Tournament 16
Round 9

1. In this novel, the protagonist is sent to consult with the psychiatrist Sanderson after sexually assaulting Nurse Duckett. Another character in this novel is promoted by an IBM machine with a sense of humor such that his rank is the same as his name. The title of this novel, set on the island of Pianosa, refers to the fact that anyone seeking to get out of a (*) mission must be sane, and thus fit to go out on another mission. For 10 points, Yossarian is the protagonist of what novel about a World War Two bombing squadron written by Joseph Heller?
ANSWER: Catch-22
2. This man wrote that he did not think it possible to "consolidate a great republic" in the lands where he was fighting in his 'Jamaica Letter." As a general, this man achieved victories in the Battles of Boyacá and Carabobo. This leader was assisted by the officer Antonio (*) José de Sucre and attended the Guayaquil Conference to meet with José de San Martin. This man was the first president of Gran Colombia. For 10 points, name this revolutionary who became known as El Libertador for freeing Ecuador, Colombia, and Venezuela from Spanish rule.
ANSWER: Simón Bolívar
023-10-23-09103
3. One of these can be issued by the Supreme Court to obtain immediate review of exceptional cases and requires agreement from four of the justices. Another of these orders commands an official to perform a specific act required of his office. In addition to (*) certiorari and mandamus, another of these can be issued to direct one who holds another in custody to produce that person before the court. For 10 points, name these common law orders requiring the performance of a specific act, an example of which is habeas corpus.
ANSWER: writs
030-10-23-09104
4. In one of this man's operettas, the Viceroy Enrico Medigua disguises himself as the title Peruvian rebel. This composer of El Capitan wrote one piece for the awards ceremony of an essay contest. This composer of "The Washington Post" wrote another piece often accompanied by the lyrics, "Be kind to your web-footed friends." Another of his compositions is the official (*) march of the Marine Corps. For 10 points, name this composer of "Semper Fidelis" and "Stars and Stripes Forever," known as the "March King."
ANSWER: John Philip Sousa
5. One part of this song takes place on a train in a station with "plasticine porters with looking glass ties". This song was at one point banned by the BBC for the belief that the first letters of the main words in its title intentionally spelled out a certain drug. The daughter of the protagonist in I am Sam takes her name from this song, which opens by telling the listener to $\left.{ }^{( }\right)$picture themselves on a boat in a river being called to a by a "girl with kaleidoscope eyes." For 10 points, name this song released on Sgt. Pepper's Lonely Hearts Club Band which provided the name for a well known human fossil. ANSWER: "Lucy in the Sky with Diamonds"
6. This theory describes how liquid oxygen has both a double bond and is paramagnetic. It can be used to explain why dihelium (dye-'HELIUM') does not exist but the dihelium plus one ion can theoretically exist. It uses an approximation called LCAO, and when applied to a heteronuclear molecule, places the more electronegative atom at a lower (*) energy level. When applied to dioxygen, it contains energy levels denoted sigma and pi, and sigma star and pi star. For 10 points, name this theory which places electrons into bonding and anti-bonding energy levels.
ANSWER: molecular orbital theory [or MO theory]
7. When this man stopped at a well at Midian, he so impressed Hobab by his defense of a group of seven shepherdesses that he received Hobab's daughter Zipporah in marriage. This man's grandfather was Levi, and his parents were Amram and Jochebed. As a baby, he was placed in a basket of reeds and sent to the care of an (*) Egyptian woman because it had been decreed that all Hebrew male children were to be drowned in the Nile River, as related in the book of exodus. For 10 points, name this Biblical figure who parted the Red Sea.
ANSWER: Moses
8. One company that attempted to create this structure was led by Philip Schuyler and named for the Western Inland. The chief engineer of this structure worked with a group of self-taught workers. That chief engineer of this structure built off of the Mohawk River was Benjamin Wright. This structure was nicknamed (*) "Clinton's Big Ditch" after the man who promoted its construction, New York Governor DeWitt Clinton. For 10 points, name this canal completed in 1825 that connects the Hudson River to a namesake Great Lake.
ANSWER: Erie Canal
023-10-23-09109
9. Stratonovich introduced a version of this operation for stochastic processes. Another type of this operation is named after Lebesgue (le bay). Fubini's theorem specifies the conditions under which the iterated type of this operation can be performed in a different order. Doing this (*) "by parts" is useful for certain products of functions. Another type of this operation is named after Riemann, and it can be approximated using the rectangle method. For 10 points, name this operation which is connected to differentiation by the fundamental theorem of calculus.
ANSWER: integration [accept word forms]
10. In one story by this author, the artist Johnsy survives an attack of pneumonia by staring at an object painted on a brick wall. This author of "The Caballero's Way" set many of his stories in New York City, which he affectionately called "Baghdad-on-the-Subway." He also wrote a story in which James Dillingham Young sells his prized watch to buy expensive combs for his wife Della for (*) Christmas, only to learn that she cut off her long hair to buy a fob for his watch. For 10 points, name this author of short stories such as "The Ransom of Red Chief" and "The Gift of the Magi."
ANSWER: O. Henry [or William Sydney Porter]
11. One postulated type of this entity is known as the 'self-interacting" type. The galaxy rotation problem is indirect evidence for its existence. It is grouped into the categories of hot, warm, and cold, based on the speed at which it travels. Proposed forms of it include massive astronomical compact halo objects and $\left(^{*}\right)$ weakly interacting massive particles, or MACHOs and WIMPs. For 10 points, name this hypothesized type of matter which accounts for $80 \%$ of the matter in the universe.
ANSWER: dark matter [prompt on dark energy until "matter"]
024-10-23-09112
12. This empire captured Fort St. Elmo but failed to capture Fort St. Angelo despite a four-to-one numerical advantage during its invasion of Malta. This empire signed the Peace of Karlowitz after losing the Battle of Zenta to Eugene of Savoy. Ali Pasha's loss at the Battle of Lepanto stymied this empire's attempts to keep moving westward. This empire was officially dissolved by the Treaty of Lausanne, signed after it came out on the $\left(^{*}\right)$ losing side of World War I. For 10 points, name this "Sick Man of Europe" that was centered in what is now Turkey.
ANSWER: Ottoman Empire
003-10-23-09113
13. A recurring 40-bar theme in this piece was taken from the composer's earlier cantata Herminie. That theme is paired with the Dies irae in the final movement, and is known as the "idee fixe". This work's third movement was titled 'Scene in the Countryside", and its last two movements depict an opium-induced dream of $\mathbf{a}\left({ }^{(*)}\right.$ March to the Scaffold and a witches' sabbath. This symphony was inspired by its composer's obsession with the actress Harriet Smithson. For 10 points, name this symphony by Hector Berlioz.
ANSWER: Symphonie Fantastique: Épisode de la vie d'un Artiste...en cinq parties [or Fantastic Symphony: An Episode in the Life of an Artist, in Five Parts]

083-10-23-09114
14. During one of these conflicts, Manius Manilius was relieved by another general after his unsuccessful attempt at a siege. The Fabian strategy was developed in response to one side's losses at Trebia and Lake Trasimene in one of these conflicts. In the second of these conflicts, one side was defeated at (*) Zama by Scipio Africanus. That side in that part of these conflicts was led by Hannibal, who crossed the Alps on elephants. For 10 points, name these three wars fought between Rome and Carthage.
ANSWER: Punic Wars
024-10-23-09115
15. This author wrote a novel in which the trader Stein sets up the main character in a settlement where Gentleman Brown kills Dain Waris. In that work by this writer, the title character loses his honor when he abandons the Patna. In another story by this man, the narrator visits one character's "intended" and tells her a lie about a man who wrote in a manuscript 'exterminate all the brutes" and who died saying "The (*) horror! The horror!" For 10 points, name this Polish-born creator of Marlow, the narrator of Lord Jim and Heart of Darkness.
ANSWER: Joseph Conrad [or Józef Teodor Konrad Korzeniowski]
16. This city was the founding place of the Jewish youth association Aleph Zadik Aleph. It is home to both the history Old Market district and the world-famous Henry Doorly Zoo. This city is known as the "Gateway to the West" because it is the starting point of the Union Pacific Railroad, which was supposed to begin in the nearby Iowa city of Council Bluffs. Its Johnny Rosenblatt Stadium is the annual home of the College (*) World Series. This is the largest city in a state with capital Lincoln. For 10 points, name this largest city of Nebraska.
ANSWER: Omaha
17. These deteriorate in Wallerian Degeneration. These cellular structures are guided by netrins and they grow by growth cones. One notable MAP located here is the tau protein. These are connected to their namesake hillock. These contain microtubules and motor proteins allowing anterograde transport of materials to their termini to take place. They are covered a (*) myelin sheath. For 10 points, name these long projections of neurons that transmit electrical and chemical signals at synapses to dendrites.

ANSWER: axon [prompt on neuron before mentioned]
001-10-23-09118
18. In one novel by this man, the soldier Georges Duroy becomes a leading journalist and political figure with the help of Madeleine Forestier. In a story by this author, a man is accused of stealing a wallet after bending down to pick up the title piece of string. This author of Bel Ami set many of his stories during the (*) Franco-Prussian War. He wrote a story about the devastating realization that the title item is a fake after Madame Loisel loses it at a party. For 10 points, name this French short story writer who authored "The Necklace."

ANSWER: Guy de Maupassant
19. A stained-glass window by one of this artist's colleagues inspired him to use the diamond-shaped "lozenge" in his works. This painter refused to use the color green, and a notable work of his was inspired by the Manhattan street grid. The term Neo-Plasticism is usually associated with an art movement this artist belonged to along with (*) Theo van Doesburg, De Stijl ("STEEL"). For 10 points, name this Dutch abstract painter of Broadway Boogie Woogie known for geometric works which feature black lines and primary colors on a white surface.
ANSWER: Piet Mondrian
082-10-23-09120
20. This group set up communities at Niskeyuna and New Lebanon, the latter of which came to prominence under the leadership of Joseph Meacham and Lucy Wright. Those leaders promoted the idea of separate living quarters for men and women, increasing this group's focus on celibacy. Following the teachings of (*) "Mother" Ann Lee, this group currently consists of only a few living members living at Sabbath Day Lake, Maine. For 10 points, name this Protestant denomination, an offshoot of the Quakers whose members often actively move during prayer.
ANSWER: Shakers [or The United Society of Believers in Christ's Second Appearing]
21. This man issued a pledge under a tree to confirm the loyalty of his subjects in the face of a possible deception following the Treaty of Hudabiyyah. He conquered an oasis at the Battle of Khaybar, while earlier he had attempted to foil his opponent's superior numbers and cavalry by digging the namesake structure at the Battle of the Trench. He had earlier emerged victorious at the battles of Uhud and Badr, which he won for the forces of the city of $\left(^{*}\right)$ Medina; he had journeyed to Medina from Mecca in the Hijra. For 10 points, name this man, a prophet and general who founded Islam. ANSWER: Muhammad ibn Abdullah
22. Introducing a flat space approximation for their outer regions into their metric yields Rindler geometry. One proposed solutions to their information loss problem is the holographic principle. One theorem states that these objects are describable by just three parameters. One type is named for Kerr and their size can be thought of as the (*) Schwarzschild radius. Surrounded by an event horizon, they contain a singularity. They can be formed by the collapse of massive stars. For 10 points, name this objects from which light cannot escape.
ANSWER: black holes [or event horizon before "three parameters"]
23. A series of cables attached to a reinforced concrete arch supports the roof to this architect's Ingalls Ice Arena at Yale University. Earlier in his career he often collaborated with his father Eliel, and this designer of the Kresge Auditorium at MIT employed a curved concrete roof for his design of the Dulles International Airport. Hannskarl Bandel aided this man in the design of his best known work, a 630-foot tall inversed $\left(^{*}\right.$ ) catenary located in St. Louis, Missouri. For 10 points, name this Finnish-American architect who designed the Gateway Arch.
ANSWER: Eero Saarinen

Tournament 16
Round 9

1. Rivers on this peninsula include the Tagus, the Guadalquivir, and the Ebro. For 10 points each: [10] Name this peninsula separated from the mainland by the Pyrenees Mountains.
ANSWER: Iberian Peninsula
[10] This metropolis on the Guadalquivir River is the capital of the region of Andalusia. A chain could once be dragged across the river at the Torre de Oro to prevent boating traffic during medieval times. ANSWER: Seville
[10] The Guadalquivir drains into this gulf, named for a city on its eastern shore, that also receives the Guadiana River.
ANSWER: Gulf of Cadiz
040-10-23-09201
2. Maurice Ravel made a notable orchestration of this piece. For 10 points each:
[10] Name this piece inspired by the works of Viktor Hartmann. A "Promenade" theme serves as a transition between movements such as "The Old Castle" and "The Great Gate of Kiev."
ANSWER: Pictures at an Exhibition
[10] Pictures at an Exhibition is the most notable work by this Russian composer. He also composed the opera, Boris Godunov.
ANSWER: Modest Mussorgsky
[10] This orchestral work by Mussorgsky depicts a Witches' Sabbath at the title location. It was based on an excerpt from his opera, Sorochintsy Fair.
ANSWER: St. John's $\underline{\text { Night on the Bare Mountain [or Night on Bald Mountain] }}$
080-10-23-09202
3. A split between the ANC and PAC occurred prior to this event. For 10 points each:
[10] Name this 1960 massacre in South Africa.
ANSWER: Sharpeville Massacre
[10] The Sharpeville Massacre was among the events during this period of enforced racial segregation in South Africa.
ANSWER: apartheid
[10] This man was the last apartheid era president of South Africa, and he won the Nobel Peace Prize along with Nelson Mandela in 1993.
ANSWER: Frederik Willem de Klerk
064-10-23-09203
4. Answer these questions about President Obama's education policies, for 10 points each.
[10] As part of the stimulus program, Obama created this initiative which gave states educational grants based on how well their schools performed.
ANSWER: Race to the Top
[10] Obama's Education Secretary is this man, the former superintendent of Chicago's public schools. ANSWER: Arne Duncan
[10] Among the states which one the highest award of 700 million dollars was this state where Marco Rubio recently defeated Charlie Crist for a Senate seat.
ANSWER: Florida
5. Uncle Pio and the Marquesa de Montemayor are some of the victims of the title structure's collapse. For 10 points each:
[10] Name this 1927 Thornton Wilder novel, in which Brother Juniper is burned at the stake for writing that the lives lost on the namesake object were part of God's plan.
ANSWER: The Bridge of San Luis Rey [do not accept "The Bridge over San Luis Rey"]
[10] Though he wrote many novels, Thornton Wilder is likely best known for this play, in which the Stage Manager presents the story of George Gibbs's marriage to Emily Webb in Grover's Corners.
ANSWER: Our Town
[10] Wilder also wrote this surreal play, in which the seemingly immortal Antrobus family of Excelsior, New Jersey survives the sudden onset of a new ice age.
ANSWER: The Skin of Our Teeth
019-10-23-09205
6. This word can be used to describe the pairs of related acids and bases in the Bronsted-Lowry definition.

For 10 points each:
[10] Give the word to describe a base created from an acid losing a proton or an acid created from a base gaining a proton.
ANSWER: conjugate
[10] This type of solution makes use of a weak acid or base and its conjugate to keep the pH from changing a large amount.
ANSWER: buffer solutions
[10] This equation often used with buffer solutions sets the pH equal to the pKa plus the $\log$ of the concentrations of the conjugate acid and base.
ANSWER: Henderson-Hasselbalch equation
7. This man purchased many religious items from Emperor Baldwin II, including a fragment of the True Cross and the Holy Crown. For 10 points each:
[10] Name this only canonized King of France.
ANSWER: Louis IX of France [or Saint Louis; prompt on Louis]
[10] Louis IX died during the eighth one of these conflicts whose goal was to gain control of the Holy Land. The first one was initiated by Pope Urban II in 1095.
ANSWER: Crusades
[10] Louis IX's father, Louis VIII, died during this crusade, which aimed to expel the Cathari out of southern France. It was initiated by Innocent III in 1209.
ANSWER: Albigensian Crusade
8. Answer some questions about an Eastern religion, for 10 points each.
[10] Born Siddhartha Gautama, this figure went on to reach enlightenment under a Boddhi tree and founded a religion to compete with Hinduism.
ANSWER: Buddha
[10] This branch of Buddhism, dubbed the "Greater Vehicle," states that even laypeople can reach enlightenment.
ANSWER: Mahayana Buddhism
[10] The first of the Four Noble Truths states that life always brings with it this concept, which means "suffering."
ANSWER: dukkha
9. This architect developed a series of plans for the renewal of Oklahoma City through the sixties and seventies. For 10 points each:
[10] Name this architect of the JFK Library and the Bank of China Tower.
ANSWER: Ieoh Ming Pei
[10] I.M. Pei also designed a controversial glass pyramid for the renovated entrance to this Paris art museum.
ANSWER: the Louvre
[10] Pei used a similar glass pyramid design for this Cleveland building, which opened in 1995 on the shores of Lake Erie.
ANSWER: Rock and Roll Hall of Fame
10. This work opens with a ghost called Machiavel. For 10 points each:
[10] Name this play which sees the Turkish fleet rob Barabas of his wealth.
ANSWER: The Jew of Malta
[10] The Jew of Malta was a work by this contemporary of Shakespeare who also wrote Doctor Faustus and Tamburlaine.
ANSWER: Christopher Marlowe
[10] Roger Mortimer is executed at the end of this Marlowe play which opens with the return of Piers Gaveston, a favorite of the title English king.
ANSWER: Edward II
11. A double one of these objects can be used to show chaotic motion. For 10 points each:
[10] Name this object that can be made up of a bob on a string and that swings from a fixed point.
ANSWER: pendulums
[10] This property for a simple pendulum is equal to the square root of the length of the string over the acceleration due to gravity all multiplied by two pi.
ANSWER: period
[10] This property of a pendulum is the angle of its displacement from the vertical, and, when it is large, causes calculations of the pendulum's period to become more complex.
ANSWER: amplitude
12. Ereshkigal forced this deity to ditch one article of clothing at each of the seven gates of hell following the death of her consort. For 10 points each:
[10] Name this Babylonian goddess, a counterpart of Inanna associated with love and sex, among other things.
ANSWER: Ishtar
[10] This man was the consort of Ishtar, and of Inanna.
ANSWER: Tammuz
[10] One common symbol of Ishtar was a star with this many points. A group of this many immortals is present in Chinese mythology.
ANSWER: eight
13. This biological material comes in brown and white forms, while the trans forms have negative health consequences. For 10 points each:
[10] Name this insulating, energy storing material found in adipose tissue.
ANSWER: fats
[10] Fats are made up of molecules where three fatty acids are esterified to this compound.
ANSWER: glycerol
[10] If the fatty acids in a triglyceride contain no double bonds, the fat is said to be this.
ANSWER: saturated
001-10-23-09213
14. This man oversaw the outlawing of the Social Democratic Party, and he doctored the Ems Dispatch to provoke war with France. For 10 points each:
[10] Name this Iron Chancellor who oversaw the unification of Germany.
ANSWER: Otto Eduard Leopold von Bismarck
[10] Bismarck supported this anti-Catholic campaign in the 1870s that was headed up by Adalbert Falk.
This movement limited the movement of the clergy and dissolved religious orders.
ANSWER: Kulturkampf
[10] The political cartoon "Dropping the Pilot" depicted this man forcing Bismarck's resignation as chancellor. This became emperor of Prussia in 1888 and reigned until the end of World War I.
ANSWER: Wilhelm II [or William II; or Friedrich Wilhelm Viktor Albert; prompt on Wilhelm; prompt on William]

030-10-23-09214
15. The central family of this work narrowly avoids disgrace when Lydia elopes with Mr. Wickham. For 10 points each:
[10] Name this novel, in which Elizabeth Bennet decides to marry Mr. Darcy.
ANSWER: Pride and Prejudice
[10] Pride and Prejudice was written by this 18th-century British author. She also wrote Sense and Sensibility.
ANSWER: Jane Austen
[10] In this Austen novel, Walter Elliot leases his house out to Admiral Croft, which eventually leads to Anne Elliot reconciling with Captain Frederick Wentworth.
ANSWER: Persuasion
16. This is the home of the "House of the Rising Sun" in a folk song whose most notable cover is by The Animals. For 10 points each:
[10] Name this city. The song "Iko Iko" depicts a confrontation between two groups of revelers in this city on Mardi Gras.
ANSWER: New Orleans
[10] This New Orleans musician's biggest international hit was his cover of "Blueberry Hill." An apocryphal story claims that Pat Boone wanted to change the title of his first major hit to "Isn't That a Shame."
ANSWER: Fats Domino [or Antoine Dominique Domino Jr.]
[10] This New Orleans-based record label, founded by Birdman and his brother Slim, first found national success with a group called the Hot Boys, which included B.G., Lil Wayne, and Juvenile.
ANSWER: Cash Money Records
17. The idea of comparing minerals by scratching them against other minerals was first suggested by Theophrastus in 300 BC, but this tool was not created until 1812. For 10 points each:
[10] Name this mineralogical tool that gives diamond a value of ten in terms of relative values of its namesake quality.
ANSWER: Mohs Scale of Mineral Hardness [accept Mohs hardness scale; prompt on hardness scale] [10] Number six on the Mohs hardness scale is the orthoclase variety of this mineral which also has a sodium-containing plagioclase variety.
ANSWER: feldspar
[10] Number three on the Mohs hardness scale is calcite, which can display this effect which results from it having two indices of refraction. It causes images viewed through the material to appear doubled.
ANSWER: birefringence
091-10-23-09217
18. At the end of this play, only the servant Firs is left onstage. For 10 points each:
[10] Name this Russian play in which Madame Ranevsky decides to sell her estate.
ANSWER: The Cherry Orchard [or Vishniovy Sad]
[10] The Cherry Orchard was written by this Russian playwright of Uncle Vanya with a namesake "gun." ANSWER: Anton Pavlovich Chekhov
[10] This Chekhov play follows Olga, Maria, and Irina Prozorov, who dream of returning to Moscow. ANSWER: Three Sisters [or Tri Sestry]

080-10-23-09218
19. August Spies was found guilty following this event. For 10 points each:
[10] Name this 1886 labor riot in Chicago that ended after someone threw a bomb into the crowd.
ANSWER: Haymarket Riot [accept equivalents for riot like affair]
[10] The events of the Haymarket Riot became the inspiration for this holiday, sometimes known as International Workers' Day, used to celebrate the implementation of the eight hour work day.
ANSWER: May Day [prompt on May 1st]
[10] Some anecdotal evidence claims the bomb was thrown from guards of this security agency. Guards from this agency had earlier been sent in to break up the Molly Maguires in the 1870's.
ANSWER: Pinkerton National Detective Agency
20. This artist depicted two shadowy women, one of whom holds a cup, in the background of his painting Sarah Siddons as Tragic Muse. For 10 points each:
[10] Name this first President of the Royal Academy, a rival of Thomas Gainsborough who was the preeminent British portrait artist of the 1700s.
ANSWER: Sir Joshua Reynolds
[10] Reynolds's rival Gainsborough was renowned for this portrait of Jonathan Buttall resplendent in garb of a certain color.
ANSWER: The Blue Boy
[10] Gainsborough also painted a newlywed couple with this surname below a sprawling tree in the English countryside; the husband holds a rifle while his wife's blue dress billows over a bench.
ANSWER: Andrews [or Mr and Mrs Andrews]
21. Notable ones include "Vissi D'Arte" and "When I am Laid in Earth." For 10 points each:
[10] Give this term from opera for a piece designed for one voice, usually with orchestral accompaniment. ANSWER: aria
[10] This type of aria, popular during the Baroque period, took on an A-B-A form to contrast two differing states of emotion, much as its namesake musical notation would provide for.
ANSWER: aria da capo
[10] Along with Gaetano Donizetti, this Italian composer was a proponent of bel canto opera, which stresses "beautiful singing." Some of his operas include The Sleepwalker and Norma.
ANSWER: Vincenzo Bellini

