

Harvard Fall Tournament XII

Edited by Raynor Kuang

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Round 10

Tossups

1. After one of these people was whipped by a sea captain, they killed and ate more than 60 crew of the *Boyd*. These people's namesake "King Movement" is meant to emulate the monarchy of European settlers, whom they call *pakeha*. Thousands of these people died in conflicts named for the imported guns that caused an inter-tribe arms race, the so-called (*) Musket Wars. These people signed over much of their sovereignty in the Treaty of Waitangi, and their modern population is concentrated on North Island around the city of Auckland. For 10 points, name this largest indigenous ethnic group of New Zealand.

ANSWER: Māori <Chu>

2. Internal energy is minimized when this quantity and entropy are both kept constant, and work done by an ideal gas in an isothermal process is proportional to the difference in the log of this state function. This quantity is "corrected" by minus a constant b times the "number of (*) moles" in the van der Waals equation. Avogadro discovered gases with an equal value of this quantity have an equal number of particles, and this quantity is proportional to temperature by Charles's Law. Boyle's law says this quantity is inversely proportional to pressure. For 10 points, name this quantity measured for example by cubic meters.

ANSWER: volume (accept molar volume until "the log of this state function"; prompt on V) <Pendyala>

3. In this author's latest play, Spike prepares Hilary for an interview at the Krohl Institute for Brain Science by asking questions on morality and consciousness. This author of *The Hard Problem* wrote a play in which Albert wears a skirt for a performance of *The Rape of the Sabine Women* given by the (*) Tragedians, who later hide "impossibly" on a ship with the title characters fleeing Denmark. This author's most famous play opens with the title characters flipping a coin heads ninety-two times in a row and centers on two minor characters from *Hamlet*. For 10 points, name this Czech-British playwright, the author of *Rosencrantz and Guildenstern are Dead*.

ANSWER: (Sir) Tom Stoppard (or Tomáš Straussler) <Cohen>

4. A funeral oration in support of this cause ends by calling its enemies "the fools, the fools, the fools!" before saying that the *opposite* situation "shall never be at peace." Thomas Henry Burke and Frederick Cavendish were murdered in Phoenix Park by advocates of this cause known as the "Invincibles." Following the failure of (*) Charles Stewart Parnell's more moderate Home Rule movement, the more radical Sinn Féin ["shin-FAYN"] group arose supporting this cause. The Easter Rising was a movement in favor of, for 10 points, what effort to create a sovereign country with a capital at Dublin?

ANSWER: Irish republicanism (or Irish nationalism; or basically any answer about making Ireland independent or free from Great Britain; do not accept or prompt on "Home Rule") <Chu>

5. 1 Thessalonians 3:12 wishes that this quality will increase for “each other and everyone else.” C. S. Lewis wrote a book about the four types of this quality, and “anyone who does not know [this quality] does not know God” according to 1 John 4. Paul compares someone without this attribute to a (*) “noisy gong” or a “clanging cymbal”, and that along with “faith” and “hope,” this attribute will remain. The most common translation of 1 Corinthians 13 states that this attribute is “patient” and is “kind,” leading to the passage’s frequent use in wedding ceremonies. For 10 points, name this “unconditional” attribute of God.

ANSWER: love (accept agape, eros, or philia; accept word forms of love) <Suh>

6. Turbidite deposits can be formed by the submarine variety of these phenomena. Sturzstorms are a type of these phenomena with relatively large horizontal distance, and one of these events in 1958 in Lituya Bay, Alaska generated a megatsunami that washed out trees higher than half a kilometer up. These events are a form of (*) mass wasting, and slope stability analysis is used to assess the probability of them happening near manmade structures. They can be classified as flows, topples, or falls. For 10 points, name this event in which a large amount of rock and sediment moves catastrophically down a slope.

ANSWER: landslide (prompt on mass wasting until read) <Pendyala>

7. GRACE and TIMI scores are used to predict an individual’s risk for this condition, and the Killip classification is applied to patients with this condition. Elevation of the ST segment distinguishes the two main forms of this condition. P2Y12 inhibitors are prescribed in response to this condition, and the presence of (*) Levine’s sign is suggestive of it. Because it’s a blood thinner, aspirin is often prescribed in response to this condition, and its symptoms include shortness of breath and chest pain. This condition can lead to cardiac arrest. For 10 points, name this often fatal condition that occurs when blood flow to the heart is blocked.

ANSWER: heart attacks (or myocardial infarction; do not accept or prompt on “cardiac arrest”) <Park>

8. In the 2006 World Cup, this man was controversially caught on camera winking during a game against England. In a game against FC Porto, he scored a goal from 40 yards out, which won him the inaugural FIFA Puskas Award, and along with Karim Benzema and Gareth Bale, he forms the (*) “BBC” attacking trio of his current club as of 2017. In 2009, this man left Manchester United for a then-world record 80 million euros to go to his current Spanish club. Often thought to be the archrival of Lionel Messi, for 10 points, name this Portuguese soccer player who plays for Real Madrid.

ANSWER: Cristiano Ronaldo dos Santos Aveiro (accept CR7; prompt on just Ronaldo; do NOT accept or prompt on Ronaldo Luís Nazário de Lima, or any answer that indicates the Brazilian Ronaldo) <Suh>

9. G. E. Moore’s naturalistic fallacy and open question argument closely resemble this thinker’s “guillotine.” This thinker distinguished between matters of fact and relations of ideas using his namesake “fork,” and he warned against deriving what (*) “ought” to be from what “is.” This thinker argued that *a posteriori* knowledge is unreliable because the laws of physics aren’t guaranteed to be constant, an analysis of the problem of induction found in *An Enquiry Concerning Human Understanding*. For 10 points, name this Scottish philosopher who studied empiricism.

ANSWER: David Hume <Jin>

10. Shostakovich’s eighth string quartet contains one of these types of works in its opening *Largo* movement, and the piccolo begins one of these at the end of a larger work including “variations and [this type of work]” based on a theme of Purcell by Benjamin Britten. This type of work is paired with preludes in (*) *The Well-Tempered Clavier*. A notably eerie piece in D minor pairs one of these works with a toccata, and was written by J.S. Bach, who also wrote a work named “*The Art of*” it. For 10 points, name this type of work that makes use of counterpoint and is often contrasted with the canon.

ANSWER: fugue <Yue>

11. A director from this country wrote the essay “A Defense and Illustration of the Classical Construction,” which argued in favor of montage. A film from this country ends on a slow zoom in and freeze frame of a boy standing on a beach, and a director from this country famously used an overabundance of jump cuts in his first film. The movies (*) *Breathless* and *The 400 Blows* were from this country. A movement from this country produced the concept of the “auteur” director and produced directors like Jean-Luc Godard and François Truffaut. For 10 points, name this country of origin of the New Wave and the site of the Cannes Film Festival.

ANSWER: France (or French Republic; or République française) <Kuang>

12. A smoothing technique described by this term is often contrasted with moving average smoothing. The interarrival times in a Poisson process are modeled by a probability distribution described by this term. During bacterial growth, a phase described by this term occurs between the (*) lag phase and stationary phase. Radioactivity is an example of a *decay* process described by this term, which also describes a function that is the inverse of the logarithmic function. For 10 points, name this adjective that describes functions of the form “ f of x equals b raised to the x power”.

ANSWER: exponential <Park>

13. In one account, this god was conceived by swallowing an emerald, and in another, a deity with 400 prior children birthed him. This son of Coatlicue [“co-AHT-lee-KWAY”] invented books and the calendar, and he travelled to the underworld and used his own blood to create the (*) fifth version of mankind. This god was the brother of Xolotl [“SHO-loht”], and his main rival was a deity represented as a “smoking mirror” and named Tezcatlipoca [“tez-CAHT-lee-POKE-uh”]. This god was associated with the “morning star” Venus, and according to legend was identified as Hernan Cortés. For 10 points, name this deity typically represented as a “feathered serpent,” the primary god in the Aztec pantheon.

ANSWER: Quetzalcoatl <Cohen>

14. This writer wrote a children’s book in which a dog steals cake from Bab and Betty’s tea party. This author of *Under the Lilacs* wrote a book featuring an unconventional school where all children have their own gardens and pets and is called Plumfield; that book by this woman was a sequel to a novel in which a character marries (*) Professor Bhaer after earlier declining a marriage proposal from her friend Laurie. In this author’s most famous book, Beth contracts scarlet fever, eventually dying under the care of her sister Jo. For 10 points, name this author of a book about the March sisters titled *Little Women*.

ANSWER: Louisa May Alcott <Cohen>

15. Some relatively unknown children by this man include his son Bernard with his mistress Ruodhaid, though his actual wife was Rotrude of Treves. This man came to power through battles against Nuestrians at Amblève and Vincy, and Edward Gibbon called this man the (*) “savior of Christendom” for a victory that came against Abd al-Rahman near Poitiers. The Carolingian dynasty descended from this man’s son Pepin the Short, and he rebuffed the Islamic advance into Europe through his victory at the Battle of Tours. For 10 points, name this Frankish leader who was nicknamed “the Hammer.”

ANSWER: Charles Martel (accept Charles the Hammer before read; prompt on just “Charles”) <Kuang>

16. This artist was depicted with an extremely long right leg being “Used as a Table” in a Salvador Dali painting. This artist painted a woman in blue holding a trumpet and a book being painted on an easel by a man with his back to the viewer. This creator of (*) *The Art of Painting* showed two women standing by the Schie river in a cityscape of his hometown, and he’s believed to have used a camera obscura to make several of his paintings. One painting by this man shows its subject wearing a blue and yellow headdress as well as the title piece of jewelry. For 10 points, name this Dutch artist of *View of Delft* and *Girl with a Pearl Earring*.

ANSWER: Johannes Vermeer (or Jan Vermeer; or Johan Vermeer) <Chu>

17. A work in this genre by William White shows a man holding a whip tipped with miniature swords and axes as he's thrown off a horse, and a sash with the Latin phrase "*Date Obolum Bellisario*" is draped over a globe next to a dismembered woman in an example of these works. In one of them, John Malcolm has a kettle shoved in his mouth for his role as an "excise-man" while a (*) crowd tars-and-feathers him. One work in this genre depicts a snake cut into eight pieces above the words "Join or Die" and was made by Benjamin Franklin. For 10 points, name these propagandistic drawings that often appeared in Revolutionary-era newspapers.

ANSWER: political cartoons (prompt on propaganda until "propagandistic"; prompt on newspapers, pamphlets, posters, and other more general types of media; prompt on drawings or engravings or lithographs) <Chu>

18. A character in this novel calls some men women because he "knows how to kill a man's spirit." A character in this book dies after running toward his father and crying, "They have killed me!", and another in it tells the story of a tortoise attending a feast of the birds. The protagonist of this novel despises his flute-playing (*) father and beats his wife during the Week of Peace. The protagonist of this book begins a seven-year exile after killing his adopted son Ikemefuna, and ultimately hangs himself after the introduction of Christianity to Umuofia. For 10 points, name this novel about Okonkwo, written by Chinua Achebe.

ANSWER: Things Fall Apart <Yue>

19. In a story from this work, a woman's lover hides in a barrel that's then sold by the woman's husband for five ducats, and in another story, Monna unknowingly eats the falcon she was sent to retrieve for her sick son. The Jew Melchizedek responds with a parable to a question by Saladin in a story from this work, and (*) Dioneo tells many of the wittiest stories from it. The "Tale of the Three Rings" and that of Patient Griselda are included in this collection. In the frame narrative, this group of one hundred stories is told by ten people seeking shelter from the Black Death. For 10 points, name this collection of stories written by Giovanni Boccaccio.

ANSWER: The Decameron <Cohen>

20. Atlas Air leased several of its Boeing 767 aircraft to this company, which received \$40 million in tax incentives to build a hub near Cincinnati. Stonecrest, Georgia offered to rename 345 acres of its territory after this company, which also received a 21-foot saguaro cactus from Tucson, Arizona. This company's CEO founded (*) Blue Origin in 2000 and bought the *Washington Post* in 2013. This company announced a \$13.7 billion acquisition of Whole Foods on July 15, 2017, and in September 2017 it announced it was looking for a city for its second headquarters. For 10 points, name this technology company based in Seattle, Washington.

ANSWER: Amazon.com, Inc. <Park>

21. In a John Greenleaf Whittier poem, this figure is "led [...] out to die" and stops to kiss a child before the speaker declares "Perish with him the folly that seeks through evil good!" Russell Banks's 1998 novel *Cloudsplitter* follows the life of this man's son Owen. Henry David Thoreau wrote an essay which he titled "A Plea for [this Captain]," calling this figure highly moral and humane, and an (*) epic poem titled for this figure's "Body" was written by Stephen Vincent Benet. For 10 points, name this radical abolitionist who perpetrated the Pottawatomie Massacre and led a raid on Harper's Ferry.

ANSWER: John Brown <Cohen>

Bonuses

1. This work opens with a thief stealing a man's car after he has walked him back to his apartment. For 10 points each:

[10] Name this Portuguese novel. It ends with the doctor's wife in her home with several new companions when the title plague lifts as mysteriously as it arrived.

ANSWER: **Blindness** (or **Ensaio sobre a cegueira**; or **Essay on Blindness**; *Ed's note: the author is Jose Saramago*)

[10] This English poet wrote the sonnet "On His Blindness" considering his failing sight. He also wrote a poem that attempts to "justify God's ways to man," and begins with the central characters organizing in the infernal city of Pandemonium.

ANSWER: John **Milton** (*Ed's note: the poem is Paradise Lost*)

[10] This woman dedicated her book *The Story of My Life* to Alexander Graham Bell. That book recounts the moment Anne Sullivan taught this deaf-blind woman the word for water.

ANSWER: Helen **Keller** <Horton>

2. Arguably the two most important holidays in Judaism are the High Holidays, also known as the Days of Awe. For ten points each:

[10] Those two holidays are Yom Kippur and this other Jewish holiday. This holiday is traditionally celebrated by dipping apples in honey and commemorates the start of a new year.

ANSWER: **Rosh Hashanah** (accept **Yom Teruah**)

[10] On Rosh Hashanah, it's also customary to use the Shofar, one of these items. The Shofar was used to signal the coming of other holidays in the Torah.

ANSWER: a ram's **horn**

[10] The High Holidays both occur during this first month of the Jewish calendar. According to some Talmudic opinions, Adam and Eve were created during this month.

ANSWER: **Tishrei** (or **Ethanim**) <Cohen>

3. Designer William Morris helped grow the initial popularity of this movement in England. For 10 points each:

[10] Name this broad artistic movement centered on decorative arts, traditional practices, and a rejection of industrialism. In America, it was sometimes known as "Mission Style."

ANSWER: **Arts and Crafts** movement (accept American **Craftsman** or **Craftsman** Style)

[10] One example of American handiwork were scrimshaw, carvings made from the remains of these animals by their hunters. The perfumist-sought material ambergris was collected from these animals.

ANSWER: **whales**

[10] These peoples are known for their furniture making prowess, as well as their famous aversion to modern technology. Their furniture had Mission and Shaker styles.

ANSWER: **Amish** (accept **Pennsylvania Dutch**) <Owen>

4. Answer some bonus questions about scientific concepts containing the term "retrograde", for 10 points each:

[10] Along with Uranus, this planet exhibits retrograde motion since it orbits the Sun in a direction opposite to the Sun's own rotation. This planet is known as Earth's "sister planet."

ANSWER: **Venus**

[10] The neuroscience technique of retrograde tracing relies on axo-plasmic transport to carry fluoro-phores from the synapse to this part of the neuron, which is home to Nissl bodies and the axon hillock.

ANSWER: **soma** (or **cell body**)

[10] In carbohydrate chemistry, the process of retrogradation involves these two components of starch. They're not cellulose or glycogen, but these two polysaccharides can be found in specialized amyloplasts.

ANSWER: **amylose** and **amylopectin** <Park>

5. This character's owner spends four days thinking of a name for him. For 10 points each:

[10] Name this subpar horse, supposedly the great-grandson of El Cid's horse, Babieca. His name is a rough pun basically conveying his elevation to heroic status.

ANSWER: **Rocinante**

[10] Rocinante is the steed to this character. He gives up acts of chivalry after losing to the Knight of the White Moon in a work of the Spanish Golden Age.

ANSWER: **Don Quixote**

[10] In *Don Quixote*, despite Sancho Panza's forewarning, Don Quixote rides into battle atop Rocinante attempting to "tilt" at these large inanimate objects, which Don Quixote mistakes for giants.

ANSWER: **windmills** <Cohen>

6. Online, the message QQ can be used to symbolize crying, which you'll surely do if you don't convert these bonus parts. For 10 points each:

[10] The quartermaster from this film franchise was known only as "Q." Ben Whishaw began playing Q in this series's film *Skyfall*, in which Daniel Craig played the central character of this franchise.

ANSWER: **James Bond**

[10] The powerful but jocular Q appears to Jean-Luc Picard in the first episode of this science-fiction series. Later, Q introduces Picard to the threat of the Borg.

ANSWER: *Star Trek: The **Next Generation*** (accept *Star Trek: **TNG***; prompt on just Star Trek and do not accept "The Original Series" or "TOS")

[10] This sports stadium is abbreviated as "The Q," and it was formerly named the Gund Arena. Some of the teams that play here include American Hockey League team the Monsters and Arena Football team the Gladiators.

ANSWER: **Quicken Loans** Arena <Kuang>

7. This figure's relationship with her servant John Brown after the death of her husband has been frequently posited as romantic. For 10 points each:

[10] Name this figure whose diary describes that husband as "MY DEAREST DEAREST DEAR" [capitals *sic*] and how "we kissed each other again & again!" This figure was at the center of the bedchamber crisis and the Hastings affair.

ANSWER: Queen **Victoria**

[10] Victoria wore black for the remainder of her life after this husband of hers died. He worked with Henry Cole to plan the very successful Great Exhibition.

ANSWER: Prince **Albert**

[10] At the Great Exhibition, some of the first public examples of these utilities were demonstrated, in which they cost a penny to use. Thomas Crapper would enter into the production of these utilities a decade later.

ANSWER: flush **toilets** (accept **WCs** or **water closets**; prompt on indoor plumbing or bathrooms; prompt on crappers in honor of Thomas, I guess) <Kuang>

8. The Riyadh Summit might have contributed to a diplomatic crisis in this country. For 10 points each:

[10] Saudi Arabia, Egypt, and the United Arab Emirates suddenly cut off diplomatic relations with what Gulf state ruled by Shiekh Tamim? This country has extensive oil and natural gas reserves, and has a capital at Doha.

ANSWER: State of **Qatar** (or Dawlat **Qatar**)

[10] The aforementioned countries demanded the shutdown of this state-funded media outlet, which has been frequently accused of bias. This network's slogan is "The Opinion and the Other Opinion".

ANSWER: **Al Jazeera**

[10] Qatar, Saudi Arabia, Bahrain, and three other Gulf states are part of this political and economic alliance. This regional intergovernmental organization created the Peninsula Shield Force and is led by the Supreme Council.

ANSWER: **Gulf Cooperation Council** (accept **GCC** or **Cooperation Council for Arab States of the Gulf**)

<Park>

9. This work begins with an F–E–F-sharp motif and makes extensive use of the tritone interval. For 10 points each:

[10] Name this landmark Edgar Varèse atonal work, the title of which refers to a physical property of the platinum instrument it was first performed on.

ANSWER: **Density 21.5**

[10] *Density 21.5* is written for this solo instrument. This instrument is often paired with the harp, and it is featured in a B minor Badinerie from Bach's *Orchestral Suite No. 2*.

ANSWER: **flute** (accept **transverse flute**)

[10] This composer of *Syrinx*, another work for solo flute, wrote a sonata for flute, viola, and harp as part of a projected six-sonata project. He used a rather chromatic flute solo to open his symphonic poem *Prelude to the Afternoon of a Faun*.

ANSWER: Claude **Debussy** <Yue>

10. This poet's first well-received collection was the book *Spring and All*. For 10 points each:

[10] Name this 20th century Puerto-Rican-American poet associated closely with Modernism. His most notable poem describes an object "glazed with rain / water," and he did double duty as a New Jersey doctor.

ANSWER: William Carlos **Williams**

[10] This is the aforementioned object that's glazed with rainwater. It's red, and presumably used to feed the nearby white chickens.

ANSWER: a **wheelbarrow** (accept "The Red **Wheelbarrow**")

[10] Williams loved to espouse this metric form he invented, in which the namesake metered element is split across multiple lines. It was linked to the forms of the triadic or stepped line.

ANSWER: **variable foot** <Cohen>

11. One film by this director includes a scene in which the camera pans to a picture of a boy soldier as Madame Lestingois is seduced by the title vagabond. For 10 points each:

[10] Name this director of *Boudu Saved from Drowning*. Hundreds of animals were most certainly harmed in a notable hunting scene from his most famous film, *The Rules of the Game*.

ANSWER: Jean **Renoir**

[10] *The Rules of the Game* includes a scene where party guests dressed as skeletons dance to a rendition of this Camille Saint-Saëns work. As in *The Carnival of the Animals*, a xylophone is used in this work to imitate rattling skeletons.

ANSWER: **Danse Macabre** (prompt on **Dance of Death** or other synonyms/translations)

[10] Jean Renoir's father Pierre painted many of his friends at one of these events "of the Boating Party." Another one of these meals involves two clothed men and a nude woman "on the Grass" in a painting by Edouard Manet.

ANSWER: **luncheon** (or **déjeuner**; accept **Luncheon of the Boating Party**; accept **Luncheon on the Grass**; accept **Le déjeuner de les canotiers**; accept **Le Déjeuner sur l'herbe**) <Chu>

12. This phase of matter still occurs in the absence of interparticle interactions and is thus termed a “statistical” phenomenon. For 10 points each:

[10] Name this ultracold phase of matter that was first physically realized by Ketterle in 1995 in a gas of sodium-23 atoms.

ANSWER: **Bose-Einstein** condensate

[10] Sodium-23 was used in part because when its nuclear and electronic spins are added they produce a number of this type. Bosons are defined by having the property that their spin is in this class of numbers, in contrast to fermions.

ANSWER: **integer** spin (accept **whole number**, **natural number**)

[10] Bose-Einstein condensation is not a spatial condensation like the gas-liquid transition, but is instead said to be a condensation in the “phase space” of this variable. In classical mechanics, this quantity for an object is equal to its mass times its velocity.

ANSWER: **momentum** (accept either linear or angular **momentum**) <Pendyala>

13. A “double” one of these events occurs in flowering plants. For 10 points each:

[10] Name this key event of sexual reproduction, in which two haploid gametes fuse to produce a diploid zygote. Depending on where this event happens, it can be described as “internal” or “external.”

ANSWER: **fertilization**

[10] During fertilization, this process is triggered when the zona pellucida surrounding the ovum binds an incoming spermatozoon. In IVF, the addition of calcium ionophores like A23187 can induce this process.

ANSWER: **acrosome** reaction

[10] In addition to providing the haploid paternal genome, sperm cells also contribute to these cylindrical organelles. These structures found in centrosomes are usually found in a “9+3” structure of microtubules.

ANSWER: **centrioles** <Park>

14. This figure’s throne is usurped from him by King Miraz. For 10 points each:

[10] Name this figure, who journeys with Eustace Scrubb and two of the Pevensie children aboard the *Dawn Treader*.

ANSWER: Prince **Caspian** (or King **Caspian** X)

[10] Prince Caspian retakes the throne with the assistance of the Pevensie children, and this figure. Centuries earlier, this figure had helped defeat a woman repeatedly feeds Edmund Pevensie turkish delights.

ANSWER: **Aslan**

[10] Aslan appeared as the heroic savior of this kingdom in *The Lion, the Witch, and the Wardrobe*, the first in the “Chronicles” written by C.S. Lewis and named for this kingdom.

ANSWER: **Narnia** <Kuang>

15. This thinker argued that a person is identical to himself if he has the same conscious experience at any given time. For 10 points each:

[10] Name this English empiricist thinker who wrote about personal identity in his *Essay on Human Understanding*. He’s better known for political works like *Two Treatises of Government*, in which he penned the phrase “life, liberty and property.”

ANSWER: John **Locke**

[10] This thought experiment on identity asks if the title vessel belonging to a Greek hero remains the same if every one of its planks is replaced. This thought experiment was introduced by Plutarch.

ANSWER: **ship of Theseus**

[10] Derek Parfit used these objects to argue for survival without identity in his *Reasons and Persons*. The paradox associated with these objects is also called the duplicates paradox.

ANSWER: **teleporters** <Jin>

16. Barton W. Mitchell is most famous for discovering these things, along with a document which prompted George McClellan to say, “if I cannot beat Bobby Lee, I will be willing to go home.” For 10 points each:

[10] Name these objects. Three of them were found wrapped in Special Order 191, which outlined essentially the entire plan for the Confederate invasion of Maryland.

ANSWER: **cigars** (do not accept or prompt on “cigarette”)

[10] The information from Special Order 191 helped McClellan at this Maryland battle, the single bloodiest day of fighting in American history.

ANSWER: Battle of **Antietam** (or the Battle of **Sharpsburg**)

[10] An especially pivotal location at Antietam was the bridge named for this Union commander of IX ^["nine"] Corps. His contribution to the world of facial hair overshadows the disastrous defeat he suffered at the Battle of the Crater.

ANSWER: Ambrose E(verett) **Burnside** <Chu>

17. The cycloalkane with this many carbon atoms features bent bonds, which are more interestingly known as banana bonds. For 10 points each:

[10] Give this number of carbon atoms in cyclopropane, the simplest cycloalkane. Cyclopropane has high ring strain because of the amount of energy need to constrain a ring out of only this many carbon atoms.

ANSWER: **three**

[10] One reason for cyclopropane’s high ring strain is the fact that all of its hydrogens are in this conformation, in contrast to the staggered conformation. The torsion angle is exactly zero in this conformation.

ANSWER: **eclipsed** conformation

[10] The Simmons-Smith cyclopropanation reaction uses a substituted methane containing two atoms of this element, whose bond with carbon is the weakest among the halogens.

ANSWER: **iodine** (prompt on I) <Park>

18. The use of the term “leucipotomy” to refer to massive hill drawings comes from one such drawing of one of these creatures in England. For 10 points each:

[10] Name these creatures. The aforementioned 360-foot long chalk figure can be found in Uffington, and may represent a precursor to the deity Epona, who was goddess and protector of these beings.

ANSWER: **horses** (accept variations like **mare**)

[10] In some accounts, this creature symbolized love, as its parents the horse and griffin were natural enemies. One of these creatures was the mount of Ruggiero in the epic *Orlando Furioso*, though a far more famous example is Buckbeak from the *Harry Potter* series.

ANSWER: **hippogriff**

[10] This Shinto god’s mount was the horse Ama no Fuchigoma. In another horse-y story involving this god, he spitefully hurled a flayed horse at his sister Amaterasu’s loom.

ANSWER: **Susano-o** no Mikoto <Owen>

19. Upon losing his patience, this man once declared “For the love of God, go!” For 10 points each:

[10] Name this man who *de facto* ruled England during the Interregnum. He led the New Model Army during the English Civil War.

ANSWER: Oliver **Cromwell**

[10] Cromwell had lost his patience due to the inaction of the “Rump” iteration of this English governing body. This body consists of the House of Lords and the House of Commons.

ANSWER: **Parliament** of the United Kingdom

[10] This name was given to supporters of the New Model Army who opposed Charles I and the cavaliers during the English Civil War. The name derived from the Puritan practice of short hair.

ANSWER: **roundheads** <Horton>

20. Animals have it rough, but some have been lucky enough to have some rich and famous benefactors. For 10 points each:

[10] The British royal family and Queen Elizabeth in particular have been noted for preferring this breed of dogs as pets, in particular the Pembroke Welsh.

ANSWER: **corgis**

[10] This Roman emperor reportedly made his horse Incitatus a consul, though it's been suggested it was more a dig at the Senate's effectiveness. Nevertheless, this emperor also did real crazy stuff like collect seashells as spoils of war.

ANSWER: **Caligula**

[10] Despite being owned by this queen, the dog Pourquoi met a suspicious end falling out of a window. This woman was beheaded so her husband could marry Jane Seymour.

ANSWER: Anne **Boleyn** <Kuang>

21. This scientist devised a method to calculate lattice energies with Fritz Haber. For 10 points each:

[10] Name this German physicist, whose contributions to quantum mechanics include matrix mechanics and an approximation he co-names with J. Robert Oppenheimer.

ANSWER: Max **Born**

[10] The Born-Oppenheimer approximation considers this quantity of the nucleus to be negligible. The Hamiltonian is the sum of potential energy and this quantity, which has rotational and translational forms.

ANSWER: **kinetic energy**

[10] Max Born also devised a coordinate chart for this manifold from the perspective of an observer rotating rapidly at relativistic speeds. This 4D spacetime is flat, and has a metric which is diagonal with one timelike and three spacelike components.

ANSWER: **Minkowski spacetime** <Park>