Ω

Singularity!

Multiplicity. Declination!

**SINGULARITY**

I CAN'T BARGAIN... UP ENERGY...

MULTIPLICITY A

Singularity!

Multiplicity. We looked up and down. Right ascension?

SINGULARITY

I THINK ON WITH... NO DEPRESSION...

MULTIPLICITY Ω

Singularity!

Multiplicity. We looked left and right. Fourth dimension?

SINGULARITY

I ACCEPT HEAT DEATH...

MULTIPLICITY A

Singularity! We looked over and under every fabric of spacetime...

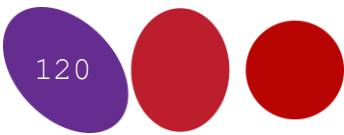
(Silence. MULTIPLICITIES realize that their child has forever vanished.)

MULTIPLICITY Ω

Sing— Our baby fell off the Edge of the Universe!

(MULTIPLICITIES weep for all eternity.)

[End of "Heat Death."]



(*SINGULARITY ponders for an eternity.*)

(*MULTIPLICITIES say SINGULARITY's name under their breaths then try to justify their heartache.*)

MULTIPLICITY A

Singularity... I deny they broke the laws of physics. They must be in the courtyard of another plane. Within the walls of a new stage. It has to be. Or not. They broke the fourth dimension...?

MULTIPLICITY Q

Singularity... I am angered that you would care whether or not they are breaking any law. At least, no longer our laws. We know that they can't break our universal laws.

MULTIPLICITY A

Singularity... I bargain the fact that the laws of physics are different in other universal jurisdictions. They don't know if they'll break the other laws of physics.

MULTIPLICITY Q

Singularity... I am depressed. Either way, they'll break...

(*SINGULARITY breaks down.*)

MULTIPLICITY A

Singularity... I accept they'll get eaten alive by unknown forces...

(*A TIDAL remain absent.*)

TIDAL

Force!

**MULTIPLICITY Q**

Singularity... Just a crunch...

[*Melody of "Crunch"*]

(*On stage, the TIDALs approach SINGULARITY.*)

MULTIPLICITY A

Multiplicity... I hope our baby makes good use of our Big Bang Taser...

(*SINGULARITY pulls out the Big Bang Taser. They ignite and aim it towards the TIDALs*)

SINGULARITY

Big freeze! What kind of forces do you exert—?

TIDAL(s)

Force!

(*SINGULARITY sways a bit.*)

SINGULARITY

Like to echo, huh?

TIDALs

Force force force...!

(*SINGULARITY feels the tidal force.*)

SINGULARITY

Hits like a tide! Is that all you can bark?

TIDALs

Fall!

(*SINGULARITY falls over themselves.*)

SINGULARITY

What are you howling about?!

MULTIPLICITY Q

Multiplicity. When they have a baby of their own, I hope theirs don't shoot our baby in the face like our baby did to me.

(*SINGULARITY accidentally electrocutes themselves with the Big Bang Taser. They shock themselves into a stupor.*)

TIDALs

(*Repeating.*)

Big big big big big. Bang!

(*SINGULARITY catches their breath. They decide to stow away the Big Bang Taser inside the fabric. They accept their fate.*)

SINGULARITY

Bring the heat...

(*The TIDALs grab ahold of SINGULARITY.*)

[*The light shifts to the Dome Home on stage. The home does not yet contain spacetime rug.*]



(*The TIDALS lift SINGULARITY onto the stage. They carry SINGULARITY into the home. They set down SINGULARITY. They grow tame. They present the tidal pup to SINGULARITY.*)

(*SINGULARITY sets down the fabric, where the rug will presently be.*)

SINGULARITY

You accept my black-hole heart?

GRAVITY

(*Adorably like a puppy.*)

Force! Force! Force!

(*SINGULARITY gently takes ahold of the tidal pup. They feel the sudden weight upon them.*)

SINGULARITY

The Gravity of it all!

(*Bonding with puppy GRAVITY.*)

(*MULTIPLICITY A and Ω return to their audience seats.*)

MULTIPLICITY A

Let us save space and believe that our Galaxy is in a better place.

MULTIPLICITY Ω

Let us mention that our cluster of stars have broken the fourth dimension.

**MULTIPLICITY A**

Let us remember their black hole and how it freed our soul.

MULTIPLICITY Ω

Let us be home, even when it's the hardest.

MULTIPlicities

Singularity is where the heart is.

SINGULARITY

(Timidly interacting with the TIDALs.)

Warm life...

TIDALs

(Gratefully howling.)

Fall!

[The home stows away.]

[The Fabric of Spacetime]

(JD and GRAVITY sit, eying SINGULARITY's eye.)

JD

Force! You sounded like an adorable tidal pup.

GRAVITY

Now I am fetching.

JD

I wouldn't go that far.

GRAVITY

But Singularity sure did. And you should do the same.

JD

Before considering it, I have questions. Singularity was raised by tidal forces?

GRAVITY

Indeed. Your parent was raised by us.

JD

How did my siblings and I come to be?

GRAVITY

Singularity planted seeds of cosmic gas and stardust and stirred some nebulae... At least, that's what my parents told me.



(*JD observes SINGULARITY's eye.*)

JD

You and your parents saw eye to eye?

GRAVITY

We tidal dogs have visible spectrum blindness. But that's better than having half depth perception.

JD

I miss Singularity's other eye...

GRAVITY

Your spiral arm was not quite accurate. You were off your mark with your shot. Didn't hit two eyes with one taser.

JD

I miss their presence.

GRAVITY

You have my eyes, my ears, my nose, my energy. Don't waste your full potential, especially when this tidal force understands you more than the most massive black hole in the Universe has ever did. Thank you for learning to speak my language.

JD

No matter in the Universe has spoken in such lengths before. I mean, thanks for sharing your energy and telling your story... Are you sure you don't know where Singularity came from? And what did beyond the Edge of the Universe look like?

[Projections or puppetry may help dive further into SINGULARITY's backstory, as they descend into darkness.]

GRAVITY

My family doesn't know them themselves. To reiterate, my parents and their fellow tidal forces smelt Singularity in an interdimensional ditch. They never quite picked up on what the Edge looked like as we tidal dogs are spectral blind. And to add, we have never seen any matter quite like Singularity, with a supermassive black hole for a heart. And one who supermassively hated themself.

The earlier eternities were spent trying to get this orphan to hide away their parents deep in their internal darkness. We taught them how to cluster nuclear pasta from our hunts for neutron stars. Singularity ascended to being the beta of the pack by magnetizing these neutron stars, when they took full advantage of that... Big Bang Taser. And soon, they became the alpha, when Singularity took advantage of us with it. My parents... Um...

Well, Singularity became what they called their parents: Multiplicities; those who caused pain and hurt to those who are difference, such as us tidal forces. Free and wild Tidals. Stowing away their past family manifested into matters darker than their supermassive black-hole heart... Rolling back the Universe into that Dome you lived in made us locked in. But that made Singularity feel secured. Where the resources of the entire Universe were packed in that Dome Home of yours.

JD

The Universe was wide and open?

GRAVITY

Indeed like now, finitely infinite. Long before you were born. By the way, nothing shocked us more than when Singularity had you six.

JD

Me and my sibling's Universe exist due to Singularity's eye for all this... The clustering that they did to make us who we are.

GRAVITY

Look, everything hit us when Singularity birthed you all from packing stars, nebulas, whatever that black-hole heart did. However, your given values and internal laws weren't made by Singularity. The Edge did. Our journey did. I made you.

JD

I can't make it...

GRAVITY

You are everything to me...

JD

I am...?

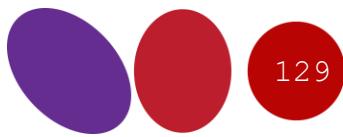
[There are sounds of marching.]

Nothing...?

(JD goes into hiding.)

(GRAVITY sentimentally remains.)

(JD grabs ahold of GRAVITY.)



18. BOUNCE BACK

(The TIDALS march in, with WHIRLPOOL and CARTWHEEL trapped within.)

[The light of a Quasar beams in.]

(The TIDALS scatter around, leaving CARTWHEEL and WHIRLPOOL out in the open.)

[The song plays the leitmotif of "Anomaly is Everything."]

(TRIANGULUM remains absent.)

TRIANGULUM

NOTHING!

[This song plays the tone of "Time is Relative."]

(CARTWHEEL and WHIRLPOOL gives a reassuring smile to one another.)

(WHIRLPOOL spirals a nearby TIDAL.)

WHIRLPOOL

NOTHING!

(CARTWHEEL cartwheels another TIDAL.)

CARTWHEEL

NOTHING!



(TRIANGULUM and ANDROMEDA treads in. They extend their arms to MILKY WAY's entrance.)

ANDROMEDA

NOTHING!

[This song plays the tone of "Fabric."]

(MILKY WAY draconically arrives. They blast rays like a Quasar.)

MILKY WAY

NOTHIN'!

(The GALAXIES cluster together.)

GALAXIES

BOUNCE BACK!

(Bouncing off and landing near their respective TIDALS. They choreographically fight the TIDALS, distinct in their combat. They pose or slow down whenever the song hits certain drums. Through forceful exposition, they detail themselves swiftly.)

(The TIDALS run away.)

(GRAVITY runs out and pounces on TRIANGULUM.)

GRAVITY

Nothing, huh?!

[End of "Bounce Back."]

**CARTWHEEL**

The gravity of the situation has gone awry, Triangulum?

WHIRLPOOL

Not the time, Cartwheel.

ANDROMEDA

Ye always a good time to pull us in with a gravitational joke,
Whirlpool.

MILKY WAY

Oval down, Andromeda!

TRIANGULUM

(*Sentimentally.*)

We're fighting like family again, Milky Way...

(*GRAVITY menacingly growls.*)

(*JD runs in.*)

JD

Down, Gravity! Down!

(*GRAVITY gets off TRIANGULUM.*)

Up, Gravity! Up!

(*GRAVITY helps TRIANGULUM up. They return to JD's side.*)

**GRAVITY**

Speaking of fighting...

(The GALAXIES bittersweetly look upon JD.)

(TRIANGULUM awkwardly bows.)

(The GALAXIES not JD glare at TRIANGULUM.)

(JD slightly tilts their head down.)

(TRIANGULUM runs to and embraces JD.)

JD

Family is...

TRIANGULUM

I know... I know... Forgiving.

GALAXIES not JD, TRIANGULUM

Declinations.

TRIANGULUM

Galaxies... Do not make me an anomaly...

(The GALAXIES hesitantly embrace JD.)

GALAXIES not JD

You're nothing without family...

**GRAVITY**

(*Tenderly.*)

Force...

(*The GALAXIES not JD turn to GRAVITY.*)

GALAXIES not JD

You're something. Not everything.

JD

Gravity is everything to me.

(*The GALAXIES not JD gets closer to GRAVITY.*)

I'm nothing without my tidal force. I will not return if you lay a spiral arm on my dog!

TRIANGULUM

It's our.

GRAVITY

Force!

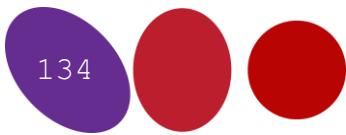
TRIANGULUM

They're ours.

(*Disturbingly scratching GRAVITY's ear.*)

Gravity can stay with us. Just keep them grounded.

(*MILKY WAY hands the dish to GRAVITY.*)

**JD**

That's the spirit of Gravity. Fix.

(*GRAVITY stays.*)

ANDROMEDA

How's life on the Edge treating you?

JD

Are you... On the Edge with me...?

(*The GALAXIES pause.*)

CARTWHEEL

The Edge will never be reached.

WHIRLPOOL

What we're saying is that there ain't a reason to try to outrun the fabric of spacetime that is unrolling faster than the speed of light.

TRIANGULUM

Besides the infinitely expanding Universe, did you learn anything new?

JD

I learnt what it means to be far-fetched.

WHIRLPOOL

Hmm... Far-Fetched?

**JD**

Gravity learnt how to fetch.

CARTWHEEL

Fetch?

JD

It's when I toss a star and Gravity goes and retrieves it.

(The GALAXIES not JD puzzledly looks on.)

When a massive object goes rouge out of its natural gravitational center due to a tensor phenomenon...

(Swinging up their arm to demonstrate throwing.)

Eventually, my supermassive self burrows in the sand on the beach that holds this rouge star, and I send a tidal force to retrieve that ball, like a tide.

(CARTWHEEL twirls their finger around their head to indicate lunacy.)

CARTWHEEL

Sounds lunar.

MILKY WAY

Moooooon.

TRIANGULUM

Don't get Milky Way started. You want to do a galactic activity for old times' sake...

**JD**

What did we even do for old times' sake?

MILKY WAY

A board game of Tardigrades and Elevators?!

JD

Ah so napping...?

ANDROMEDA

Sometimes dreamt of being unfixed stars...

JD

We literally spent eternities lying dormant...

GRAVITY

What else is there to do in a Dome?

TRIANGULUM

Force force force to you too, Gravity.

JD

Gravity's got a point.

TRIANGULUM

Gravity has no point.

**WHIRLPOOL**

Singularity does.

CARTWHEEL

Singularity is no longer the point. Remember?

JD

Singularity...? Is our nomy/mother/father still at the Center of the Universe? Are they breathing and mediating alright?

(MILKY WAY is about to break down.)

(ANDROMEDA hides away MILKY WAY.)

ANDROMEDA

Singularity is self-absorbed as always.

JD

Why are we...? Not with Singularity? As a family? With an anomaly?

CARTWHEEL

Singularity told us to spend time...

WHIRLPOOL

Singularity told us to make time...

CARTWHEEL

Hunting you.

WHIRLPOOL

For you.

**TRIANGULUM**

However, we cleared our minds on this journey. Our mission had some clarity.

ANDROMEDA

We want to take the edge off you.

GRAVITY

(Angrily.)

Force! Force! Force!

TRIANGULUM

Actually, jump off the edge with you!

JD

I never said I wanted to jump off the edge. And Gravity. You know what Andromeda means...

TRIANGULUM

No worries, Gravity. You don't understand any better.

JD

Being called an outlier by you, I'm the only one who knows whenever there are liars here...

MILKY WAY

Yeah, we are liars.

ANDROMEDA

Yes, Milky Way. Ye are a special outlier.

**JD**

Thank you for admitting that you've been lying when you have actually been believing there is something out there like I do!

TRIANGULUM

Yup. Exactly. That's what we meant.

GRAVITY

Force! Force! Force!

TRIANGULUM

Well, I believe you when you said Gravity has a point.

MILKY WAY

You speak tidal forces?

CARTWHEEL

What did Gravity say this time?

JD

Gravity says... That you are a three-dimensional, three-sided, and a triangulated role model.

TRIANGULUM

Tell Gravity I told them that they are not a bad tidal force. We'll build a good doghouse for you. In fact, we haven't had a shelter over our heads and a nap in trillions of years. I'm sure it's getting to our heads. As JD is talking to tidal dogs now. Let's set up camp. Assemble the Continuum Checkpoint.



[*The Continuum Checkpoint*]

[There are three miniature domes that resemble the Dome Home. They could either be physically built or be exemplified by elliptical spotlights. The Left Ellipse is the doghouse, the Central Ellipse is the sleeping quarters for the GALAXIES, and the Right Ellipse is the command post.]

(*GRAVITY sits in the Left Ellipse.*)

(*JD peeks into the Left Ellipse.*)

JD

Thin-disked, halo-less, clump of gas and dust... Ha.

(*ANDROMEDA heads into the Center Ellipse.*)

ANDROMEDA

Finally. Some elliptical shuteye.

GRAVITY

Force...

JD

Triangulum is not shaping up to be who they were... We all grow out of the Ellipse at some point.

(*Ironically missing the point of the camp.*)

(*TRIANGULUM sits down in the Center Ellipse.*)

[*A whoopie cushion is heard.*]



(*CARTWHEEL and WHIRLPOOL high five.*)

(*MILKY WAY snickers.*)

(*TRIANGULUM may pull out a whoopie cushion.*)

CARTWHEEL

You dig our cluster?

WHIRLPOOL

Are we merging our masses?

(*JD wave to GRAVITY. They enter the Center Ellipse.*)

MILKY WAY

Andromeda. Sing Cartwheel and Whirlpool and JD your space shanty.

13. GLOBULAR (shanty-in-progress)

ANDROMEDA

EVERYTHING IS A BIG CLUSTER FLUX.
THAT IS THE SPIRIT, ISN'T IT?

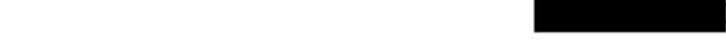
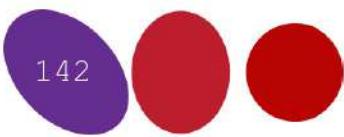
MATTERS COME AND GO.
CRUXES OF FORCES THAT HOLD

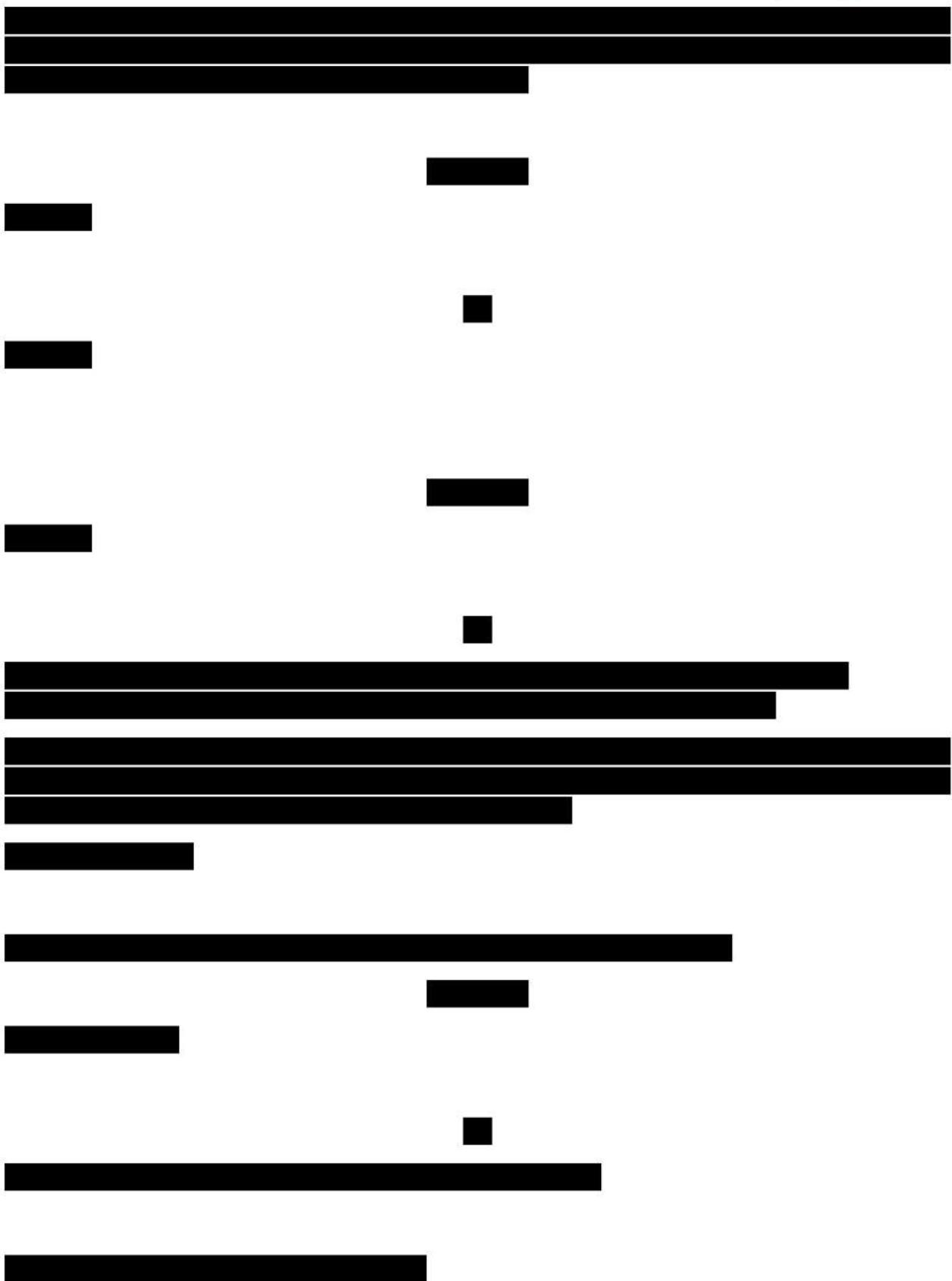
ALL US TOGETHER.
IT'S WHY WE CLUSTER OUR STARS.

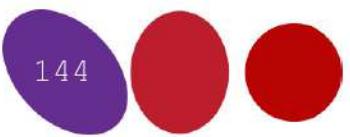
AS FOR CARTWHEEL, WHIRLPOOL, AND... JD,
LET THEM JOIN THE GLOB. GLOBULAR.

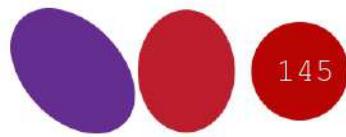
(*The GALAXIES poorly recite "Globular."*)

[End of "Globular."]



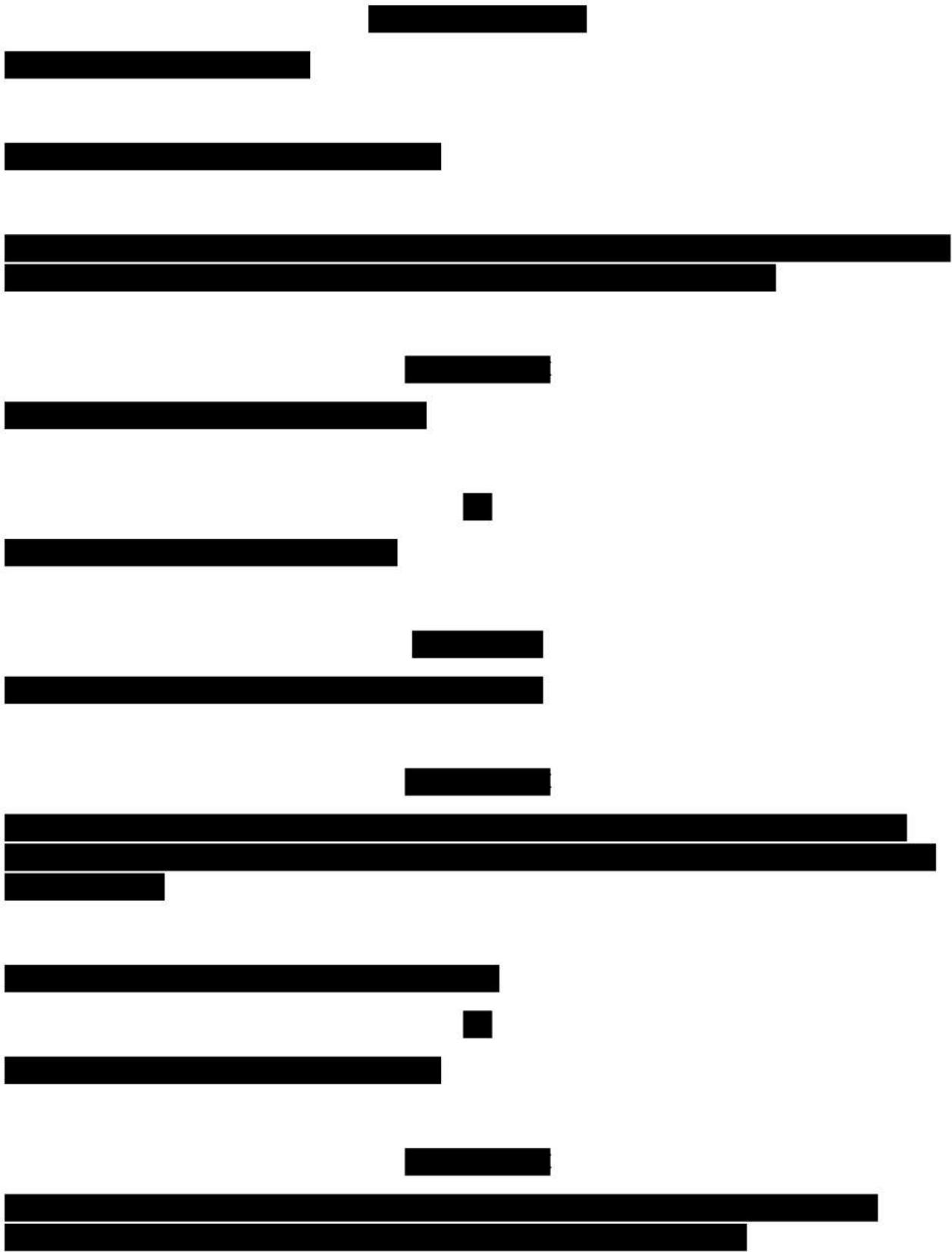
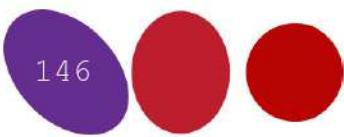


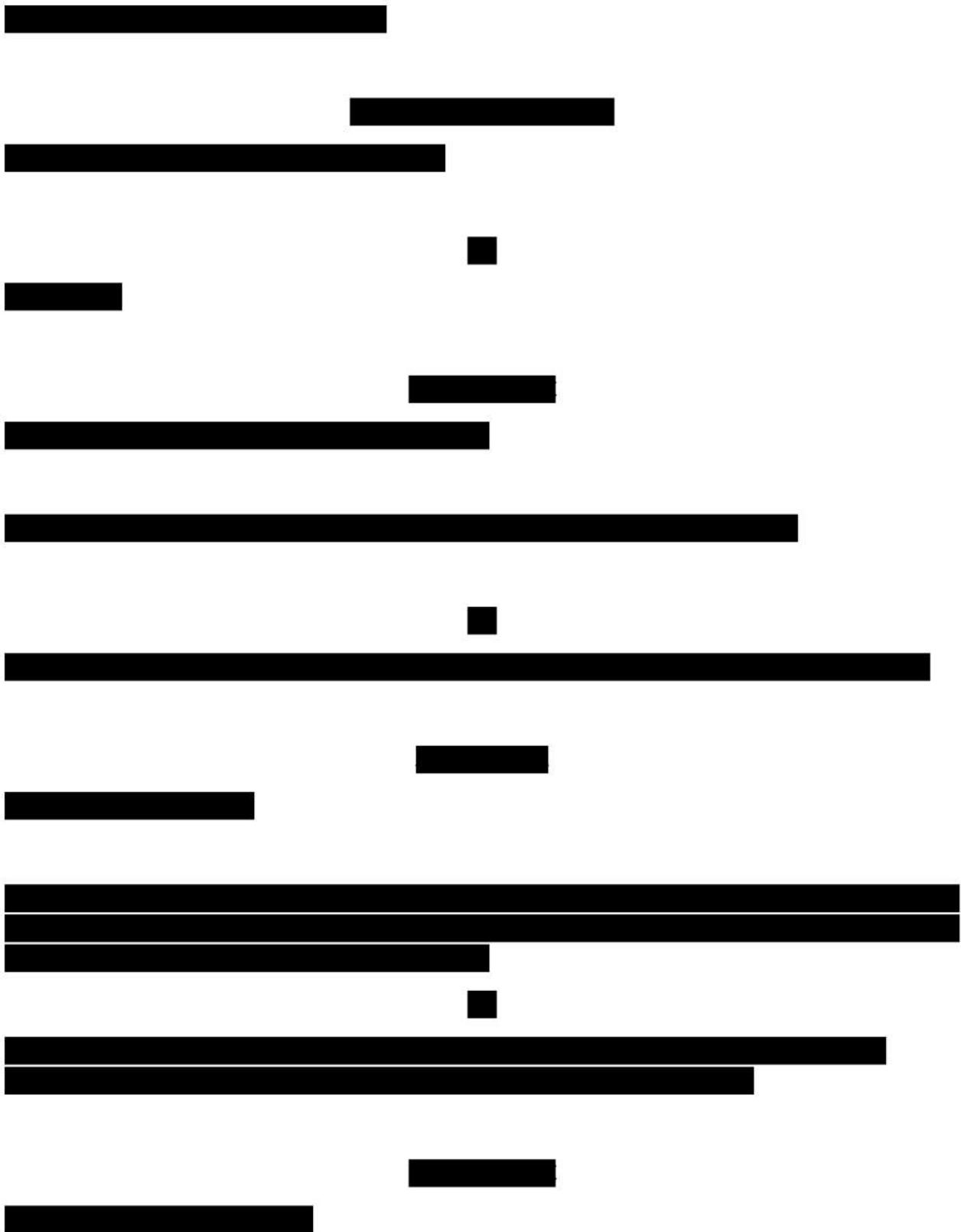


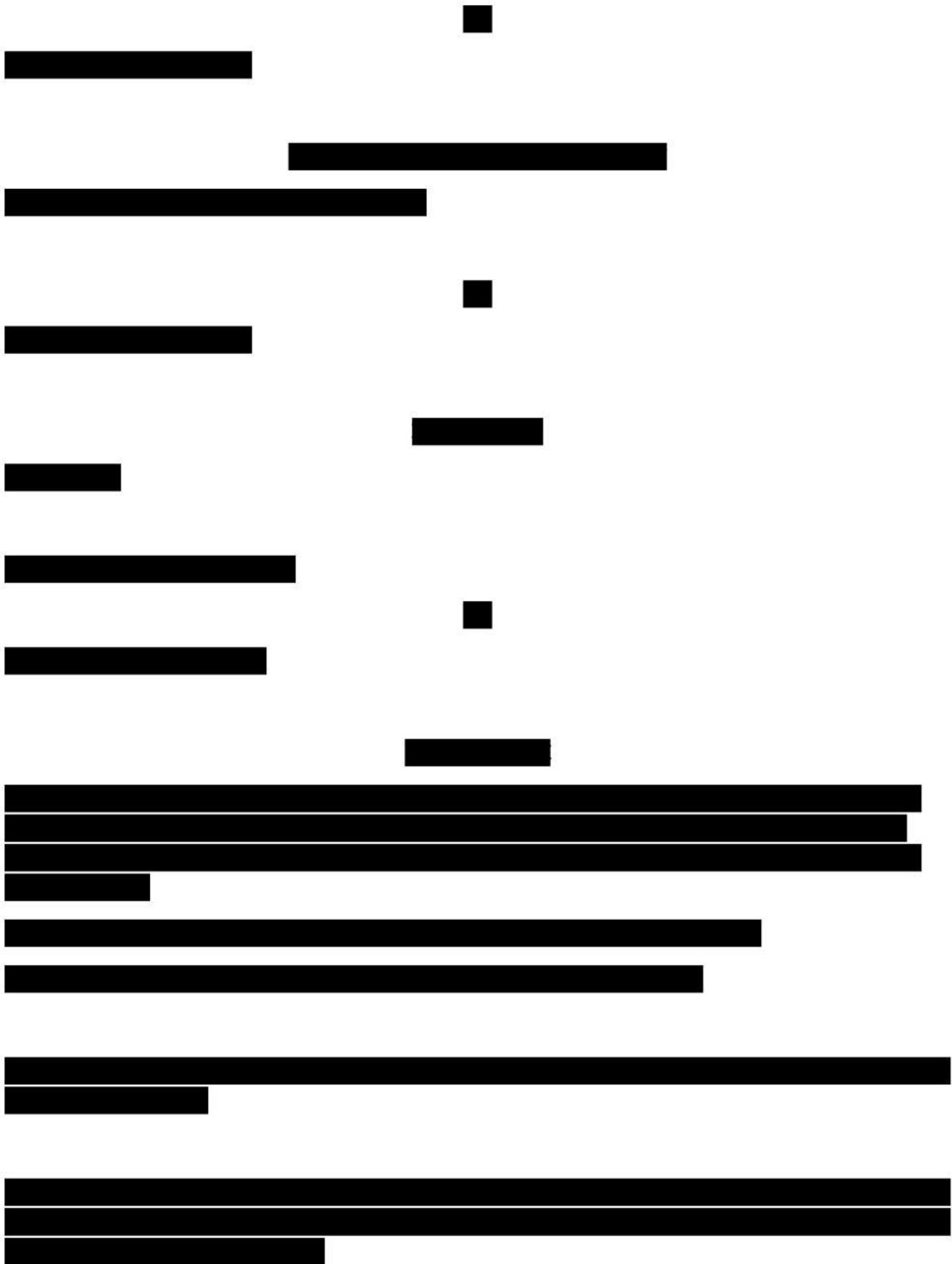
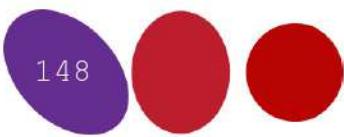


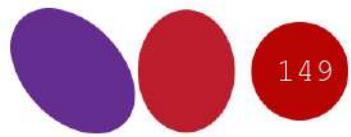
19. APPARENT











20. THE SCOPE OF THINGS

100

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Page 1

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Page 1

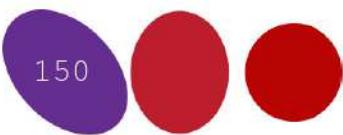
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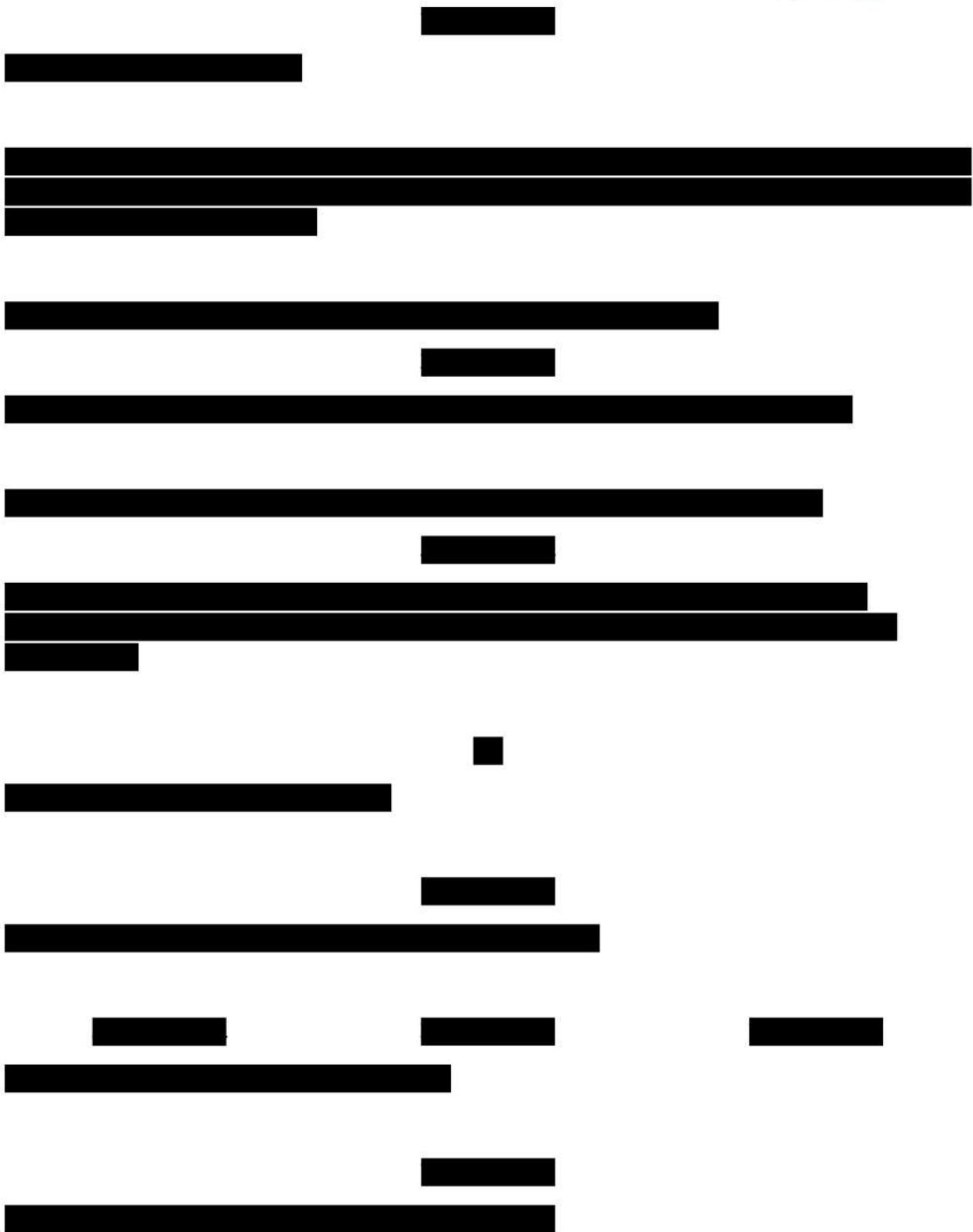
A set of small, light-gray navigation icons typically found in LaTeX Beamer presentations, including symbols for back, forward, search, and table of contents.

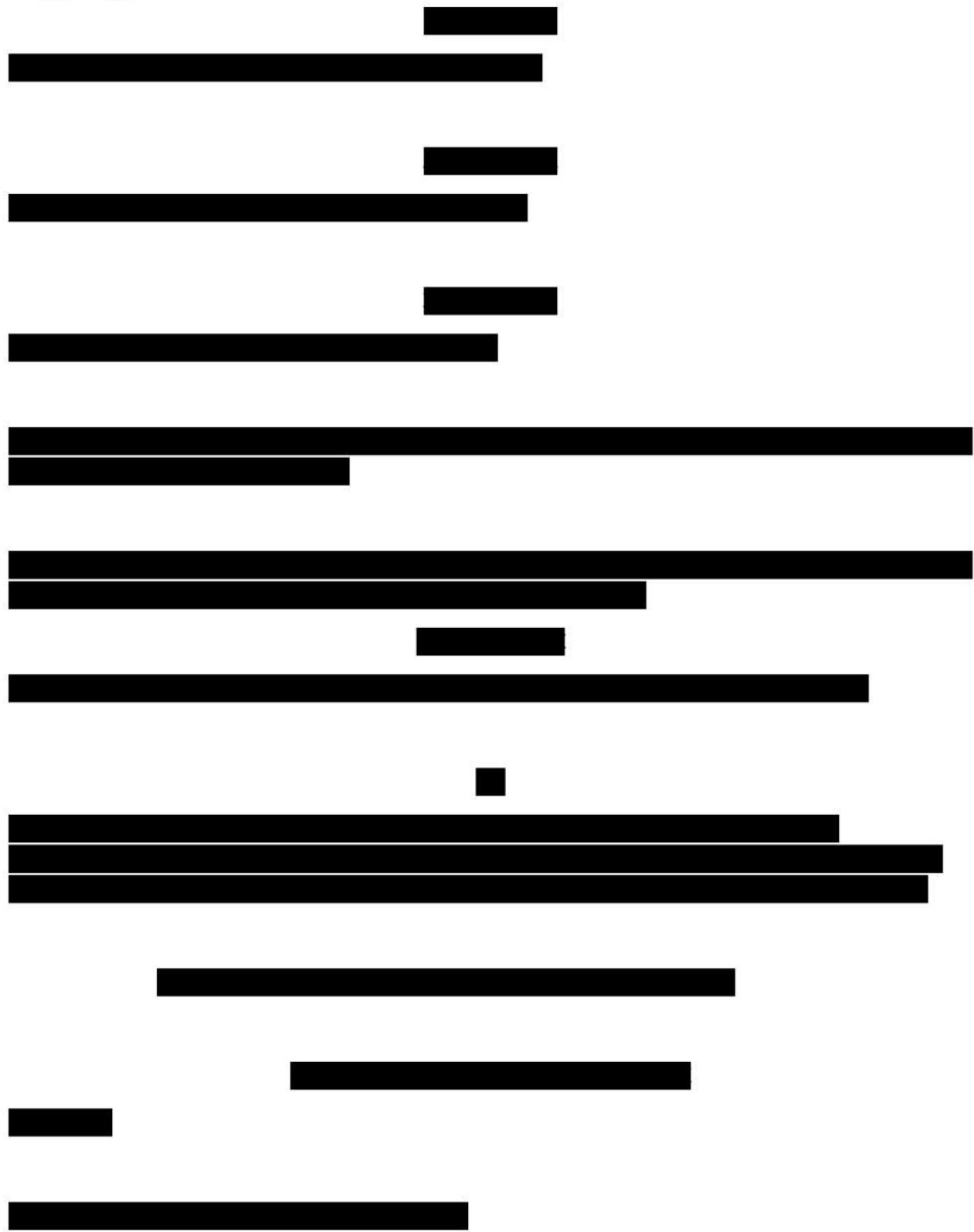
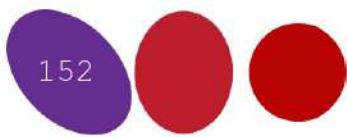
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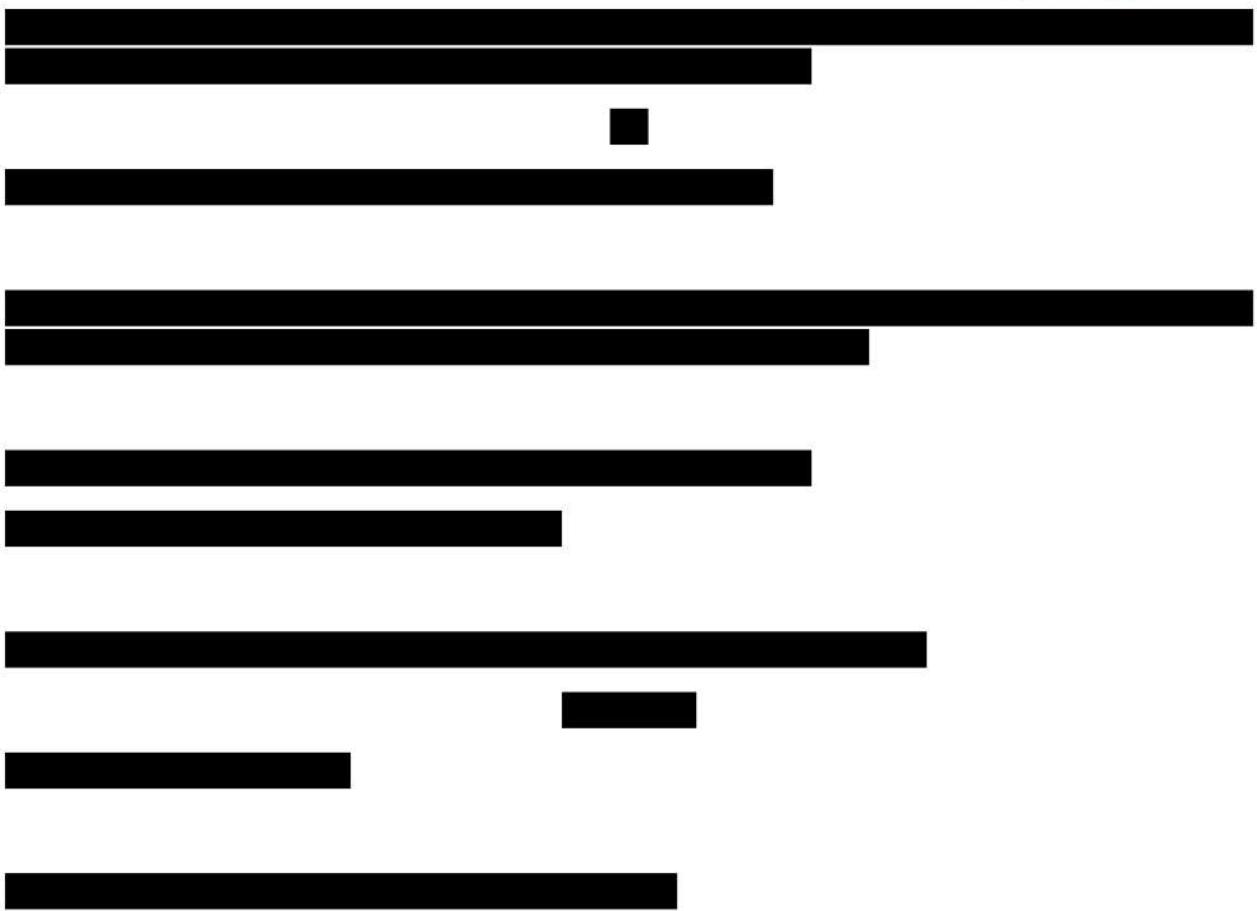
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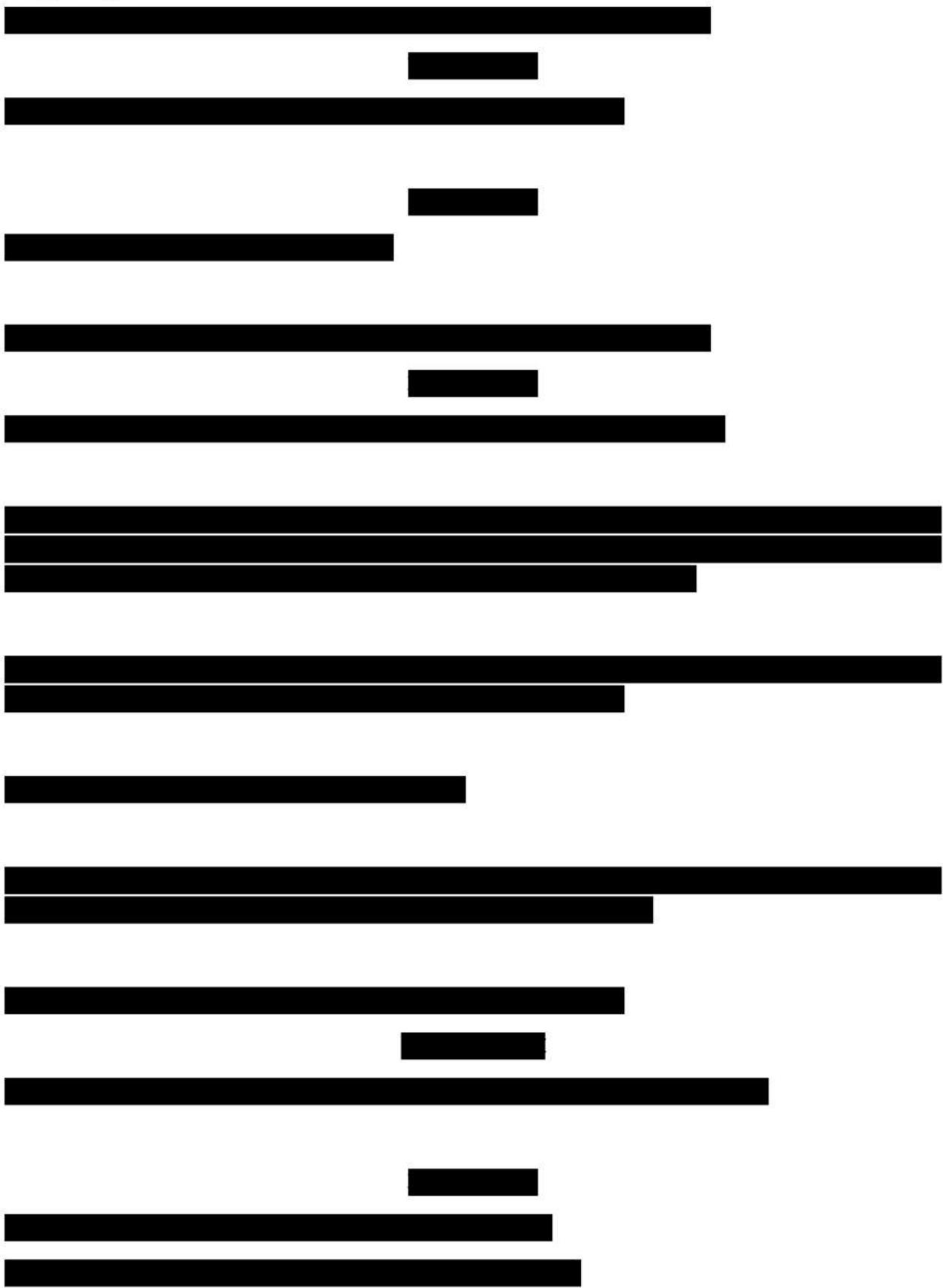
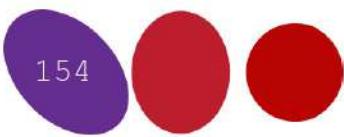






15a. FABRIC (reprise)



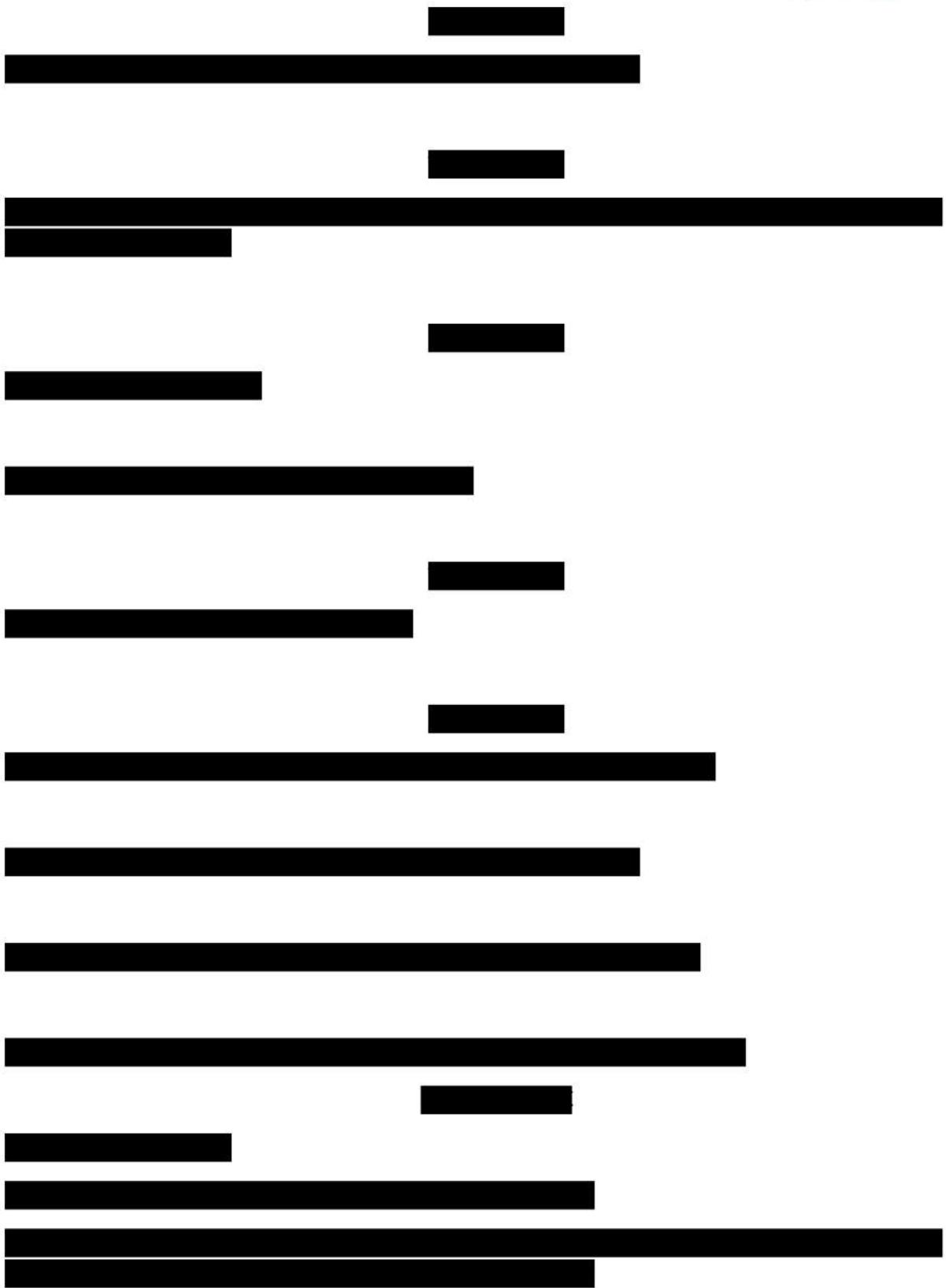


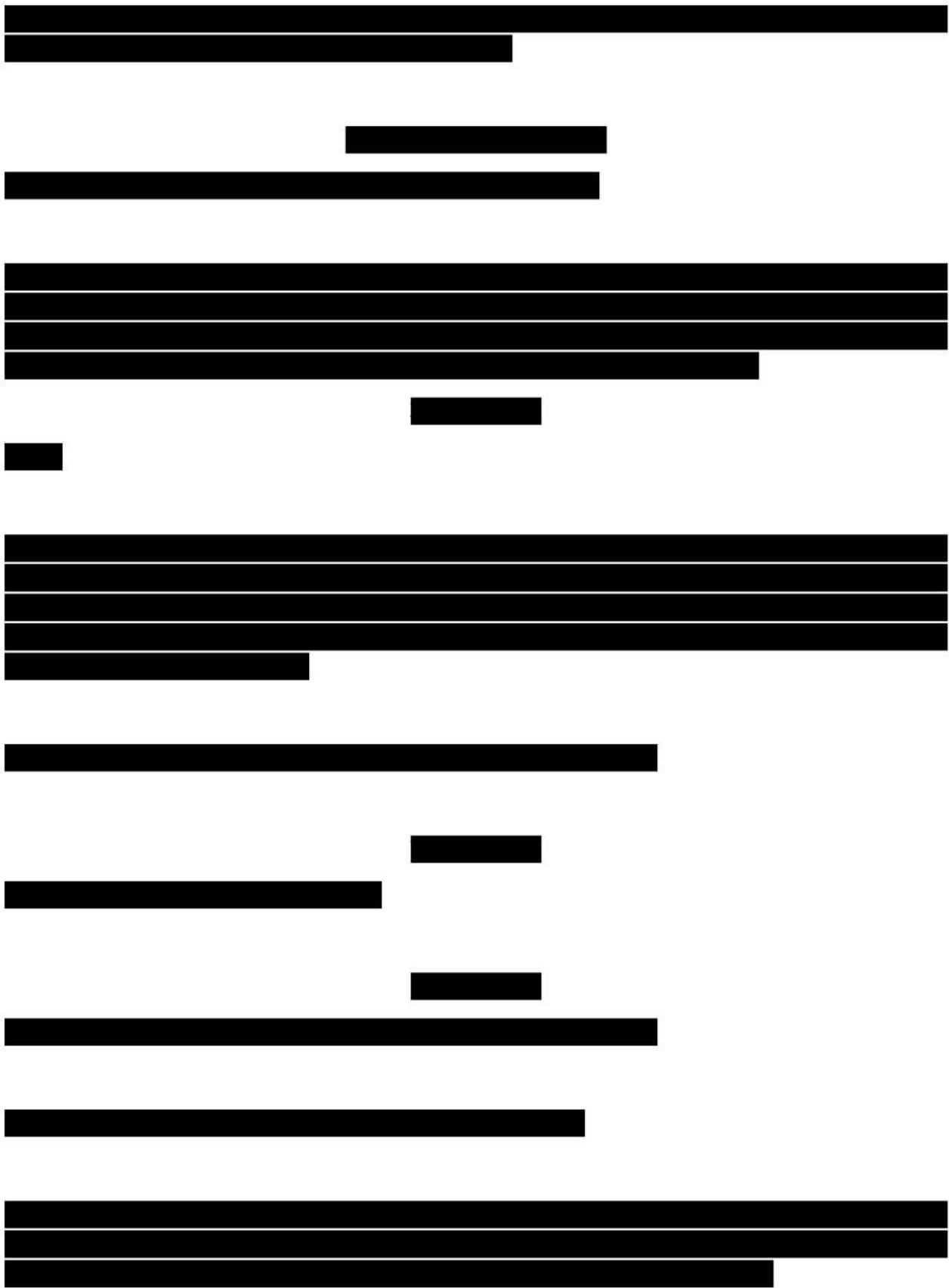
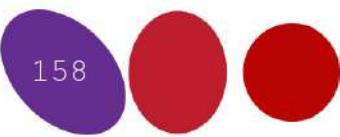


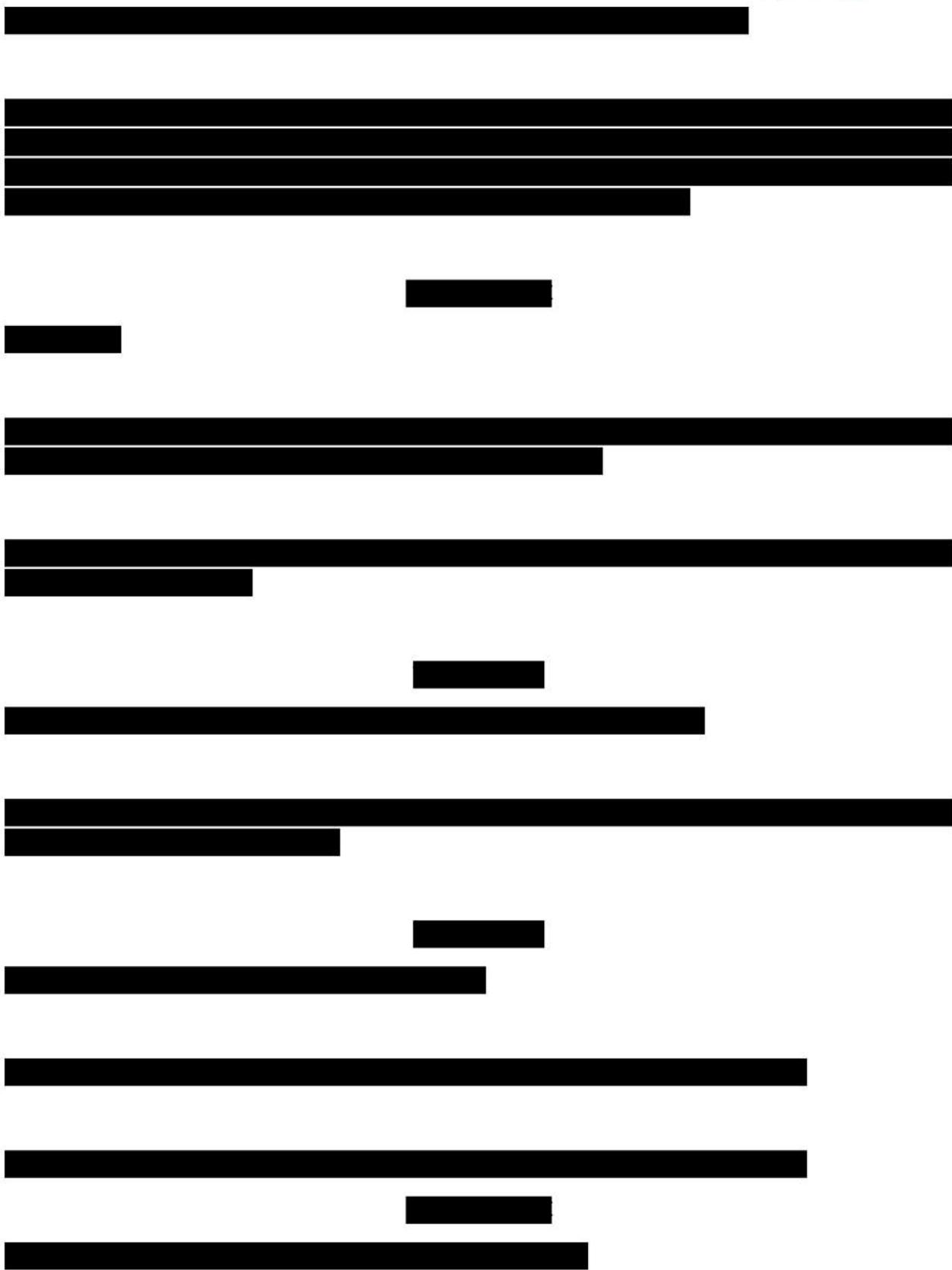
16a. POINT (reprise)

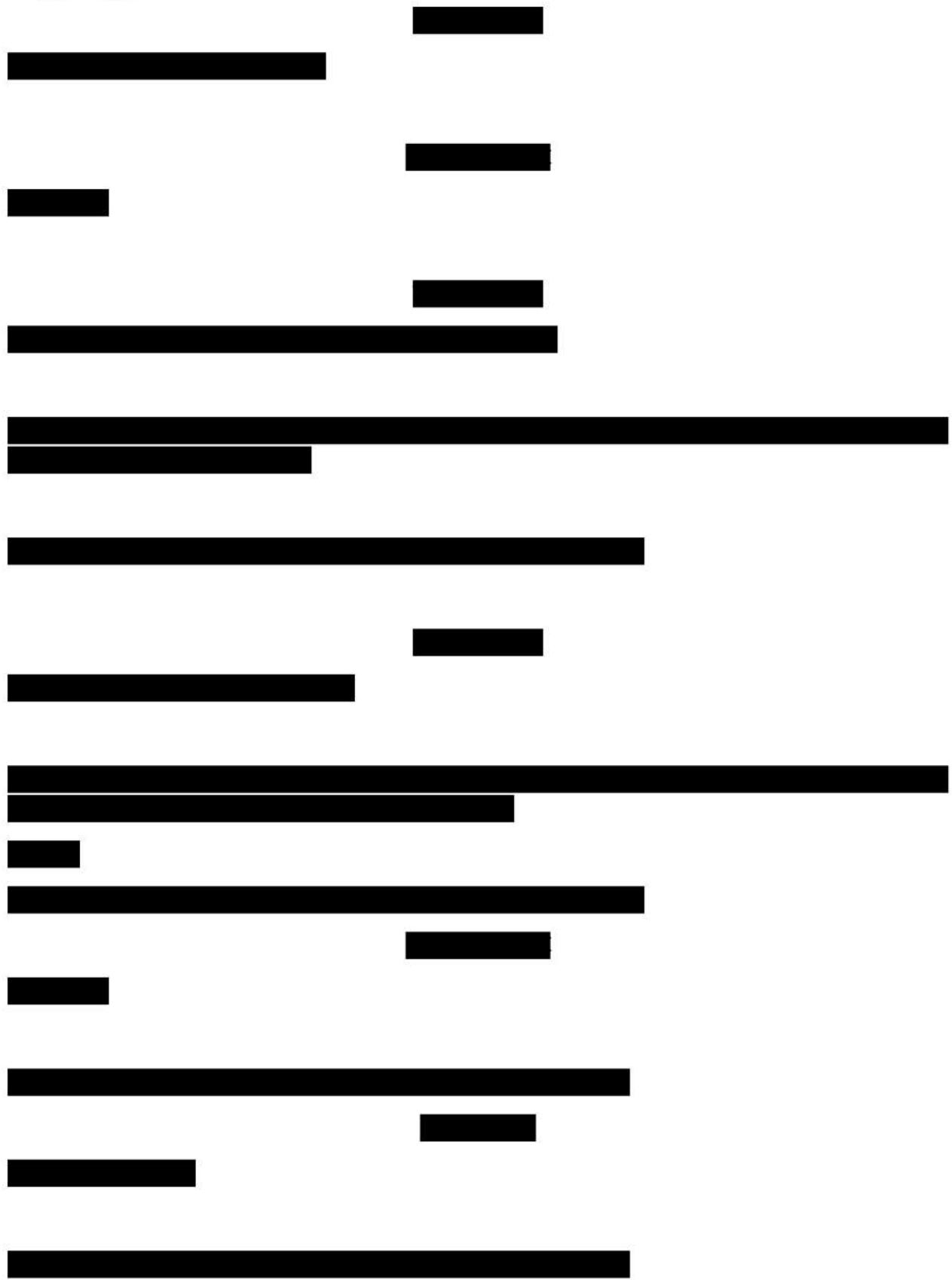
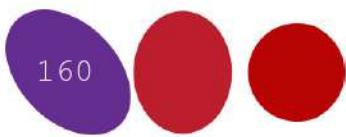


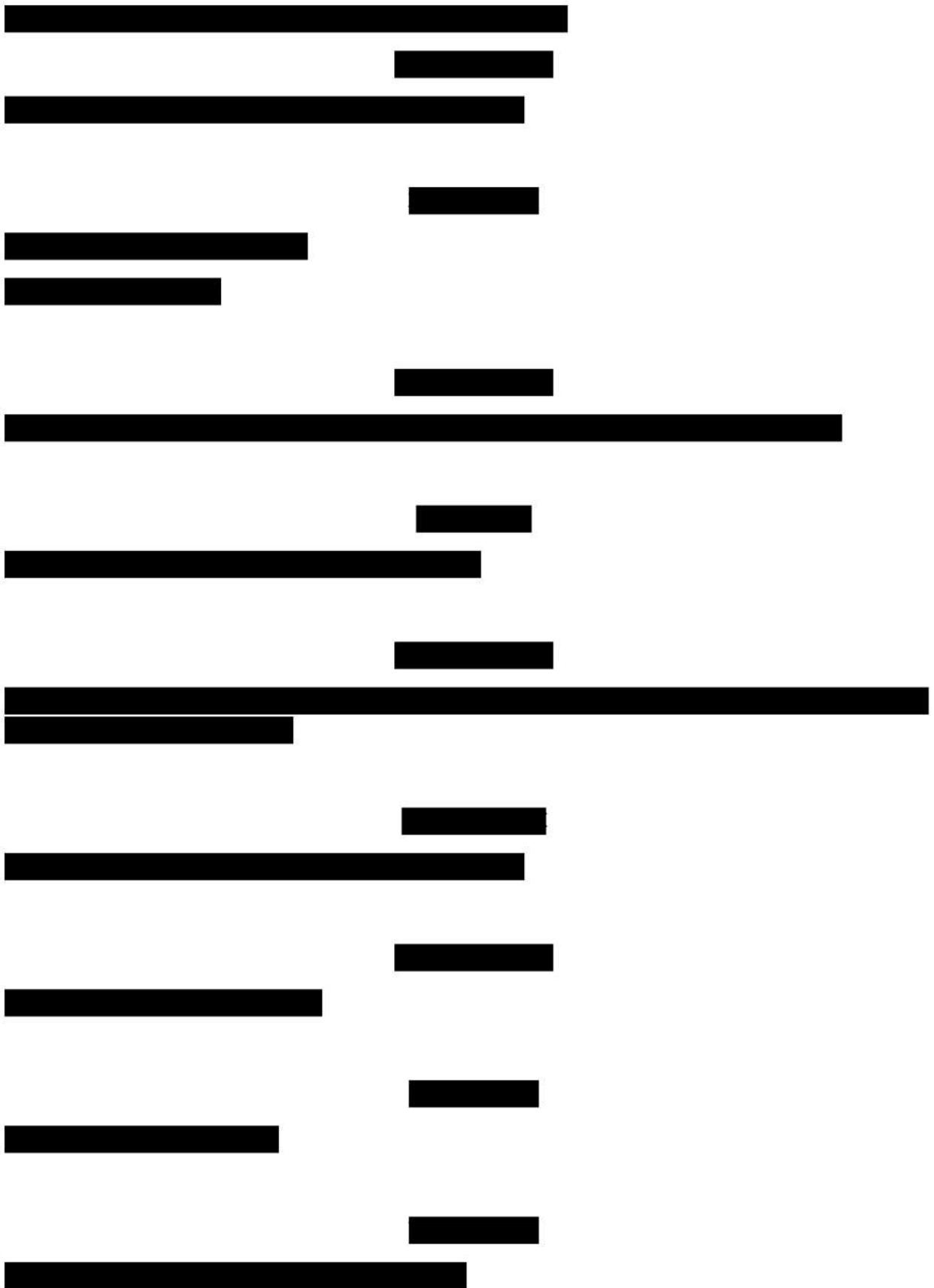
21. BIG RIP

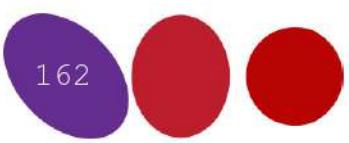






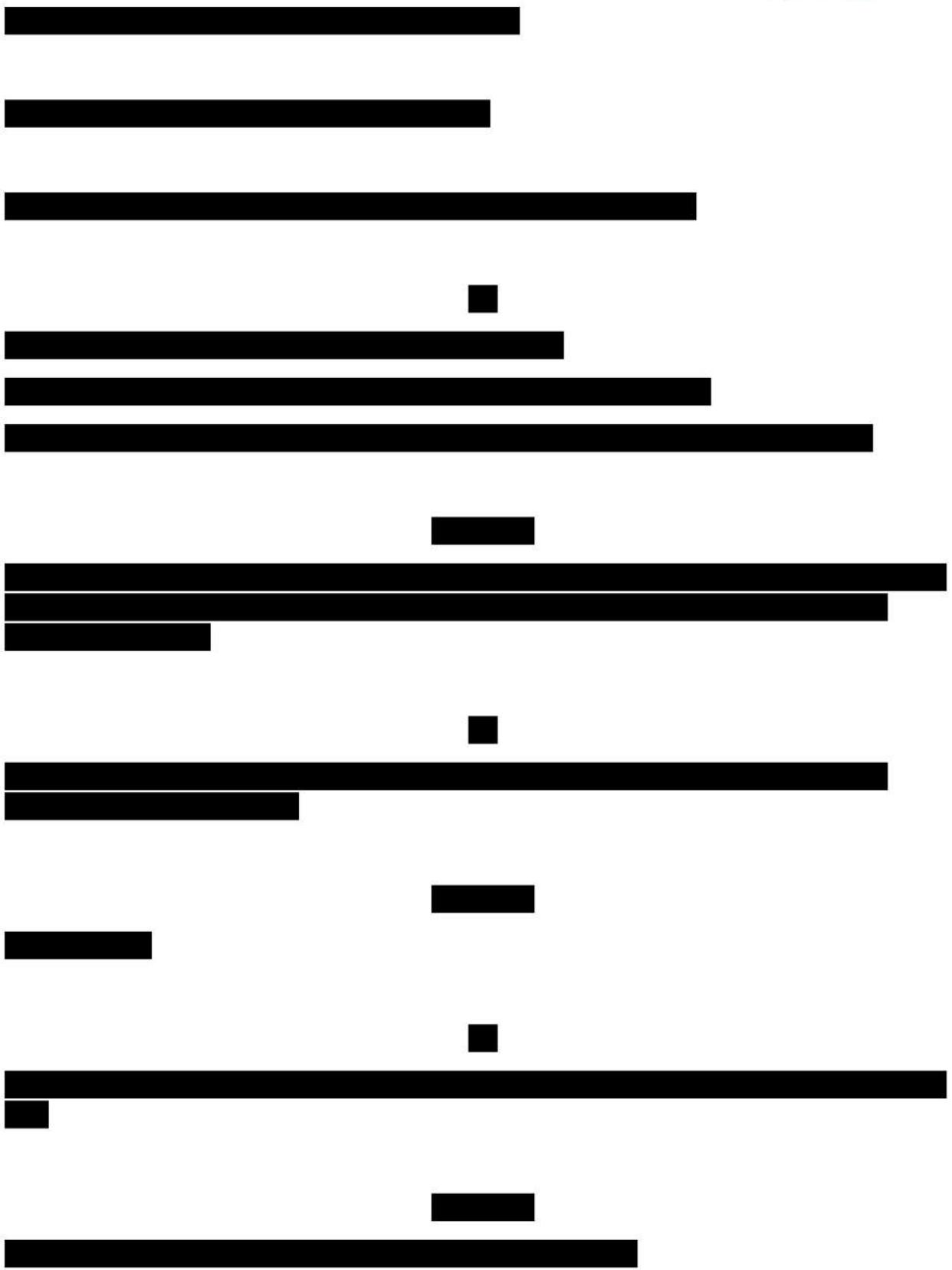
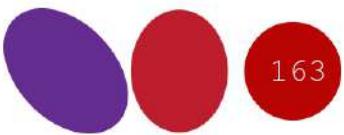




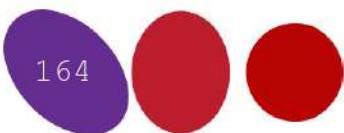


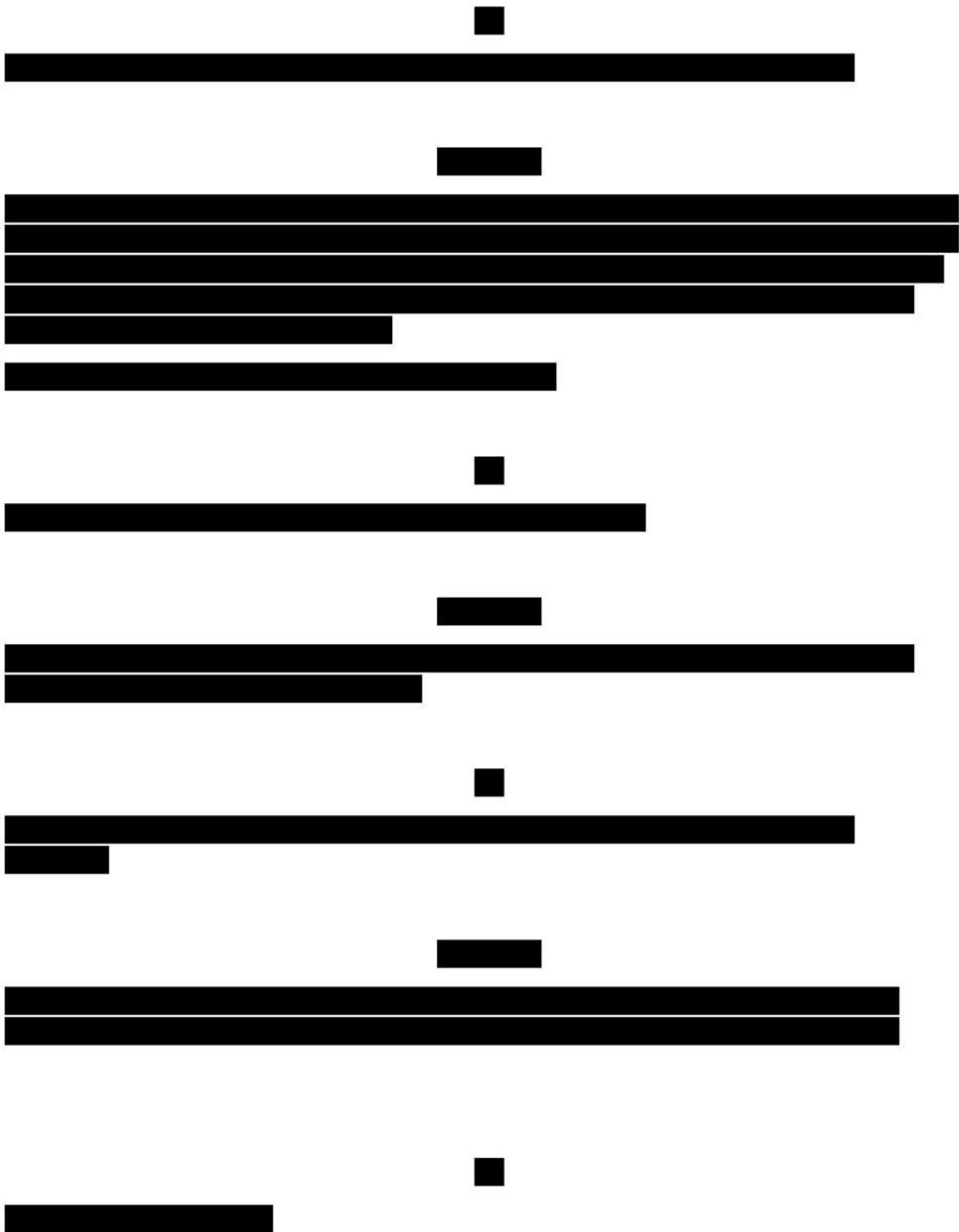
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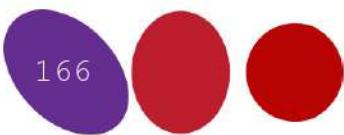




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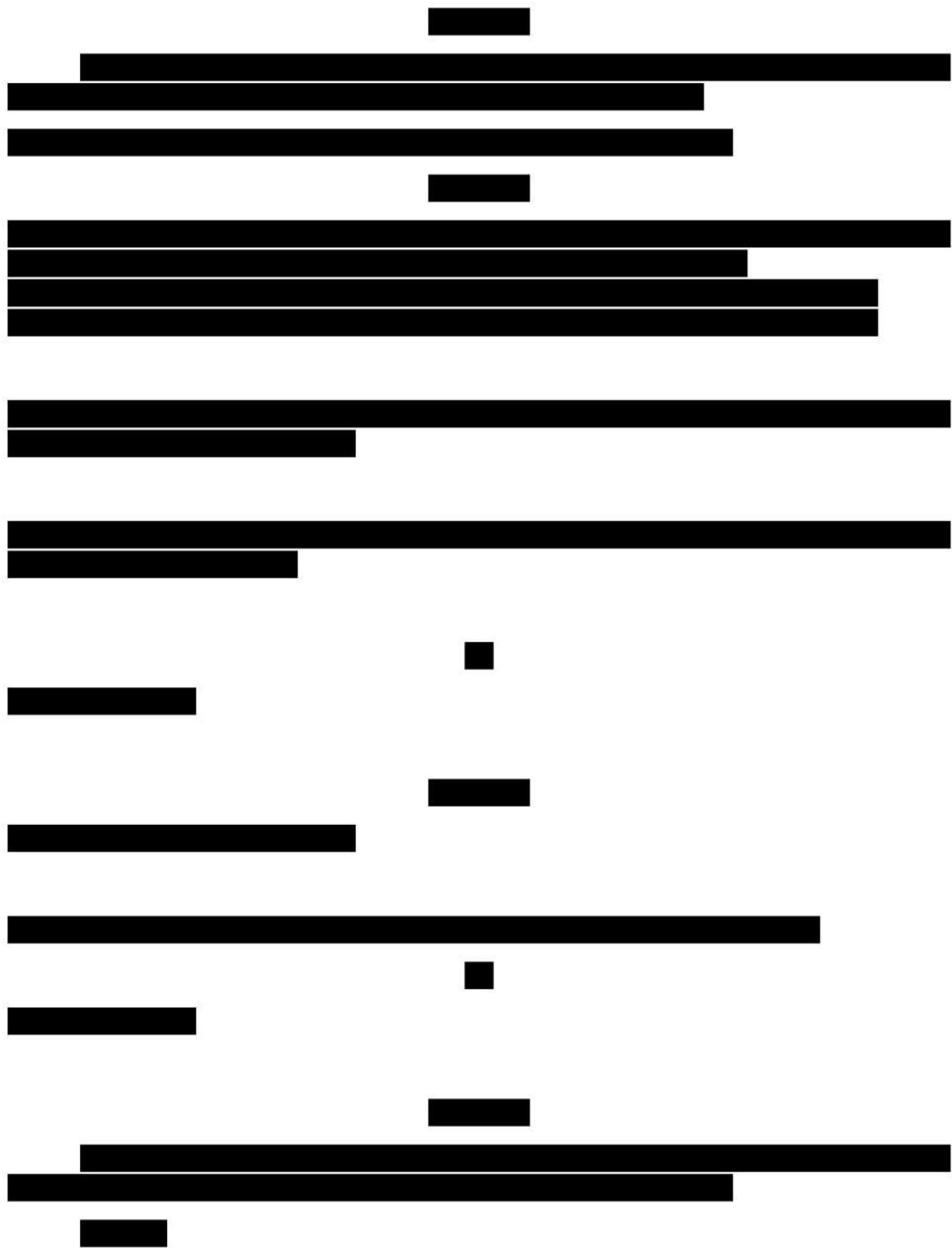


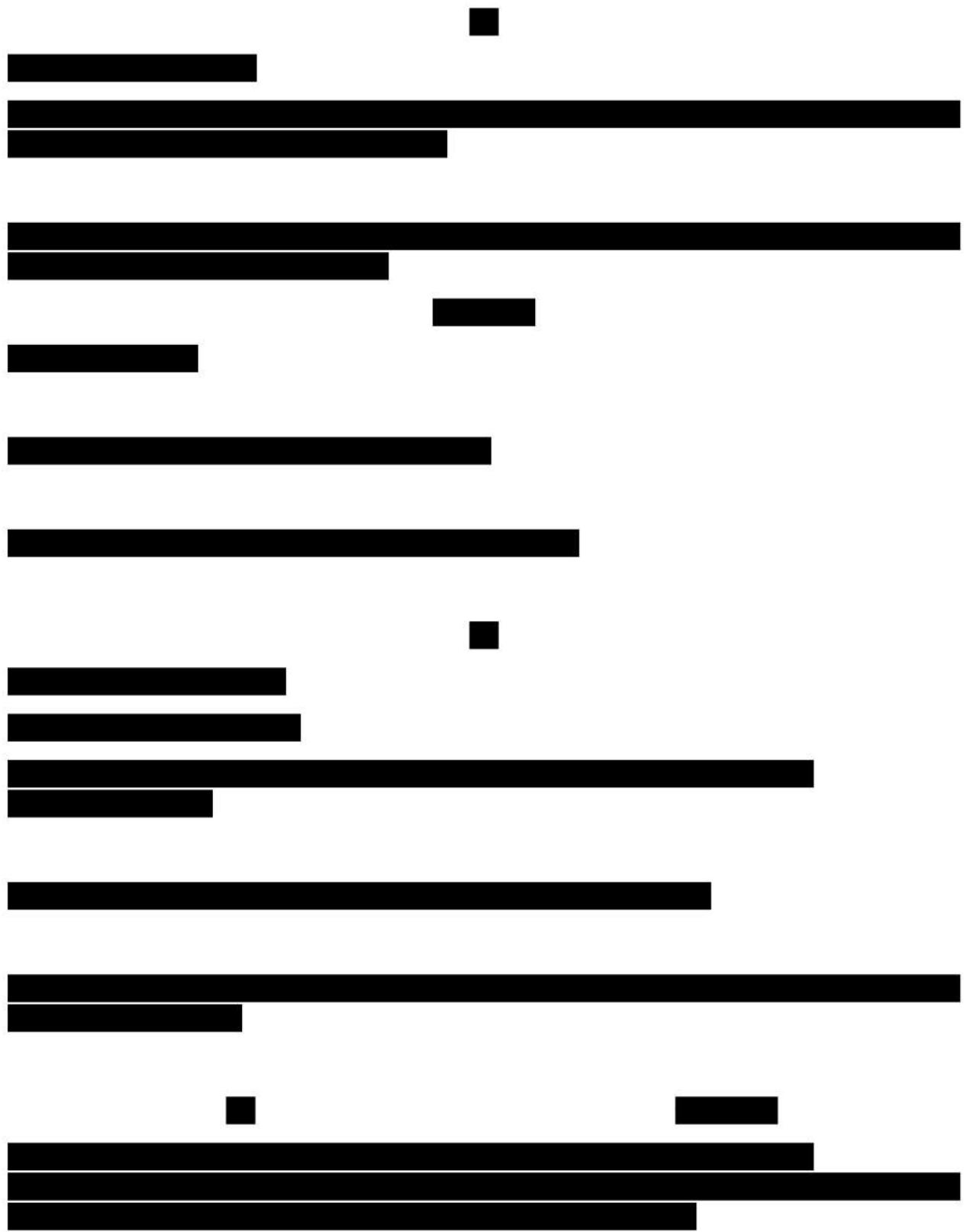
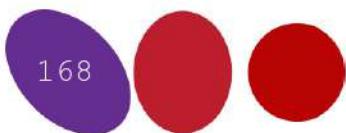




23. PARALLAX



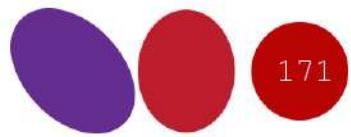




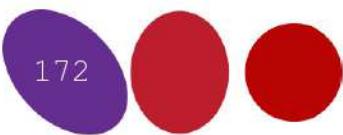
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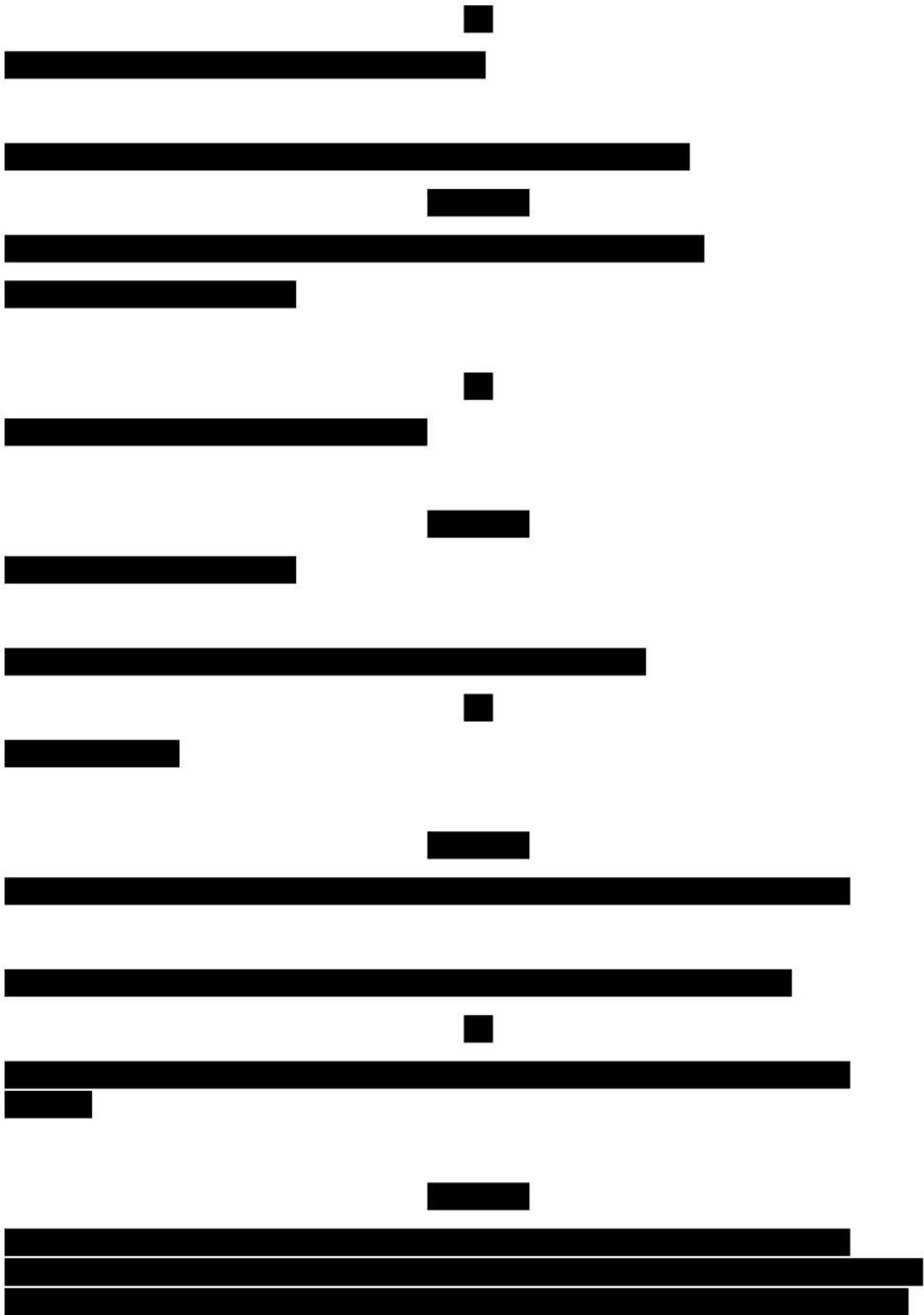
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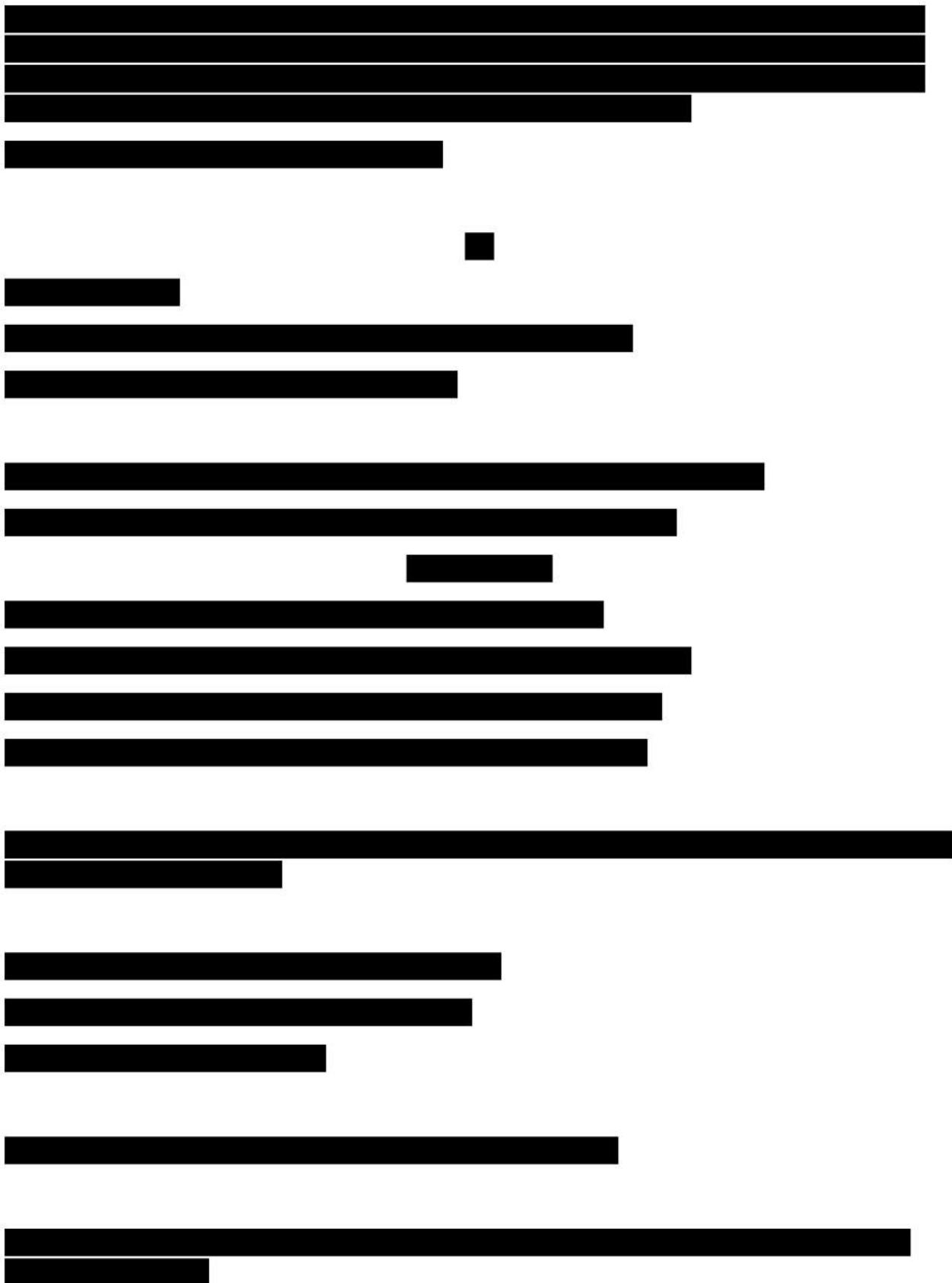
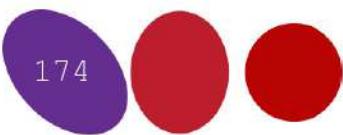
24. TANGENT



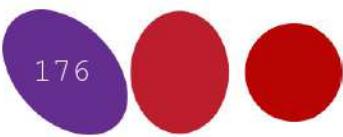
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22. IT'S ABOUT SPACETIME

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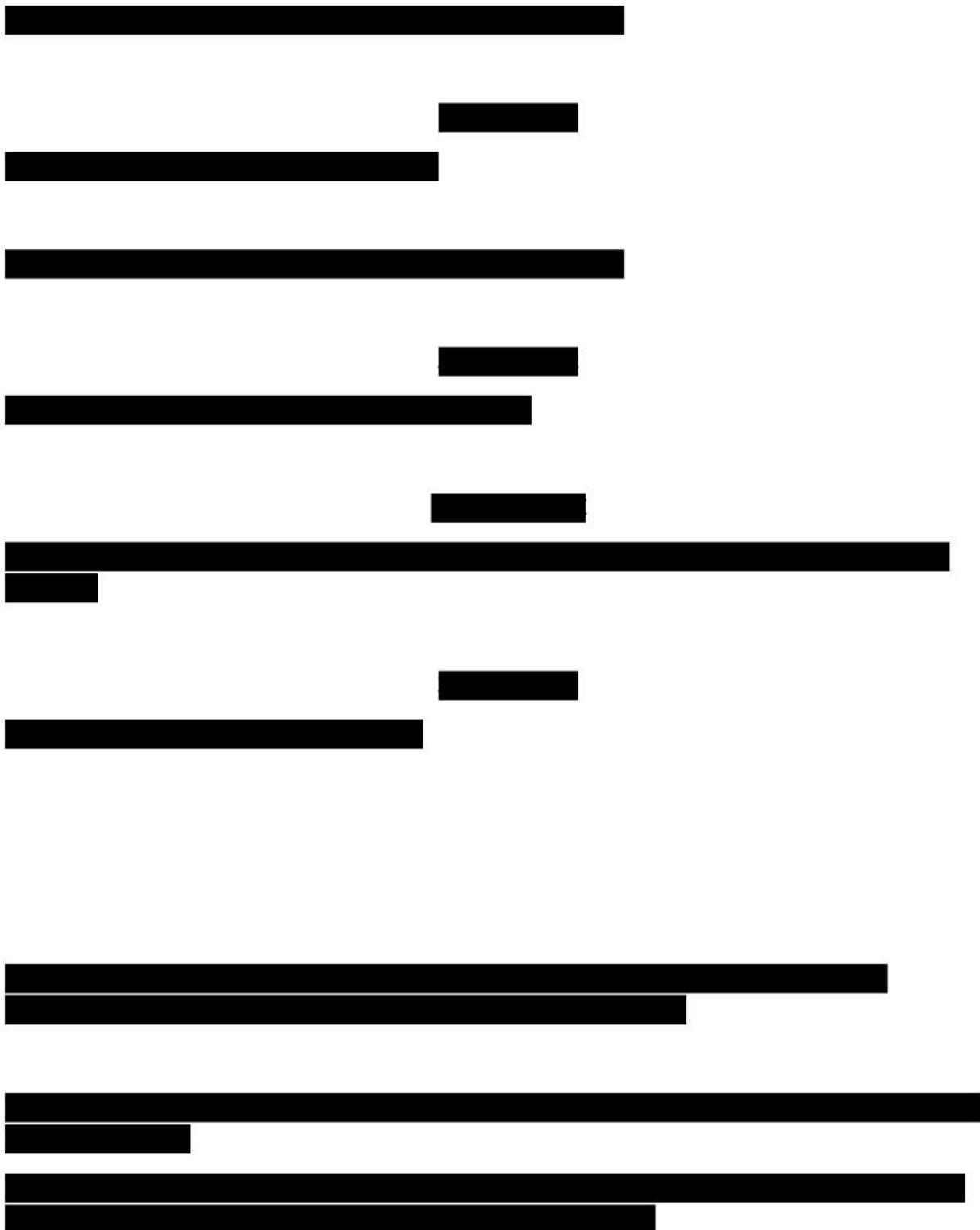
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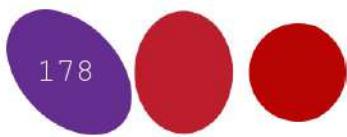
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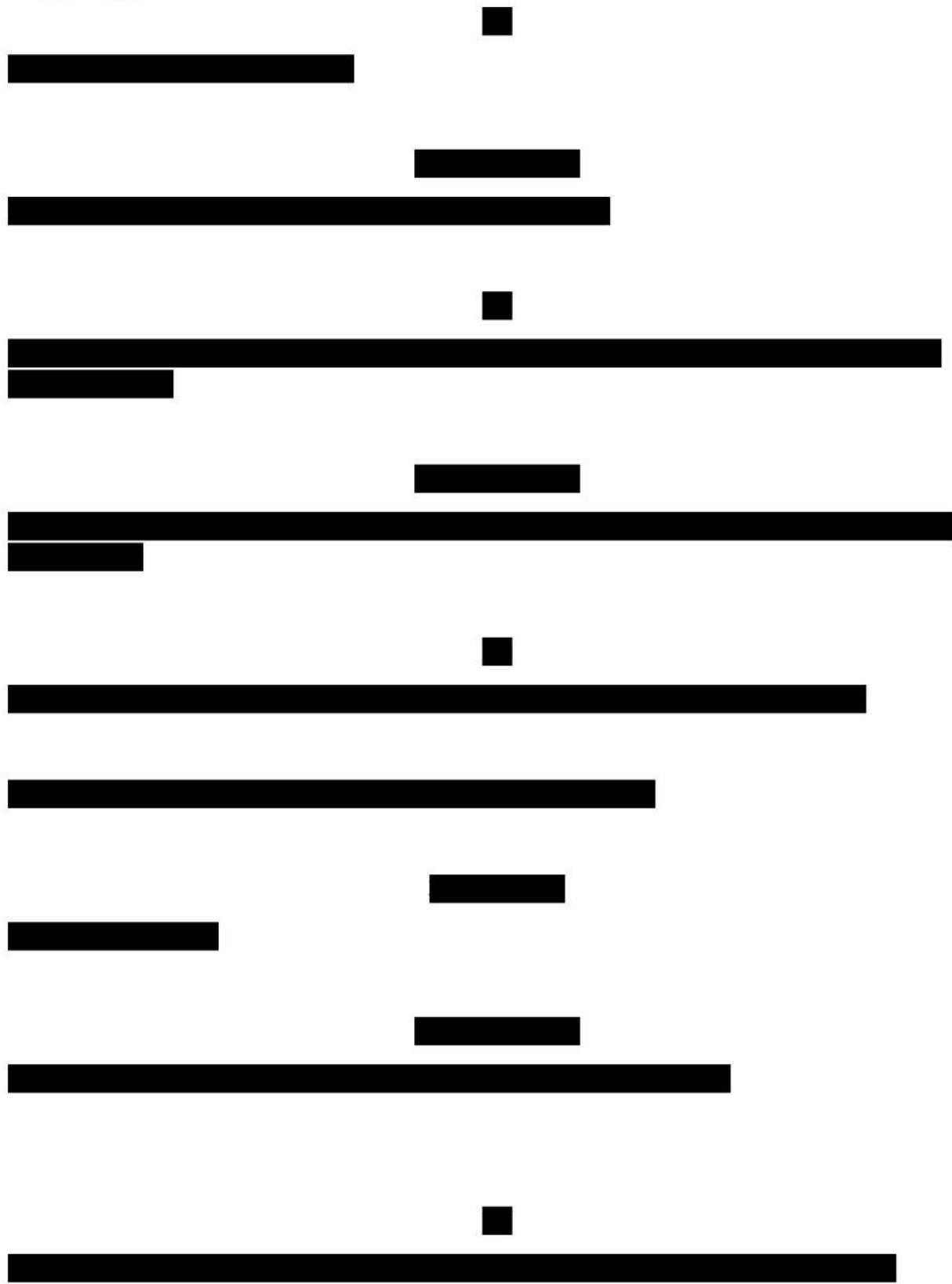
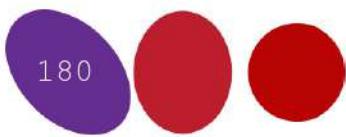
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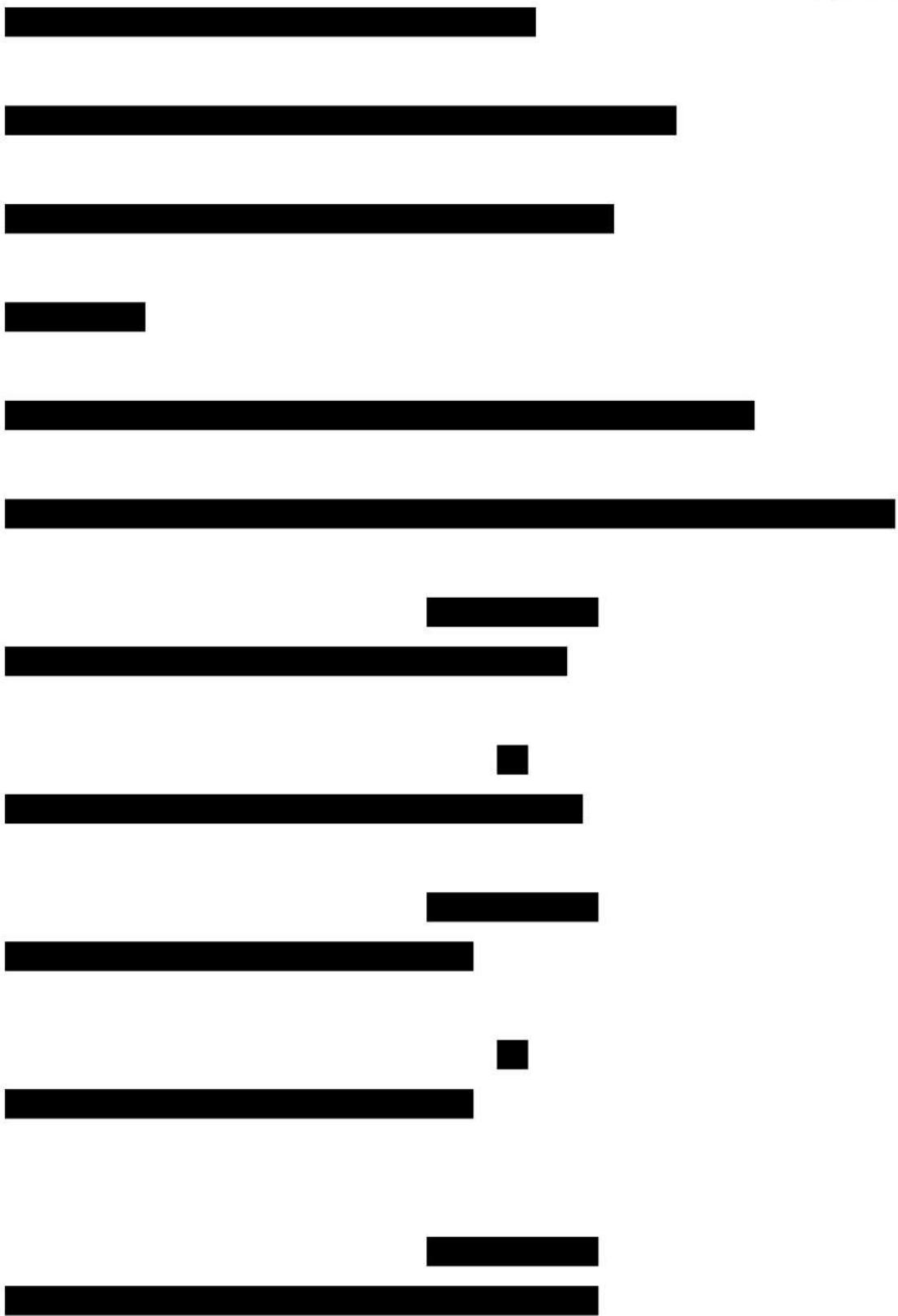
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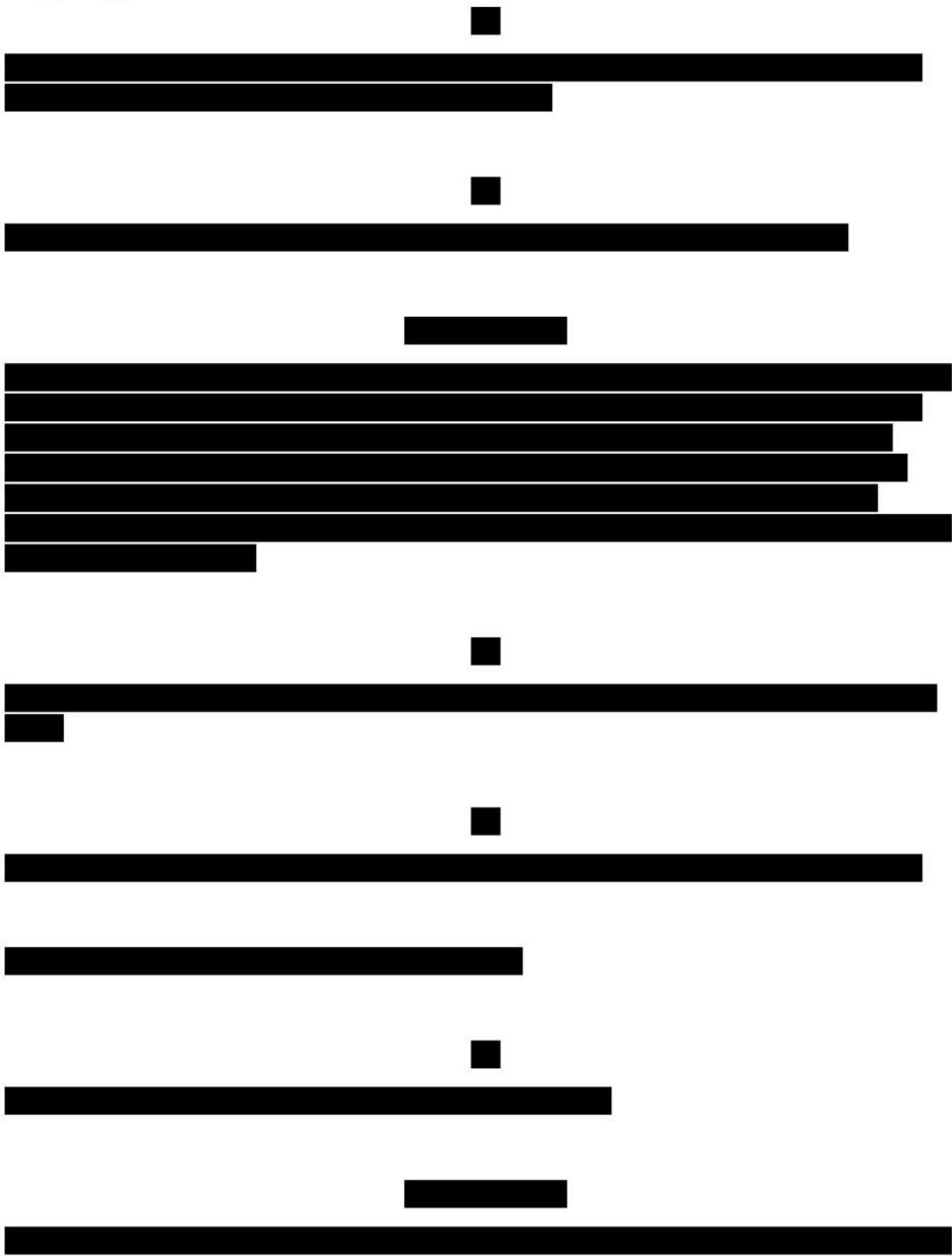
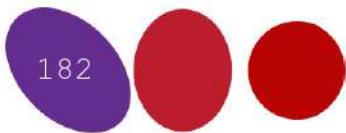


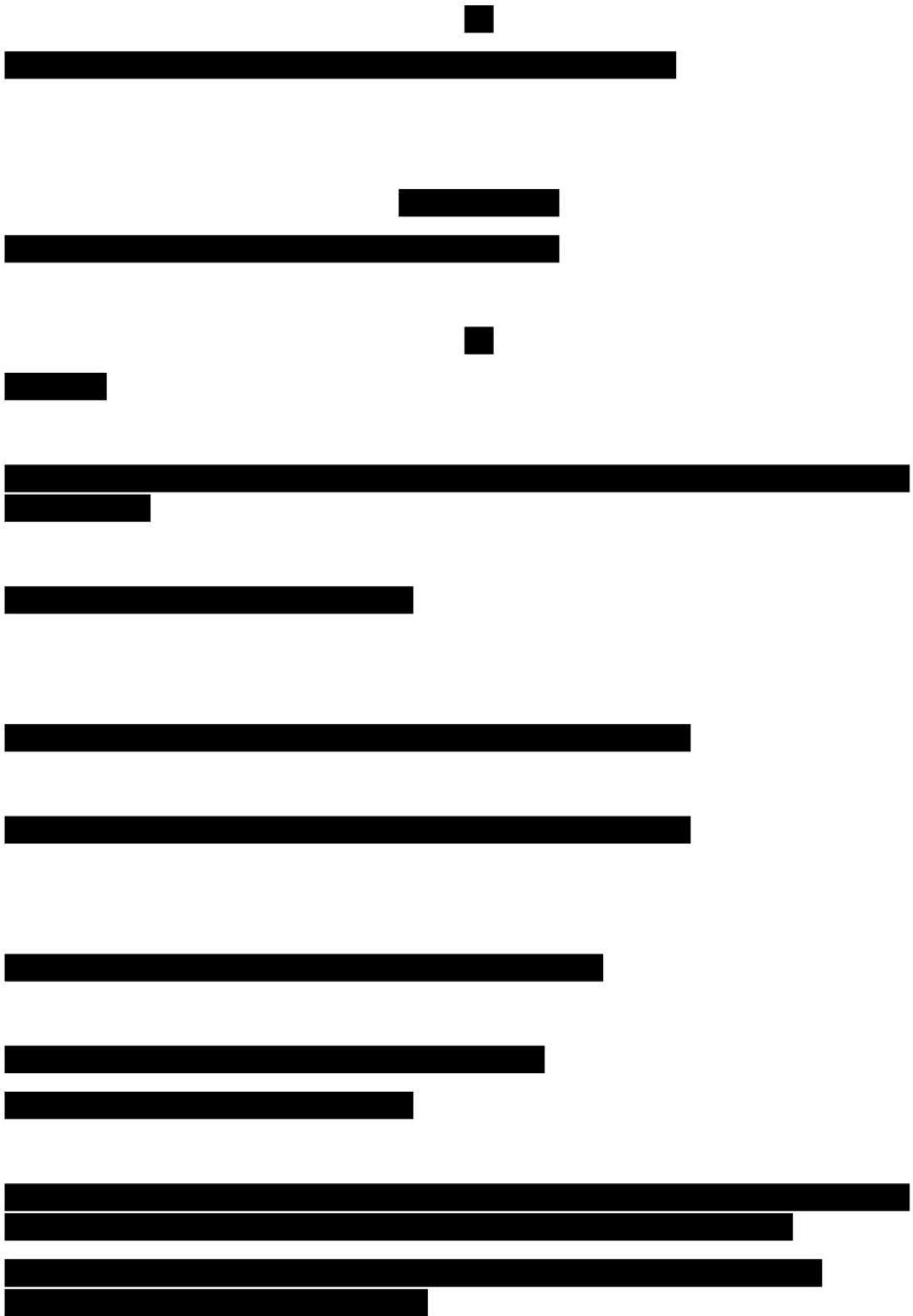


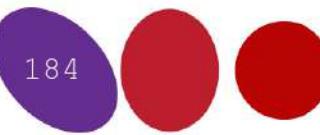












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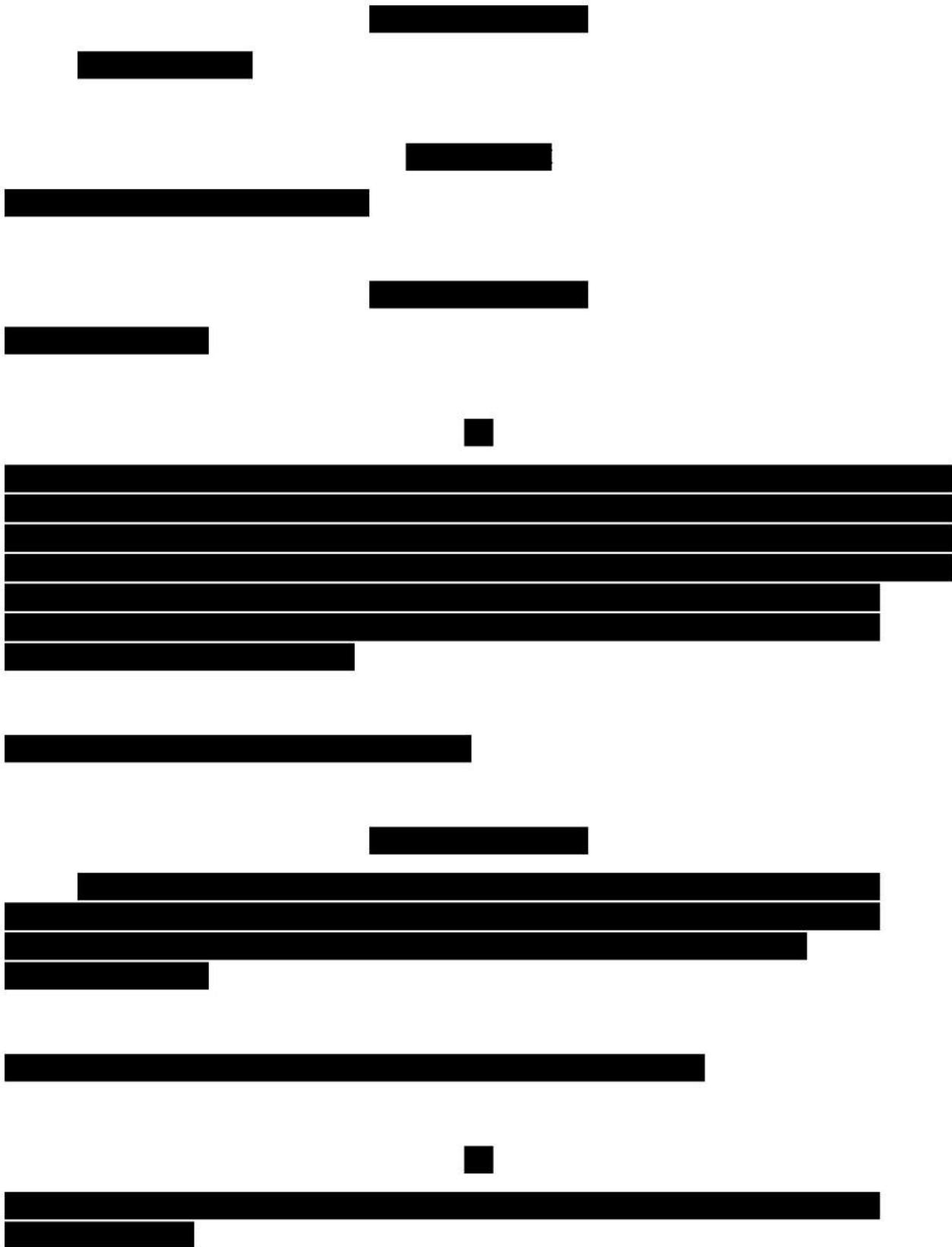
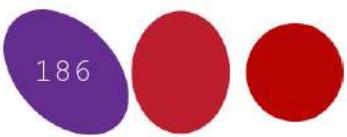
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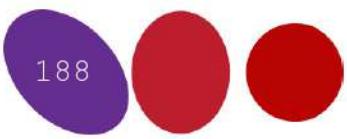
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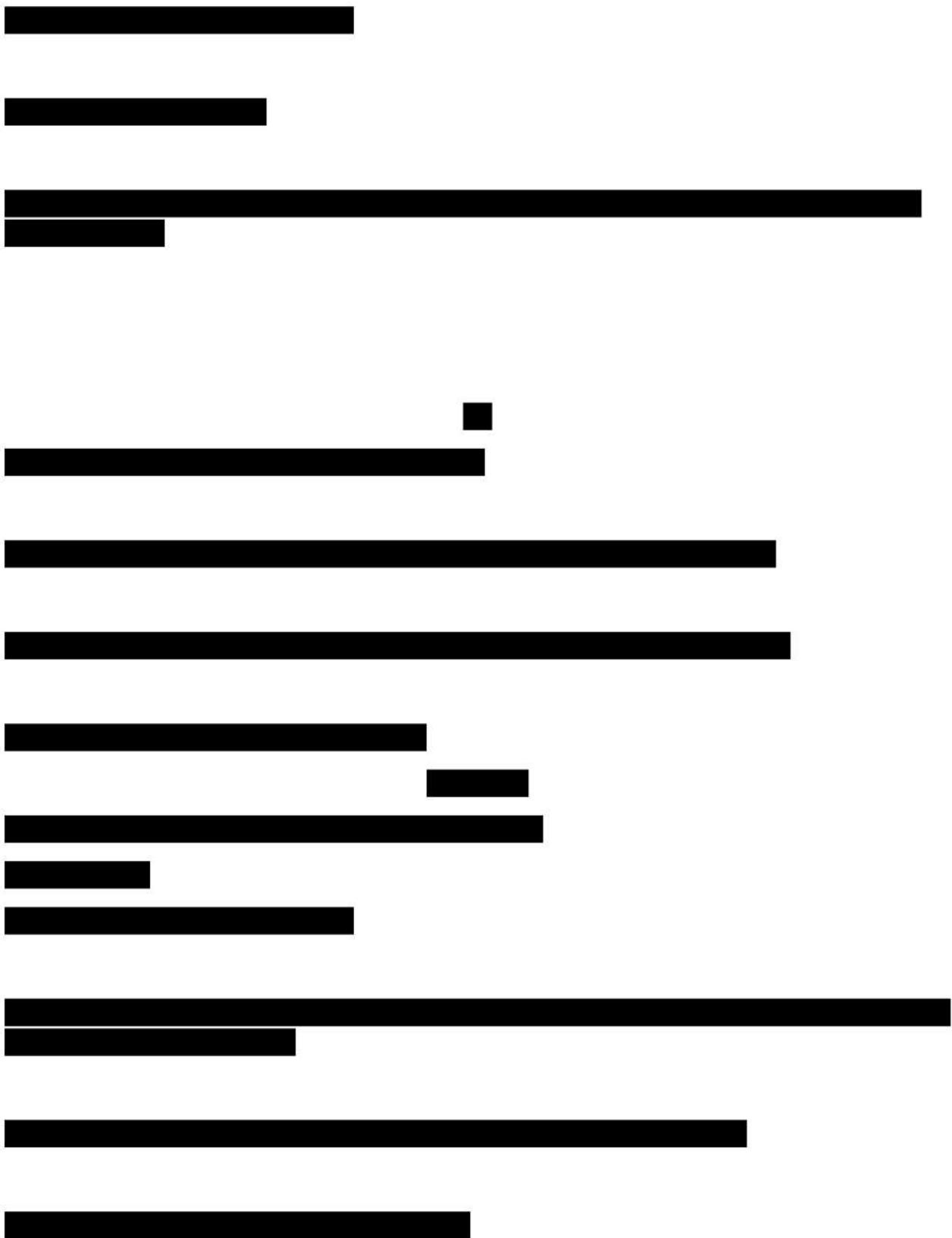
26. SHED LIGHT

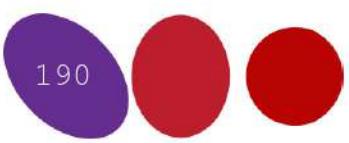


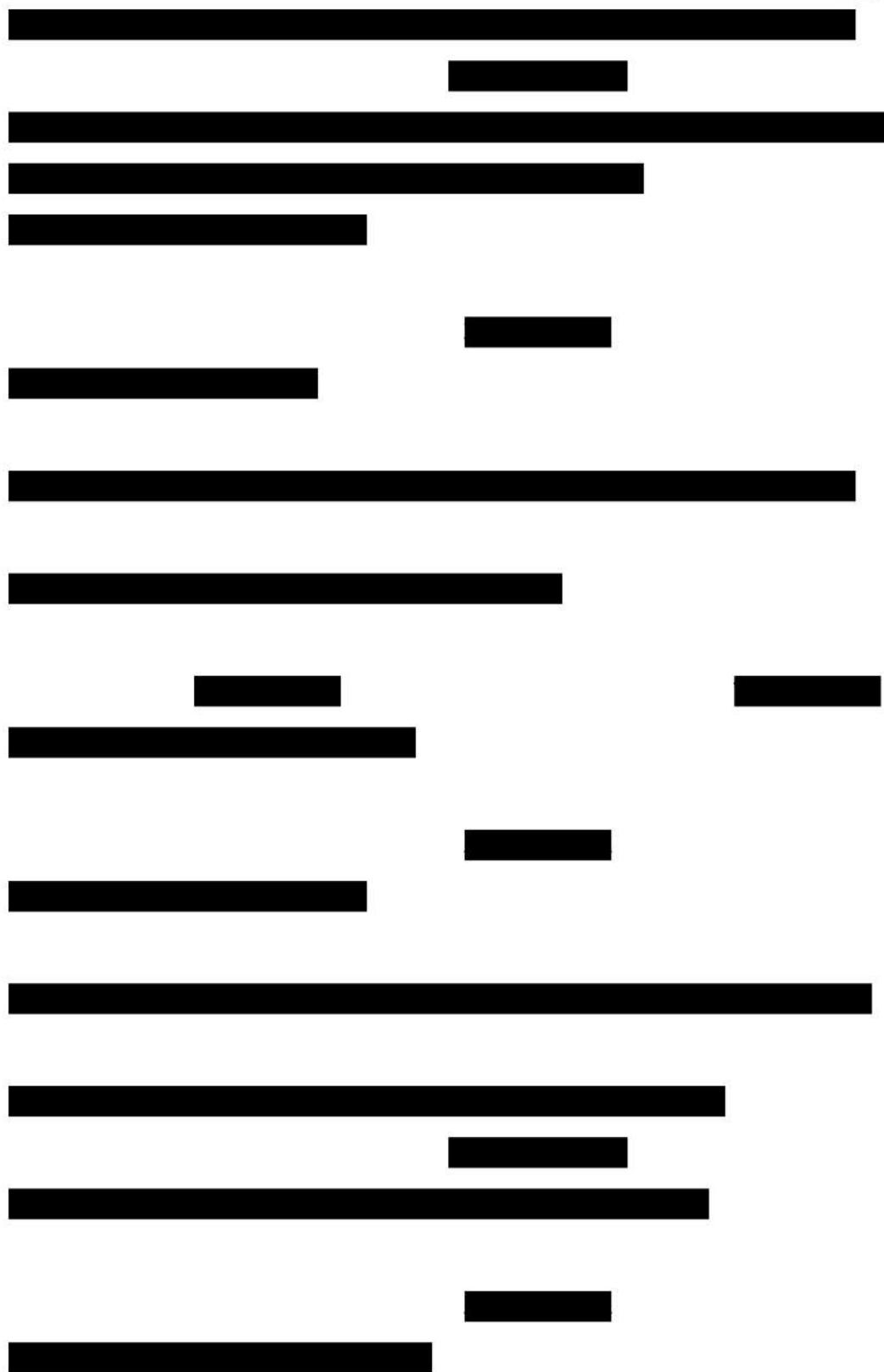


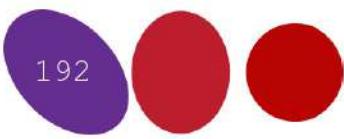


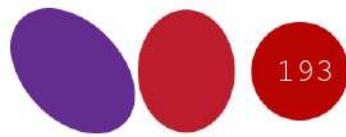












27. * (ASTERISK)

ANSWER

Page 1

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Page 1

[REDACTED]

Page 1

ANSWER The answer is 1000.

ANSWER The answer is 1000.

[REDACTED]

Figure 1. A schematic diagram of the experimental setup. The light source (labeled 1) emits light onto a beam splitter (BS). The BS reflects the light onto a lens (lens 1). The lens focuses the light onto a sample (labeled 2). The sample is placed on a stage (labeled 3). The stage is connected to a motor (labeled 4). The motor is connected to a computer (labeled 5). The computer controls the motor to move the stage. The stage has a scale (labeled 6). The sample is a thin film of a polymer. The polymer is a mixture of two different types of polymer chains. The polymer chains are randomly oriented. The sample is placed on a substrate (labeled 7). The substrate is a glass plate. The glass plate is placed on a table (labeled 8). The table is made of wood. The table is located in a room (labeled 9). The room is a laboratory. The laboratory is used for research. The research is related to the properties of polymers. The properties of polymers are studied by measuring the optical properties of the sample. The optical properties are measured by using a spectrometer. The spectrometer is connected to the computer. The computer processes the data from the spectrometer. The data is used to determine the properties of the polymer sample.

[REDACTED]

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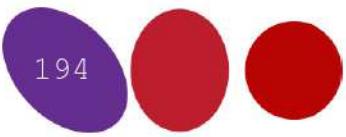
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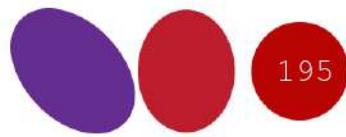
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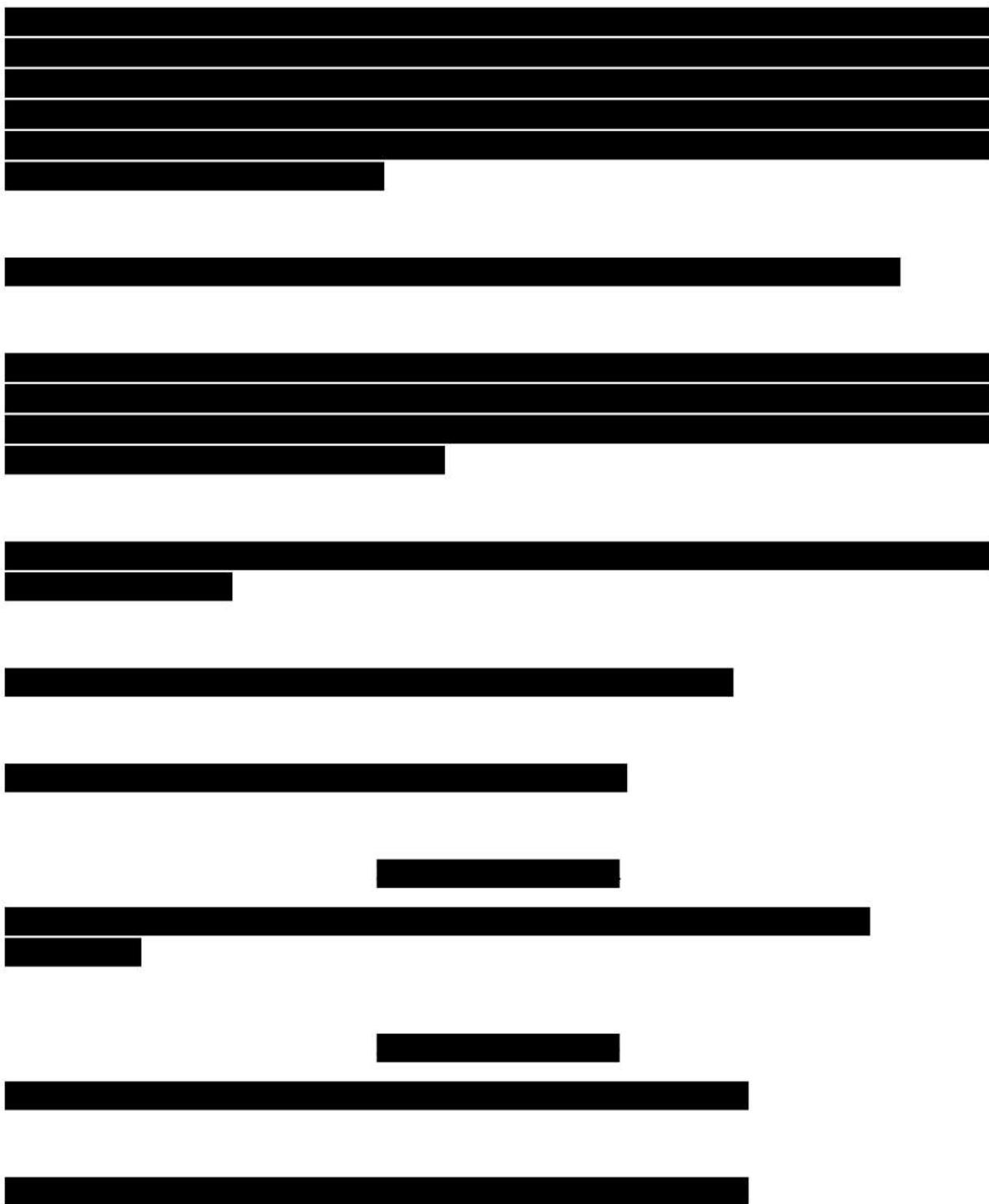
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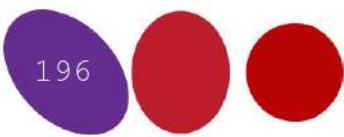
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28. HEARTS IN THE RIGHT PLACE





[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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29. (THE SPAGHETTIFICATION OF) ZENITH

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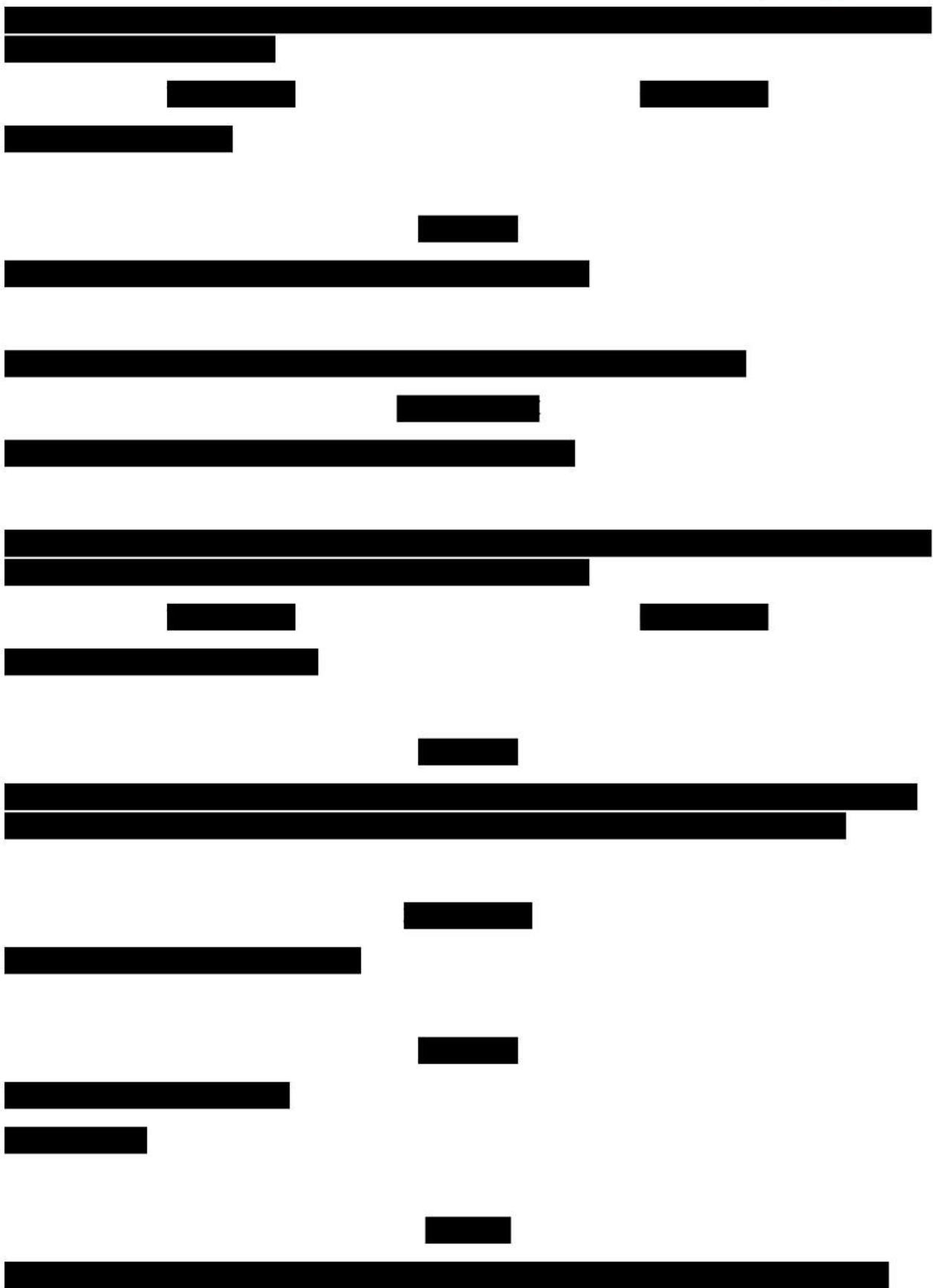
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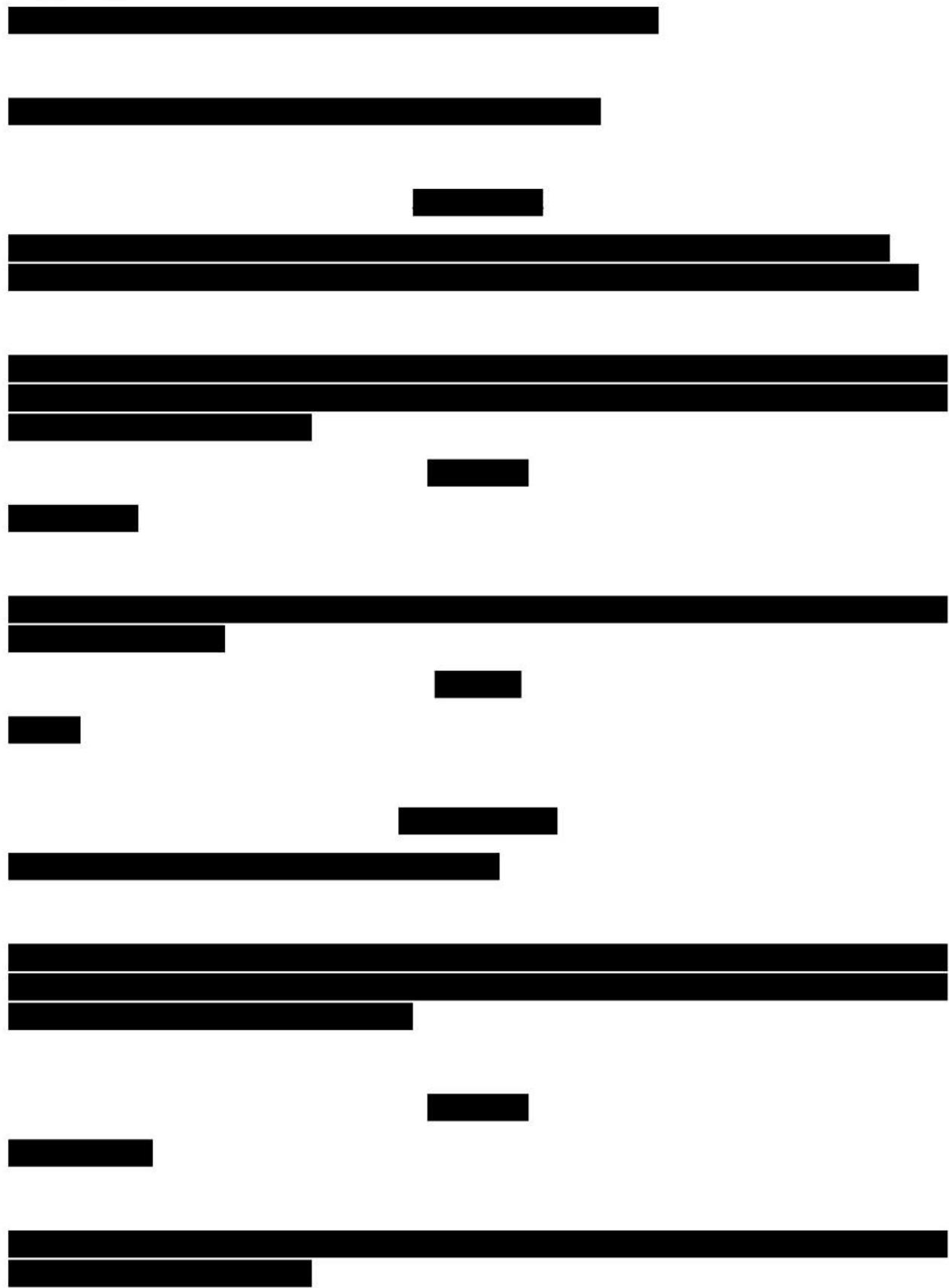
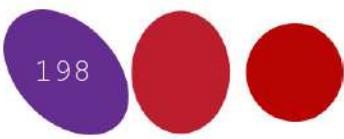
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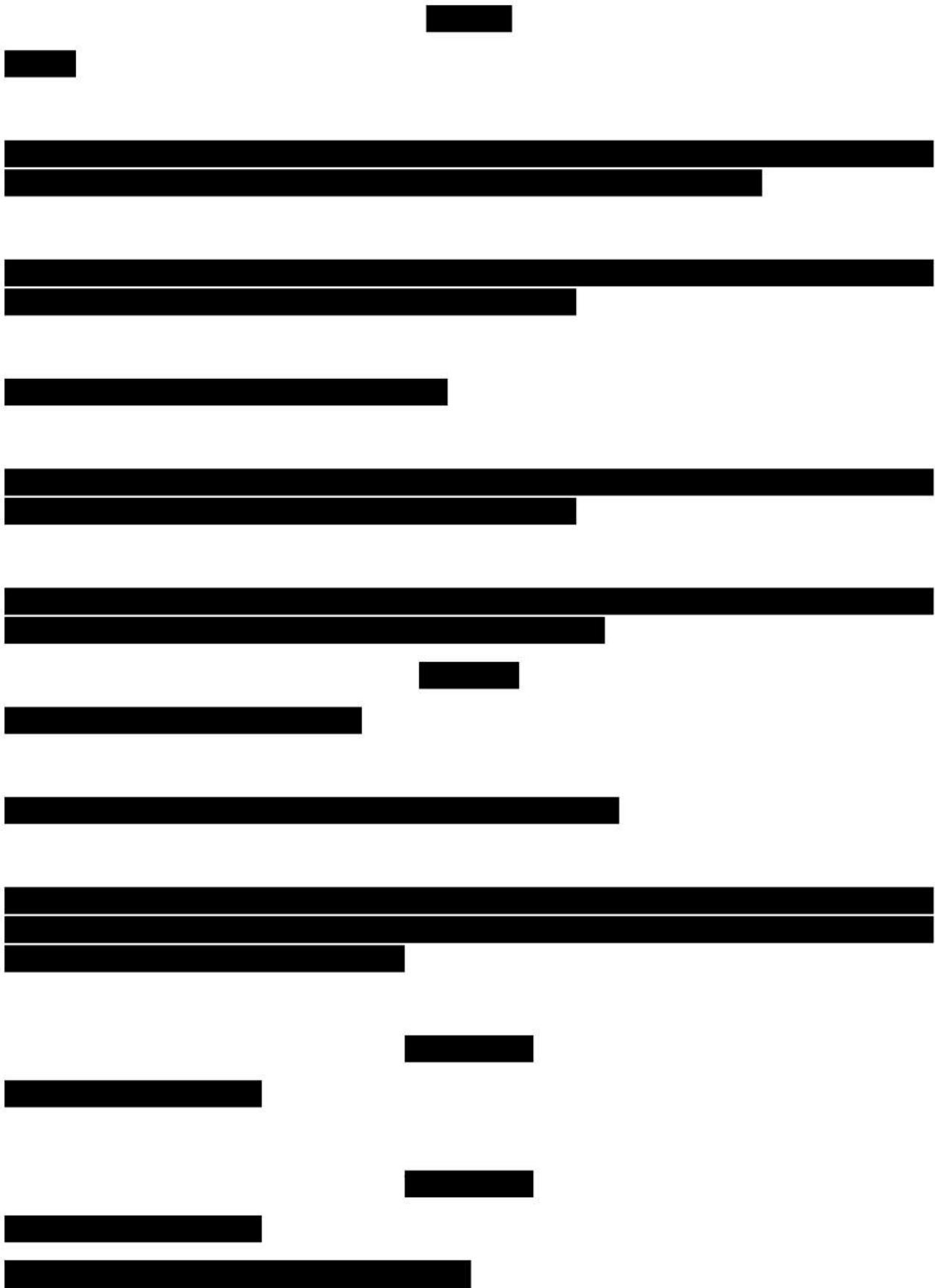
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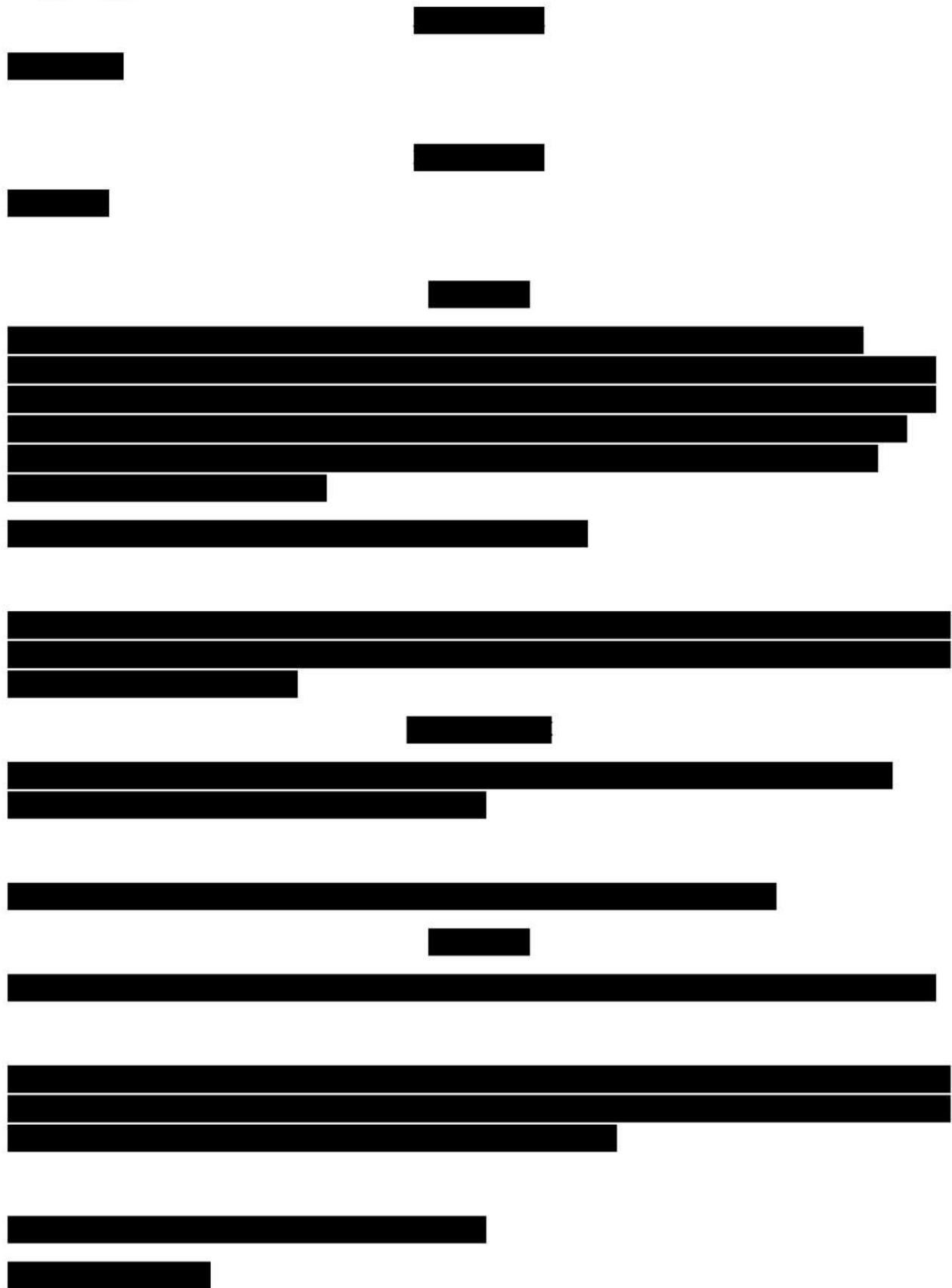
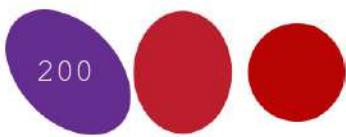
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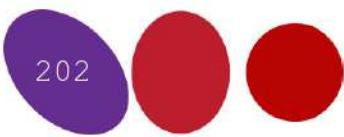












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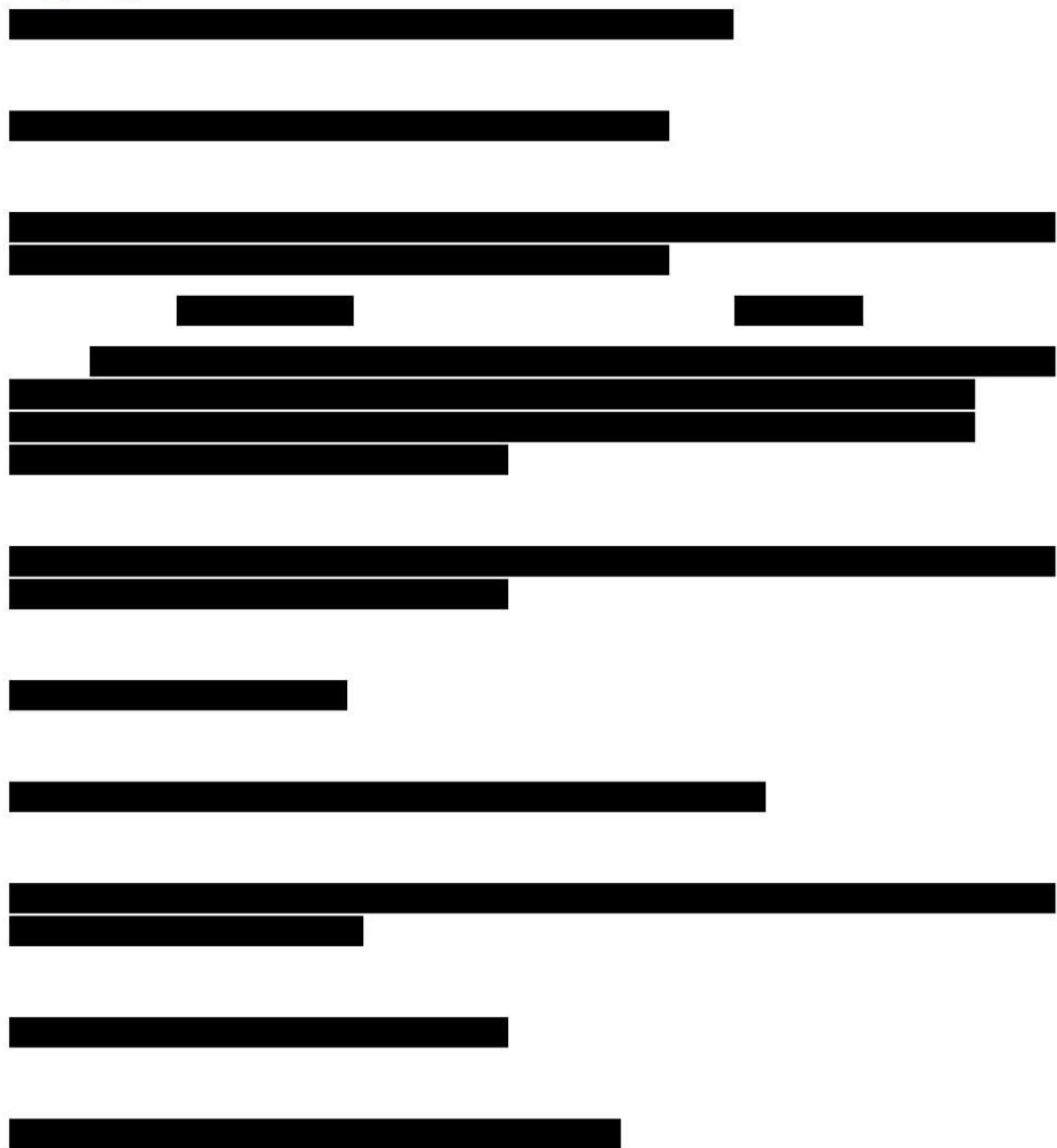
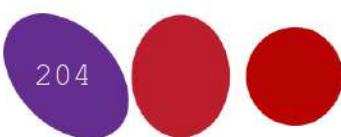
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30. BIG CRUNCH





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ACT III

31. BIG BOUNCE

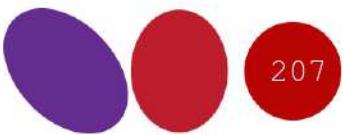


Figure 1. A schematic diagram of the experimental setup for the measurement of the absorption coefficient of the sample.

100

10 of 10

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Page 1

10 of 10

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10 of 10

ANSWER

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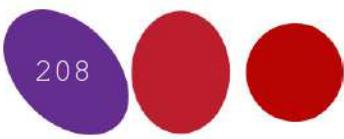
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[REDACTED]

ANSWER The answer is 1000.

[REDACTED]



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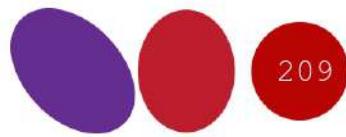
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[REDACTED]

[REDACTED]

ANSWER The answer is 1000.

ANSWER The answer is 1000. The first two digits of the number are 10, so the answer is 1000.

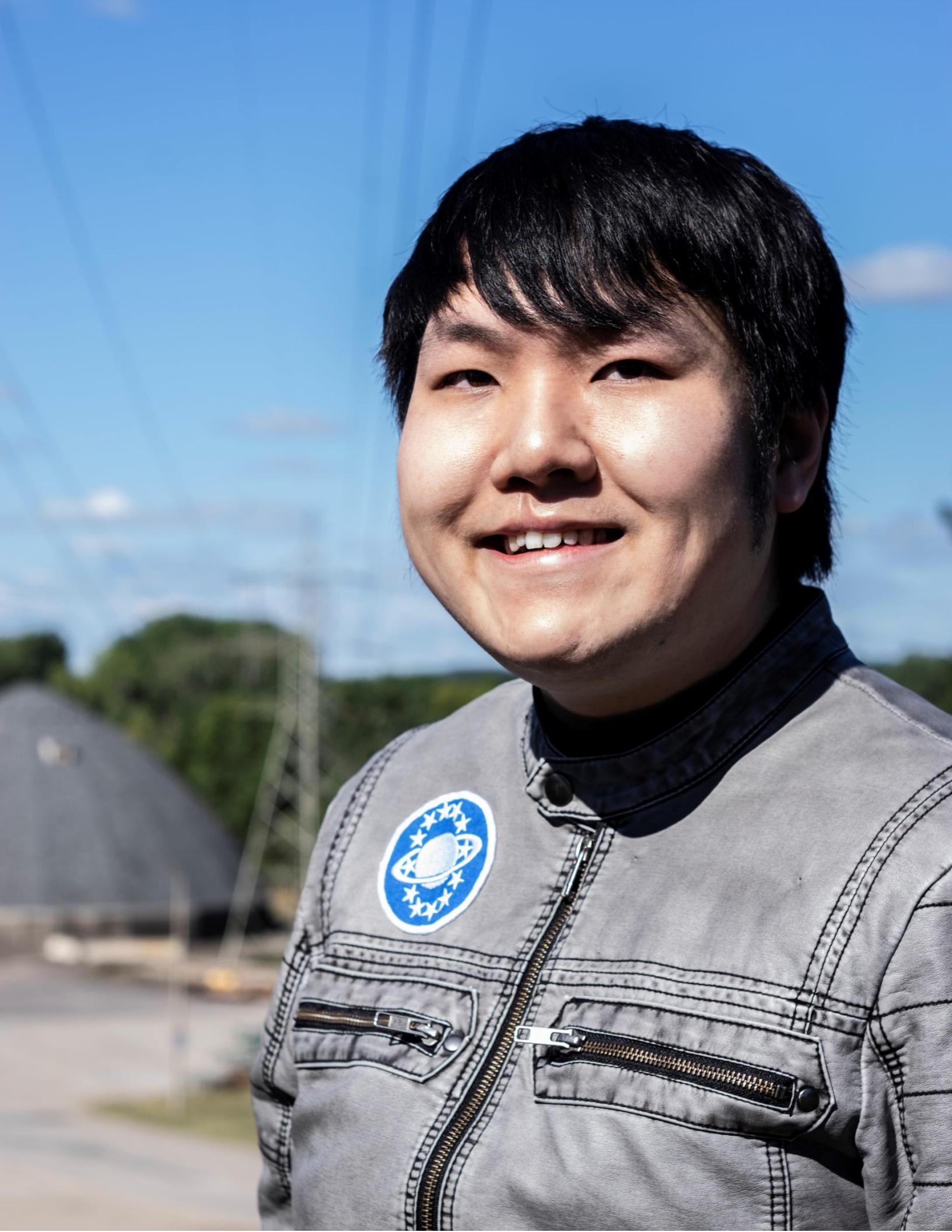
DAVID QUANG PHAM

David Quang Pham is a science dramaturg and musical writer from Wyoming, Michigan. He is the recipient of the 2020–2021 New Play Development and Dramaturgy Apprenticeship for Working Title Playwrights in Atlanta. He practices professional new development dramaturgy under their Dramaturgy Master Intensive and the International Dramaturgy Lab with fellow members of LMDA. A member of ΣΠΣ, Theater Resources Unlimited, ASCAP, and the Dramatists Guild, he attained an astrophysics degree with a minor in theatre at Michigan State University.

TOUR, the subatomic opera, is a frequent concerted feature under Musical Theatre Factory, a finalist for 2020 Downtown Urban Arts Festival, and granted several readings. This beam physics fable is about who makes you rounded: particles and educators, and revolves around their collisional journey in college in an accelerator. Under WTP's New Play Development and Dramaturgy Apprenticeship, he is developing ELLIPSES. This astrophysics epic is about who you make time for: galaxies and family, and centers on them trying to undo the Big Bang.

His theatrical and astronomical interests manifested as a child, with trips to operas and space camp. In middle and high school, he delved into music theory and played the trombone. The nerdy persona remained, and the artistic talents dwelled into his college years. As he was finishing his bachelor's thesis, his sister informed him that his high school calculus teacher had been annually sharing his musical. During his junior year of high school, he wrote MATHLAND for their winter project. He returned to musical writing on the side of thesis writing. Soon, he uncovered his niche: the world of physics being told through the human experience.

As an artistic scientist, he theorizes that science and art are not two sides of the same coin. Science and art make the coin. He spins this superposition.



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AUTHOR'S CONTACT



Book, Music, and Lyrics
DAVID QUANG PHAM

davidquangpham@outlook.com
 @WorkingTidal