

Brookwood Invitational Scholars Bowl XXVI: Brought to you by the letter *J'accuse*
Round 13

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Tossups

1. On a phase portrait, the eigenvectors serve as these, and spiral points may be stable with respect to them. These act as essential discontinuities, in contrast with “removable” and “jump” discontinuities. Their slope equals plus or minus b over a for a hyperbola in standard form. The graph of the arctangent x or of a logistic curve will have two of these. “Oblique” or “slant” ones occur when the degree of the numerator of a rational function is greater than the degree of the denominator. The limit of a function as x goes to infinity or negative infinity is the “horizontal” one. For 10 points, name these imaginary lines which functions approach but do not cross.

ANSWER: asymptotes [or vertical asymptotes; or horizontal asymptotes; or slant asymptotes; or oblique asymptotes]

2. A character of this type rips off his wife’s nose after she has a knight steal his clothing in Marie de France’s lay “Bisclavret.” Sigmund and his son Sinfjotli are cursed with this punishment after trying on some magical skins in the *Volsung Saga*. Navajo “skin-walkers” are analogues to these creatures. After he served human meat to Zeus, a Greek man *not* named Tantalus was cursed with this punishment. Though not witches, these creatures were “tried” in Europe in the 1600s, after many people probably suffered porphyria. Their name derives from Lycaon in Greek myth. For 10 points, a silver bullet is the way to kill what people cursed to shapeshift during a full moon?

ANSWER: werewolves [or lycanthropes; or people who turn into wolves; or “the thing that Remus Lupin turns into”; prompt on “shapeshifters” or similar answers; do not accept “wolves”]

3. In Edward Steichen’s photograph of this man, he’s holding a chair handle which looks like a knife. This man backed off his support of Nikola Tesla’s Wardenclyffe Tower, sending Tesla into depression. This founder of the Metropolitan Club died in Rome a year after he gave up his spot on the *Titanic*. In 1920, 38 people died during bombings at his “corner”, No. 23 Wall Street. He allied with the Rothschilds during the Panic of 1893 to supply the US Treasury with gold. He arranged the merger of Edison and Thomas-Houston into GE, and bought off Andrew Carnegie to form US Steel. For 10 points, name this financier whose bank is now linked with Chase.

ANSWER: John Pierpont (JP) Morgan

4. Tony Williams played this instrument with Herbie Hancock in the V.S.O.P Quintet. One performer of this instrument can be heard laughing about a false ending on “Unsquare Dance.” One practitioner of this instrument was noted for his solos in “Sing, Sing, Sing.” Joe Morello played this instrument for the Dave Brubeck Quartet. Bandleader Gene Krupa played this instrument, as did a man who soloed two to three times during his performances of the *Channel One Suite*. That player of this instrument, Buddy Rich, often used single-stroke rolls in his solos. For 10 points, name this instrument whose players hit cymbals and tom-toms, played with brushes or sticks.

ANSWER: drums [or drum set; or drum kit]

5. A character created by this author reads a letter written to Fidel by Meggy and concludes that the dogs are carrying on an affair. A novel by this author ends mid-sentence during a Prince’s speech lambasting corruption. Major Kovalyov is outraged when the title character of one of this author’s stories becomes a State Councilor. At the end of another, the protagonist’s ghost assaults a “very important person” and steals his coat. Khlestakov pretends to be a government employee in this author’s play *The Inspector General*. Chichikov comes up with a scheme to buy the rights to serfs in a novel by this author. For 10 points, name this Russian author of “The Nose” and *Dead Souls*.

ANSWER: Nikolai Gogol

6. One type of these trees are called “Jarrahs.” A species of these trees near Koolpin Gorge is found in Kakadu National Park. These trees are blamed for the 1991 Oakland firestorm because, when on fire, they literally explode into flames; however, the heat actually nurtures new trees to grow in their place. The secretion of tiny droplets of oil by these trees led to the naming of the Blue Mountains. The “scribbly” type of this tree secretes a namesake sticky sap. The leaves of these trees provide very few nutrients, so their most notable inhabitant sleeps 20 hours a day. Didgeridoos use the wood of, for 10 points, what “gum” trees home to kookaburras and koalas in Australia?

ANSWER: eucalyptus trees [or gum trees before mention]

7. Particles named for this physicist have antisymmetric wavefunctions under exchange. A result named for him gives the probability of transitions between quantum states. Neutron stars can be modelled as his namesake type of “gas” supported by degeneracy pressure. Particles that obey the Pauli Exclusion principle follow statistics named for him and Dirac. With Leo Szilard, this man was responsible for Chicago-Pile 1, the first nuclear reactor. He gives his name to particles with half-integer spin, contrasted with bosons. For 10 points, name this Italian-born physicist who worked on the Manhattan project.

ANSWER: Enrico **Fermi**

8. In the 1800s, Henry Pinckney founded this city’s newspaper, the *Mercury*. In this city, the leading African Episcopal church was burned down after the mystic Gullah Jack was hanged here. The most famous attack on this city, which involved the *Star of the West*, was recorded by Mary Boykin Chesnut. A fort in this city was defended during the Battle of Sullivan’s Island thanks to its palmetto walls. Denmark Vesey was captured in this city. Commander Robert Anderson was forced to give up this city after a bombardment led by P.G.T. Beauregard, who watched from its harbor. For 10 points, name this South Carolina port city home to Fort Sumter.

ANSWER: **Charleston**

9. In a circular work by this artist, golden rays shine down onto six angels surrounding Mary, who cradles Christ as he holds a red fruit. This man depicted the Virgin Mary being crowned as she points to a book. Mars uses a caduceus to get rid of some clouds in another work by this artist of *The Madonna of the Pomegranate* and *The Madonna of the Magnificat*. At the left of another painting, this man portrayed three women holding hands in a dance. He painted Zephyr abducting Flora while a woman hands her pink flowered robe to a goddess standing on a seashell. For 10 points, name this Italian Renaissance painter of *La Primavera* and *The Birth of Venus*.

ANSWER: Sandro **Botticelli** [or Alessandro di Mariano di Vanni **Filipepi**]

10. A character in this work named Albert gave his wife Lil some money to buy new teeth. One section of this work considers a seaman named Phlebas. Though it’s not by Baudelaire, this poem includes a line addressed to a “hypocrite *lecteur--mon semblable--mon frere*.” Evelyn Waugh titled a novel from this poem’s quote, “I will show you fear in a handful of dust.” This poem’s line “London Bridge is falling down falling down falling down” is in its fifth section, which ends “Shantih shantih shantih.” Heavily edited by Ezra Pound, this poem begins, “April is the cruellest month.” For 10 points, name this modernist masterpiece by TS Eliot.

ANSWER: “The **Waste-Land**”

11. This non-American leader’s love of a Mexican flower led him to cultivate poinsettias across his country, which is why the poinsettia is sometimes named for him. This man gave a speech in the conservative city of Kastamonu while wearing the Panama hat. Two tenets of this leader’s “Six Arrows” were the adoption of the Latin alphabet and the metric system. This man became president after his country was granted independence by the 1923 Treaty of Lausanne. One law passed by this man prohibited civil servants from wearing the traditional fez popular in the old Ottoman Empire. For 10 points, name this founder of modern-day Turkey.

ANSWER: Mustafa Kemal **Ataturk** [prompt on “Kemal”]

12. The Celebrate Recovery program was founded in 1990 by two people with this profession. Gardner C. Taylor is referred to as the “dean” of Americans in this job, and a person with this profession was the subject of President Obama’s “A More Perfect Union” speech. One man who founded an organization in Lake Forest, California recently returned to this job after his son’s suicide. A person with this job notoriously shouted, “God damn America”, incriminating his friend Barack Obama in 2008. The leader of Saddleback, Rick Warren, is one, as was Billy Graham prior to going on television. For 10 points, name this job held by Jeremiah Wright and other church leaders.

ANSWER: **pastors** [or **ministers**; or **priests**; or **Fathers**; or **Christian leaders**; or same-knowledge equivalents, as I’m not being picky here; prompt on “televangelists”, I guess]

13. Cre-Lox recombination was developed for these organisms. Lathrop and Loeb's classic study on tumors was conducted in these organisms, which were used to identify the CFTR gene causing cystic fibrosis. Smithies and Capecchi pioneered an approach in which homologous DNA undergoes recombination in embryonic stem cells from these animals, producing chimera offspring. These are the animals most commonly subject to gene transgenesis and gene knockout. This was the first mammal to have its genome completely sequenced. For 10 points, name these common laboratory animals with name *Mus musculus*, which are smaller than rats.

ANSWER: mice [or mouse; or Mus musculus before mention; don't accept "rats"]

14. A character in this play reflects that she had two dreams: to become a nun, and to become a professional pianist. Symbols in this play include whiskey which is continually becoming more dilute, and a constantly blaring foghorn. A penny-pinching character in this play was typecast as a Shakespearean actor, so he can't find a job. The servant Cathleen and the quack Doc Hardy are minor characters in this work. Every time one character goes upstairs, she injects morphine. At this play's end, Edmund announces he has tuberculosis to his mother, Mary Tyrone. For 10 points, name this semi-autobiographical play by Eugene O'Neill.

ANSWER: Long Day's Journey Into Night

15. This thinker used the example of the Spartans and the Amazons as reasoning against the title action in one work. In another of his works, this man posited five principles for inductive reasoning, known as his namesake "methods." Though not Malthus, this man wrote a textbook called *Principles of Political Economy*, and this author of *A System of Logic* was inspired by Jeremy Bentham for another work. This author of *The Subjection of Women* described actions made by democratic leaders that greatly oppress individuals to the point of despotism as the "tyranny of the majority" in his most famous work. For 10 points, name this philosopher of *Utilitarianism* and *On Liberty*.

ANSWER: John Stuart Mill [or JS Mill; do not accept "James Mill"]

16. Jane Donoghue is a member of this group, which can act *ex aequo et bono*, ignoring the law to do what is considered "fair". The Supreme Court ruled that states are not subject to this body's actions in *Medellin v. Texas*. Article 31 of this body's statute allows *ad hoc* members to be included in "contentious" issues, which allows it to have 17 rather than 15 members. This body settled a claim to a maritime boundary disputed between Nicaragua and Honduras. This body's relationship with the Security Council was tested in the Pan Am case. For 10 points, name this international body which sits at the Hague, the judicial branch of the UN.

ANSWER: International Court of Justice [or ICJ]

17. One man with this non-religious title died from larynx cancer after only 99 days in this office during the Year of the Three of them. The final holder of this political office said, "You English are mad, mad, mad as March hares!" for an interview with the *Daily Telegraph*. One holder of this office called his cousin, Nicholas II, "Nicky" in a series of correspondences. Frederick III held this office in 1888. The first man to hold this office declared it at the Palace of Versailles in 1871 during a war fought between his country and France. All holders of this office were members of the Hohenzollern dynasty. For 10 points, give this title held by Wilhelm I and II, the emperors of Germany.

ANSWER: Kaiser [or Emperor of Germany before mention]

18. A set of piano pieces by this composer is alluded to in the title of a George Crumb work for amplified piano. This composer wrote a work with timpani glissandi in the third movement, an example of his "Night Music," and another of his works consists of 153 piano pieces which get progressively more difficult. This composer of *Music for Strings, Percussion and Celesta* and *Mikrokosmos* wrote a paradoxically-named piece with movements like "Game of Pairs." This man is best known for an opera in which Judith escapes the title place, which is protected by 7 locked doors. For 10 points, name this Hungarian composer of *Concerto for Orchestra* and *Bluebeard's Castle*.

ANSWER: Béla Bartók
[that Crumb work is *Makrokosmos*]

19. The UCM hump appears in a form of this procedure which is often followed by mass spectrometry. Acetic acid and water are at the far end of the elutropic series, which describes this technique. It often involves calculating retention times and the retardation factor. This technique is called “high-performance” when it occurs at high pressures. Silica gel is used in the “thin-layer” form of this technique. It relies on differences in polarity between solute particles, giving the mobile phase differential affinity for the stationary phase. For 10 points, name this technique which can be used to separate pigments on paper.

ANSWER: chromatography [or gas chromatography; or high performance liquid chromatography; or thin-layer chromatography; or paper chromatography]

20. Chinua Achebe’s poem “Vultures” describes a man coming home from one of these places to buy his daughter chocolate. Odilo Unverdorben worked at one of these places in *Time’s Arrow*. A character in one of these places narrates, “Never shall I forget these things, even if I am condemned to live as long as God himself. Never.”. That book ends with the narrator staring into a mirror and seeing a corpse staring back. Presumably, Dr. Dussel and Peter van Daan die at one of these locales. Moishe the Beadle warns the denizens of Sighet about these places in Elie Wiesel’s *Night*. For 10 points, name these places which caused the death of Anne Frank during the Holocaust.

ANSWER: concentration camps [or same-knowledge equivalents; accept Bergen-Belsen; accept Auschwitz]

The Round is Now Over. Continue Only if There is a Tie.

21. This city’s Christian residents were spared thanks to a Nestorian Kerait princess named Dokuz Khatun. In this city, scholars translated Greek literature to their vernacular language in a giant library made prominent by al-Ma’mun called the House of Wisdom. This capital city was established after Marwan II lost the Battle of the Zab. This city’s Golden Age, presided over by Harun-al-Rashid, came to end after the Mongol invasion in 1258. Governmental figures of this city reside in the fortified Green Zone, the former home of Saddam Hussein. For 10 points, name this capital of the Abbasid Caliphate which is also the current capital of Iraq.

ANSWER: Baghdad

Round 13 Bonuses

1. For 10 points each, name some things about Dutch art:

[10] This 20th century Dutch artist is known for his paradoxical paintings of the physically impossible, such as one of an infinitely looping staircase and another of two hand drawing each other.

ANSWER: Maurits Cornelis Escher

[10] This time when Dutch painting blossomed produced such paintings as Judith Leyster's *The Proposition* and Rembrandt's *Night Watch*.

ANSWER: Dutch Golden Age [or Tijperk Gouden]

[10] This museum in Amsterdam is home to Jan Vermeer's *The Milkmaid*. Its most popular attraction is Rembrandt's masterpiece, *The Night Watch*.

ANSWER: Rijksmuseum [or State Museum]

2. This novel opens with a story about Dick and Jane, which progressively gets more and more compact until it's unrecognizable. For 10 points each:

[10] Name this novel which ends when Claudia MacTeer, the narrator, attempts to grow marigold seeds, but they don't sprout. In this book, Pecola goes insane after she's raped by her father.

ANSWER: *The Bluest Eye*

[10] In this other novel, Paul D returns to the family of Sethe and Denver, re-awakening a ghost of the title character, who Sethe murdered on the Ohio River to prevent her from becoming a slave.

ANSWER: *Beloved*

[10] Both *The Bluest Eye* and *Beloved* were written by this contemporary author, the most recent Nobel Laureate in Literature from the US.

ANSWER: Toni Morrison

3. *Engel v. Vitale* struck down school prayer as violating this clause. For 10 points each:

[10] Name this clause of the Constitution which prohibits Congress from favoring one religion over another.

ANSWER: establishment clause

[10] The establishment clause and the free exercise clause are found in this amendment to the Constitution which outlines freedoms of speech, religion, press, and assembly.

ANSWER: First Amendment

[10] This 1971 Supreme Court case outlined a three-pronged test in which government spending can be used for parochial schools.

ANSWER: Lemon v. Kurtzman

4. This compound binds to protein kinase A, activating it for phosphorylation, and it is produced in response to activation of the G-sub-s protein. For 10 points each:

[10] Name this secondary messenger which is produced from ATP by adenylyl cyclase.

ANSWER: cAMP [or cyclic AMP; or cyclic adenosine monophosphate]

[10] This other ion is used as a secondary messenger. It is stored in the sarcoplasmic reticulum, and it's found in the human skeleton as well as in milk.

ANSWER: calcium [or Ca²⁺]

[10] In the human body, these cells are activated by an influx of calcium ions. According to the sliding filament model, calcium binds to troponin in these cells, exposing new sites for myosin and actin.

ANSWER: skeletal muscle cells

5. For 10 points each, answer these questions about the history of wildlife conservation:

[10] Measures to combat this illegal hunting and capturing of wildlife include the CITES treaty, which limits cross-border trade of wildlife. This crime is often done for the ivory of elephants and rhinos.

ANSWER: **poaching**

[10] This non-governmental organization founded in 1961 focuses on reducing the ecological footprints left by carbon emissions that specifically harm 36 species. Its symbol is a Giant Panda named Chi-Chi.

ANSWER: **WWF** [or **World Wide Fund** for Nature; or **World Wildlife Fund**]

[10] This database maintained by the IUCN tracks the conservation status of thousands of species. The nine categories which species are designated to in this database range from “Extinct” to “Least Concern.”

ANSWER: IUCN **Red List** of Threatened Species [or **Red Data List**]

6. Answer the following about modern Sino-American relationships, for 10 points each:

[10] Mitt Romney vowed to label China a currency manipulator his first day in office, referencing the Chinese government pegging this currency to the dollar, undervaluing it.

ANSWER: the **yuan** [or **renminbi**]

[10] A meeting between President Obama and Xi Jinping in June 2013 focused on this type of crime. In the US, SOPA and PIPA were introduced in Congress as a means of preventing this type of crime.

ANSWER: **cybercrime** [or **cyberterrorism**; or **hacking**; or online **piracy** or same-knowledge equivalents involving the Internet]

[10] China has responded aggressively in territorial disputes in the South China Sea since President Obama announced this policy for East Asia. The policy is often described using this verb.

ANSWER: **pivot** [or word forms]

7. This man killed his father-in-law Deioneus after refusing to pay a dowry, but after committing the first parricide in Greek myth, he was rewarded with a feast at Olympus. For 10 points each:

[10] Name this man who was punished when he lusted after Hera at the feast. He was strapped to a fiery wheel in Hades.

ANSWER: **Ixion**

[10] Ixion actually was only lusting after a cloud named Nephele, though, and their relationship ended up spawning this race. This race of hybrid creatures fought the Lapiths at Pirithous’ wedding, as depicted at the Parthenon.

ANSWER: **centaurs**

[10] Nephele is also known for being the mother of Phrixus and Helle, and sent them this object to take them to Colchis. Jason and the Argonauts quested after this object.

ANSWER: **Golden Fleece** [or the **Golden Ram**]

8. This location was the home of the “Playboy riots” after the staging of John Millington Synge’s play *The Playboy of the Western World*. For 10 points each:

[10] Name this theater in Dublin co-founded by Lady Gregory.

ANSWER: **Abbey** Theater

[10] The other co-founder of the Abbey Theater was this Irish poet of “Sailing to Byzantium” and “The Second Coming.”

ANSWER: William Butler **Yeats**

[10] Yeats’ important prose work includes the preface to this poetry collection written by Rabindranath Tagore.

ANSWER: **Gitanjali**

9. At room temperature, it sublimates into a purple vapor. For 10 points each:

[10] Name this diatomic gaseous element, a halogen which is often added to salt to prevent goiters.

ANSWER: **iodine** [or **I**]

[10] Iodine has a higher boiling point than the other halogens because these intermolecular forces are stronger for it. These forces are caused by induced dipoles and are generally stronger for large molecules.

ANSWER: **London** dispersion forces [or London **dispersion** forces; prompt on “**van der Waals** forces”]

[10] The strength of dispersion forces increases with molecular surface area because this quantity increases for the electron cloud. It is the ratio of how strong an induced dipole is to the exterior electric field strength.

ANSWER: **polarizability** [or word forms]

10. Before one battle, this leader proclaimed “See God not as an autocratic despot, but as the common father of all.”
For 10 points each:

[10] Name this leader who urged his mutinous soldiers to take his 324 BCE speech at Opis as a “symbol of love” during his namesake oath. This man defeated Darius the Great at the Battle of Issus.

ANSWER: **Alexander the Great** [or **Alexander III** of Macedon; prompt on “Alexander”]

[10] Alexander the Great was a king of this empire, which he expanded to massive proportions after his military campaigns in Persia and India.

ANSWER: **Macedonian** Empire

[10] By some accounts, Alexander is implicated in this 336 BCE event, which victimized the creator of the *sarissa* spear. This event, which occurred at Cleopatra’s wedding, was perpetrated by the victim’s lover, Pausanias.

ANSWER: **assassination of Phillip II** of Macedon [or **assassination of Alexander’s father**; accept equivalents]

11. Answer the following about the border between Texas and Oklahoma, for 10 points each:

[10] To the west, a single line of latitude separates the two states in this region of Oklahoma. These long, narrow regions of states are also found in northern Florida and Idaho.

ANSWER: **panhandles**

[10] Further east, the boundary between them is marked off by this river, a tributary of the Mississippi and Atchafalaya which has a mouth in Louisiana.

ANSWER: **Red** River of the South

[10] This large Texas city is located fairly close to the Oklahoma border. This city is sometimes called the “Metroplex” because of its close association with Fort Worth.

ANSWER: **Dallas**, Texas

12. In a short story by this author, a magical wish-granting “Bottle Imp” must be sold at constantly lower prices, until the last person left with the imp gets damned to Hell. For 10 points each:

[10] Name this author of the poetry collection *A Child’s Garden of Verses*, as well as a novella narrated by Mr. Utterson.

ANSWER: Robert Louis **Stevenson**

[10] In this adventure novel by Robert Louis Stevenson, Jim Hawkins goes on the *Hispaniola* and has trouble figuring out if Long John Silver is a good guy or a bad guy.

ANSWER: **Treasure Island**

[10] This character was left on Treasure Island by an earlier mutiny against Captain Flint. He has a obsessive fondness for cheese and hides the treasure in his cave.

ANSWER: **Benjamin** Gunn [or Ben **Gunn**]

13. This composer coined the name for, and was the biggest innovator of, the prepared piano. For 10 points each:

[10] Name this avant-garde composer of some *Imaginary Landscapes*, the fourth of which is performed with radios.

ANSWER: John **Cage**

[10] This Cage work is his most-famous, scored for three movements, in which the performer does not play a note during the title duration.

ANSWER: **4’33”** [accept “**four minutes thirty-three seconds**” or “**four minutes and thirty-three seconds**” or “**four thirty-three**”]

[10] Cage’s music served as a precursor to Minimalism, a movement which included this composer of *Piano Phase* and *Different Trains*.

ANSWER: Steve **Reich**

14. Answer the following about the holy books of Baha'i. ! For 10 points each:

[10] There are actually lots of holy scriptures in Baha'i, but possibly the most important work of Baha'i doctrine is this book often called the "Iqan", written by Baha'u'llah.

ANSWER: Kitab-i-Iqan [or the Book of Certitude]

[10] The Baha'i canon also includes two works titled for "two" and "four" of these landforms. The speaker of Psalm 23 describes one of these "of the shadow of death."

ANSWER: valleys

[10] Texts authored by the Universal House of Justice are also considered sacrosanct to Baha'i. That building is located in Haifa, in this country, where you'd also find the Dome of the Rock and the Church of the Holy Sepulchre.

ANSWER: State of Israel

15. For 10 points each, name these troubles faced by China, the "old, crazy first-rate man of war":

[10] In one political cartoon, an old man personifying China flails his arms in despair as Germany cuts the "China pie" while staring at this English queen. She was the longest-reigning queen in English history.

ANSWER: Queen Victoria

[10] China was again plagued by British power during these two mid 19th century conflicts caused by confiscations of an important commodity. Britain's supreme navy at Ningbo led to a quick defeat during the first of them.

ANSWER: Opium Wars

[10] With Michael Seymour and Marshall Gros, this Scottish general seized the Chinese city of Canton during the Second Opium War. He is more famous for ordering the removal of valuable friezes from the Parthenon in 1801.

ANSWER: Thomas Bruce, 7th Earl of Elgin [accept either]

16. These objects can be "radio-loud" or "radio-quiet" depending on the strength of the jet emissions. For 10 points each:

[10] Name these dense regions with an extraordinarily high luminosity, located at the center of galaxies. Examples include Seyfert galaxies.

ANSWER: active galactic nuclei [or AGNs; or "nucleus" in place of nuclei]

[10] These extremely bright AGNs surround supermassive black holes. The Einstein Cross is one of these objects undergoing gravitational lensing. They are powered by accretion disks.

ANSWER: quasars [or quasi-stellar radio sources]

[10] The distance and recessional velocity of quasars can be determined by examining the redshift in their emission spectra using this man's namesake law. This astronomer got a space telescope named in his honor.

ANSWER: Edwin Hubble

17. At the conclusion of this work, Thierry defeats Pinabel, and Ganelon is quartered. For 10 points each:

[10] Name this early French poem about a warrior in Charlemagne's army.

ANSWER: *The Song of Roland* [or *La Chanson de Roland*]

[10] Another anonymous "song" from medieval European literature is about this Castilian Spanish hero who defeats the Moors during the Reconquista.

ANSWER: El Cid [or The Cid; or Le Cid; or El Cantar de Mio Cid]

[10] This French playwright of the seventeenth century drew on the *Song of My Cid* for his 1637 tragedy *Le Cid*.

ANSWER: Pierre Corneille

18. Before being put to death in Salt Lake City, songwriter Joe Hill's last words to this organization were "Don't mourn, organize!" For 10 points each:

[10] Name this radical socialist labor union founded in 1905 with the slogan "An injury to one is an injury to all." Led by "Big Bill" Haywood, its goal was to create one big union after regarding the AFL as a failure.

ANSWER: IWW [or International Workers of the World or Wobblies]

[10] The IWW's operations were significantly slowed down during the first of these colorful time of anti-communist hysteria. During the second one, Joseph McCarthy went on his communist witch-hunt in Hollywood.

ANSWER: "Red Scare"

[10] Mary "Mother" Jones, a cofounder of the IWW, was known as the "angel" of these workers. Teddy Roosevelt used unprecedented peaceful negotiations to end a 1902 Pennsylvania strike of these workers.

ANSWER: (coal) miners

19. In the film *Notorious*, the director worked around this law's provision on excessive kissing by having the couple break the kiss every three seconds. For 10 points each:

[10] Name this code that governed American film from 1930 to 1968 which also barred movies from allowing profanity and nudity, named for a MPAA head whose main focus in film was censorship.

ANSWER: **Hays** Code [or the **Motion Picture Production** Code]

[10] This is the aforementioned director of *Notorious*, who constantly found workarounds to the rules of the Hays Code. He also directed suspenseful films like *Psycho* and *Rear Window*.

ANSWER: Alfred **Hitchcock**

[10] This Billy Wilder film was released without a "certificate of approval" in 1959, weakening the Hays Code. In this film, Jack Lemmon and Tony Curtis are forced to crossdress and team up with a Marilyn Monroe-played singer.

ANSWER: ***Some Like It Hot***

Note to moderator: Read the second part of this bonus slowly.

20. Answer the following about the Poynting vector, for 10 points each:

[10] The Poynting vector measures this quantity per unit area. It equals energy transfer over time and is measured in watts.

ANSWER: **power**

[10] If the electric field is pointing forward and the magnetic field is pointing downward, then the direction of the Poynting vector can be obtained by taking the cross product of the two fields, resulting in this direction.

ANSWER: to the **left** [or equivalents]

[10] The magnitude of this phenomenon equals the average of the Poynting vector over the speed of light. This phenomenon allows solar sails to work, because light has momentum and therefore exerts a force.

ANSWER: radiation **pressure**

The Round is Now Over.

21. Firing squads often appear in famous works of literature. For 10 points each:

[10] Colonel Aureliano Buendia faces a firing squad before having a flashback in this Colombian author's novel *One Hundred Years of Solitude*.

ANSWER: Gabriel **Garcia Marquez** [prompt on "Marquez"]

[10] While at the beauty salon, this character tells his wife, "To hell with the handkerchief," before imagining himself in front of a firing squad "erect and motionless, proud and disdainful...inscrutable to the last."

ANSWER: **Walter Mitty** [accept either; also accept "The **Secret Life of Walter Mitty**"]

[10] This Spanish author was assassinated by one of Franco's firing squads during the Spanish Civil War. A bloodthirsty moon wants to kill Leonardo, who is killed by the Bride, in this man's *Blood Wedding*.

ANSWER: Federico Garcia **Lorca**