Tournament 16
Round 13

1. One character in this novel is a pious singing man named David Gamut. This novel opens as Lieutenant Colonel Munro and his two daughters are being escorted from Fort Edward to Fort William Henry; after nearly being trapped by Magua they are rescued by a man named Hawkeye. Published after The Pioneers and before The Prairie, this work's title character is Uncas, the son of a chief named (*) Chingachgook, who is a friend of the protagonist Natty Bumppo. For 10 points, name this second of the The Leatherstocking Tales by James Fenimore Cooper.
ANSWER: The Last of the Mohicans
2. The time it takes for this process to occur in a test tube is measured in the aPPT and PT tests. An early step in this process is the conversion of prekallikrein to kallikrein. The drug warfarin inhibits it by inhibiting reduction of Vitamin $K$, thus preventing synthesis of namesake factors such as prothrombin. One disorder of this process, von Willebrand disease, results from an inability to aggregate (*) platelets. For 10 points, name this process necessary to stop the loss of blood from an injured vessel, which is impaired in hemophilia.
ANSWER: blood clotting [or coagulation]
3. This poet wrote about the "eternal sunshine of the spotless mind" in the poem "Eloisa to Abelard." Another of his works contains aphorisms such as 'To err is human, to forgive divine" and "A little learning is a dangerous thing." His satirical works include a celebration of (*) Dullness which mocks Colley Cibber and a mock-heroic epic poem in which a tress of Belinda's hair is stolen. For 10 points, name this poet of The Dunciad and The Rape of the Lock. ANSWER: Alexander Pope
4. The Black Warrior River flows through the western portion of this state. This state is home to New Echota and also names a river whose northern section is known as the Coosa. In the north of this state lies a cities home to the Marshall Space Flight Center. In its south lies a port city where during the Civil War Admiral Farragut is believed to have exclaimed "damn the torpedoes, full speed ahead!" Those two cities are (*) Huntsville and Mobile respectively. For 10 points, name this state of the Southeastern U.S. home to the cities of Birmingham and Montgomery.

## ANSWER: Alabama

5. ATM uses this type of circuit where a path is setup ahead of time and packet sequence is preserved. Multiprogramming is made easier through a system using address translation through page tables, which is called this type of memory. That system abstracts the physical memory of the system. Programs written for computer architectures not physically present can be executed by this type of ${ }^{(*)}$ machine. That type of machine is used by Java. For 10 points, name this word that when combined with reality means a world that exists only within a computer.
ANSWER: virtual
6. This country became a republic after forcing into exile its last king, Kigeli V. Its first president in independence was Grégoire Kayibanda, whose successor died in a plane crash while traveling with Cyprien Ntaryamira. That death of this country's president Juvénal Habyarimana sparked an event that resulted in (*) Paul Rusesabagina keeping over one thousand people safe in his hotel. For 10 points, name this African country in which over 800,000 citizens were killed during a genocide against the Tutsi led by a number of Hutu militia groups in 1994.
ANSWER: Republic of Rwanda [or Republika y'u Rwanda]
023-10-23-13107
7. After saving Hesione from a sea monster, this figure killed her father Laomedon when he didn't receive his payment. He borrowed the goblet of Helios to cross the sea. He spent three years as Omphale's servant after killing Iphitus. This figure killed Antaeus by lifting him from the ground and scared away the Stymphalian birds by making noise. He diverted some rivers to clean the (*) Augean stables for Eurystheus. As a child of Zeus and Alcmene, he was antagonized his whole life by Hera. For 10 points, name this Greek hero who completed twelve labors.
ANSWER: Heracles [or Hercules]
8. This fight occurred where Hermann Hoth's forces met up with a larger army. A high-ranking POW from this battle was one subject of the declaration 'a marshal will not be exchanged for a lieutenant." It is commemorated by an enormous statue of a woman pointing a sword, The Motherland Calls, and was the turning point of the Great Patriotic War. After five hundred tanks rolled to this fight, Vasily Chuikov declared "We shall hold the (*) city or die here." For 10 points, Friedrich Paulus's panzers were defeated in 1943 at what World War II siege in the USSR?
ANSWER: Battle of Stalingrad [or Siege of Stalingrad]
9. Alexander Scriabin associated this note with the color green, and the oboe d'amore is a transposing instrument 'in' this note. Using only the white keys of a piano, this is the fourth note of the Phrygian mode and first of the Aeolian mode. Edvard Grieg's piano concerto and Beethoven's (*) "Fur Elise" are both in this note's minor key. When tuning the orchestra, the oboe plays this note at 440 Hertz, a major sixth above Middle C. For 10 points, name this note of the musical scale, the relative minor of C major and start of a major scale with three sharps.

## ANSWER: A

082-10-23-13110
10. This man's obsession with cocaine as a medical substance led to the surgery that he ordered performed on Emma Eckstein's nose, which ended in failure. He made the argument that since inanimate objects predated living ones, a person is driven towards death, or thanatos, in his text Beyond the Pleasure Principle, which would form the backbone of his theory of the (*) conflict between life and death drives. He also furthered the division of the human mind into components called the id, the ego, and the super-ego. For 10 points, name this Austrian psychologist, the author of The Interpretation of Dreams.
ANSWER: Sigmund Freud
11. Frank Gorshin portrayed this character on a live action television series. In ThrillKiller, he appears as a psychiatrist counseling Barbara Gordon. In one appearance, he murders his boss Fred Stickley but tampers with the evidence to make it appear like a suicide. He uses the letter 13, 18, and 5 to spell out his name as "Mr. E". In that film, he teams up with (*) Two Face to sell The Box to steal intelligence from the residents of Gotham City. Jim Carrey portrayed him in Batman Forever, a film in which he starts off known as Edward Nygma. For 10 points, name this green suited Batman villain known for posing puzzling questions.
ANSWER: The Riddler [prompt on Edward Nygma before mentioned]
064-10-23-13112
12. A 'magic" one of these measures reduces the effect of nuclear spin interactions in NMR spectroscopy. An Ewald ("YOU"-uhld) sphere shows the relationship between wavelength, distance, the unit cell, and this measure of the diffracted $X$-rays. The value of the reflection coefficient for p-polarized light is $\mathbf{(}^{*}$ ) zero at one of these measures. Snell's law relates phase velocity to the sines of two of these measures. For 10 points, name these measures, examples of which include a critical one, Brewster's one, and ones "of incidence."
ANSWER: angles [or magic angles before "cross-section"; or measure of the angle or synonyms]
026-10-23-13113
13. In 215 AD, the emperor Caracalla ordered a massacre of the youth of this city after being ridiculed in some satires. This city was designed by Dinocrates and constructed by Cleomenes of Naucratis. The Septuagint was translated here. Mark Antony declared Caesarion King of Kings in a set of donations named for this city. The $(*)$ Arian heresy originated in this city. Its island of Pharos is home to a namesake lighthouse and it was the site of the greatest library in the ancient world. For 10 points, name this Egyptian city founded by and named for Alexander the Great.
ANSWER: Alexandria
015-10-23-13114
14. Early in his career this man paired with Bubber Miley to start the Washingtonians, a group that pioneered the "Jungle Sound." He composed a three-part suite based on African-American history, Black, Brown, and Beige, and co-wrote 'Satin Doll" with his frequent collaborator Billy Strayhorn. His song (*) "Mood Indigo" was popularized by his stint at the Cotton Club. For 10 points, name this jazz pianist and bandleader whose songs include "It Don't Mean a Thing (If It Ain't Got That Swing)" and "Take the "A" Train."
ANSWER: Edward Kennedy "Duke" Ellington
015-10-23-13115
15. One writer from this nation described Horacio's obsession with La Maga in a novel that suggests different ways to skip through its chapters, entitled Hopscotch. One author from this nation wrote a novel in which a homosexual hairdresser spies on a political prisoner, entitled Kiss of the Spider Woman. Besides Julio Cortazar and Manuel Puig, this nation was home to an author who described the universe as a series of hexagonal rooms in "The Library of (*) Babel" and also wrote "The Garden of Forking Paths." For 10 points, name this home country of Jorge Luis Borges (HOR-hay LWEES BOR-hays).
ANSWER: Argentina [or Argentine Republic; or República Argentina]
16. This author wrote about the ridiculousness of a feathery creature with a horse's body and man's head in a letter to the Pisones. Thanks to his patron Maecenas, this poet lived on a "Sabine Farm" that he wrote of frequently. On poem by this man urges diligence against the Parthians and notes that it is sweet and $\left(^{*}\right)$ right to die for one's country. This poet praised Homer for beginning the Iliad "in medias res." For 10 points, name this Roman poet of four books of Odes and a manual of literary theory entitled Ars Poetica.
ANSWER: Horace [or Quintus Horatius Flaccus]
17. A dice game goes on in the bottom right of an Emil Nolde painting of this scene, and Salvador Dali's depiction of it simultaneously explores the unfolding of a hypercube. The central figure wears a Jewish prayer shawl as a synagogue burns in the background in a Mark Chagall painting titled after a White version of this scene. Matthias Grünewald is also known for a depiction of this scene which contains a group of (*) weeping women and the Latin acronym INRI just above the central person's head. For 10 points, what scene depicts Christ on the cross?
ANSWER: Crucifixion [do not accept "Descent from the Cross"; do not accept "Deposition"]
18. The Box-Mueller transformation converts a uniform distribution to this distribution. If the sum of two random variables has this distribution, then both of those random variables have this distribution by Cramer's Theorem. The distribution of sample means of any distribution converges to this distribution by the Central Limit Theorem. The integral of this function, the error function, allows one to calculate (*) probabilities based on z -scores, which represent the number of standard deviations away from the mean of this distribution. For 10 points, name this distribution that resembles a bell curve.
ANSWER: normal distribution [or Gaussian distribution; prompt on bell curve]
003-10-23-13119
19. According to Timothy Williamson, this concept is unanalyzable. Plato's dialogue Theaetetus deals with the definition of this concept. Its propositional variety is distinguished from the procedural variety, and it can be classified as a priori or a posteriori. Gettier problems are used to argue against the traditional definition of this concept as (*) justified true belief. For 10 points, name this concept which is studied in epistemology.

## ANSWER: knowledge

20. This future president led the "Amalgamator" faction in his home state. He was a longtime friend and roommate of the only Vice President to be sworn in on Cuban soil, William Rufus King. As president, he ardently supported the pro-slavery Lecompton Constitution for Kansas. Along with John Mason and Pierre Soulé, he signed the (*) Ostend Manifesto. Late in his term, Congress tried to stem factionalism with the Crittenden Compromise. For 10 points, name this bachelor President who won the election of 1856 and served as president on the eve of the Civil War.
ANSWER: James Buchanan
21. In one poem, this man wrote that he was "betrothed unto your enemy," and would never "be chaste, except you ravish me." This poet of "Batter my heart, three person'd God" wrote that he and his lover were two "as two stiff compasses are two" in another work. He also wrote a poem about a creature, which "pamper'd swells with one (*) blood made of two." For 10 points, name this Metaphysical poet of the Holy Sonnets, "A Valediction: Forbidding Mourning," and "The Flea." ANSWER: John Donne
22. Though not the Plum Fuss, one name for the War of the Bavarian Succession comes from this crop due to the constant food shortages for troops. Its cultivation was championed by Antoine Parmentier. This crop was sponsored by Marie Antoinette as a way to improve yields on small acreages of land. Possibly introduced to Europe via the Americas and the Canary Islands, this crop experienced a disease that caused a mass $\left({ }^{*}\right)$ emigration to the United States from Ireland in the nineteenth century. For 10 points, name this tuber, the namesake of a disastrous famine.
ANSWER: potato
040-10-23-13123
23. The Lucas circles can be drawn by inscribing a square in this other geometric shape. Clark Kimberling has catalogued over three thousand centers of this shape, some of which include the Nagel point and the nine-point center. Kimberling center $X_{1}$ refers to the point at which the angular bisectors intersect; that point does not necessary lie on the Euler line, unlike the $\left(^{*}\right)$ circumcenter, orthocenter, and centroid. For 10 points, name this geometric shape whose angles add up to one hundred eight degrees and has three sides.
ANSWER: triangle
24. In the later part of this novel, Chao Yun is the only survivor of the Five Tiger Warriors, and the Shu Dynasty falls as a result of weak leadership. For 10 points each:
[10] Name this novel, which tells the story of the fall of the Han Dynasty and the rise of general Cao Cao and emperor Ssu-ma Yen.
ANSWER: The Romance of the Three Kingdoms [or San kuo chih yen-i]
[10] The Romance of the Three Kingdoms is one of the classical novels of country, alongside such works as Journey to the West and The Water Margin.
ANSWER: People's Republic of China [or Zhonghua Renmin Gongheguo]
[10] This other classical Chinese novel dates from the Qing (ching) Dynasty, and is about a magical block of jade which influences the Chia family's intrigues at the Imperial court.
ANSWER: The Dream of the Red Chamber [or The Story of the Stone; or Hung-lou Meng]
019-10-23-13201
25. Monique Peytral made reproductions of the artwork found here for a replica that opened in 1983. For 10 points each:
[10] Name this site in southwestern France, where in 1940 modern man first discovered cave paintings. ANSWER: Lascaux
[10] In one painting from Lascaux, an erect man stands next to the wounded body of one of these animals. Their prevalence in Lascaux's main chamber led it to be named the "Hall of" these animals.
ANSWER: bulls [do not accept or prompt on similar answers]
[10] Another civilization that placed emphasis on bulls was found by Arthur Evans, who excavated this Cretan palace mythically ruled by Minos.

## ANSWER: Knossos

003-10-23-13202
3. This era began with the ratification of the Eighteenth Amendment in 1919, and is widely acknowledged as bringing about an increase in organized crime. For 10 points each:
[10] Give the name for this period in which, with few exceptions, it was illegal to manufacture or sell alcohol in the United States.

## ANSWER: Prohibition

[10] This bill, also known as the National Prohibition Act, was the enabling legislation for the Eighteenth Amendment.
ANSWER: Volstead Act
[10] Frances Willard led this all-female group, which was a leading advocate of Prohibition from its founding in 1874.
ANSWER: Women's Christian Temperance Union [or WCTU]
082-10-23-13203
4. Answer these questions about yeast, for 10 points each.
[10] Yeasts are part of this eukaryotic kingdom which also includes mold and mushrooms.
ANSWER: fungi or fungus
[10] Yeast typically reproduce asexually through this method in which in the daughter cell is attached to the parent cell as it matures.
ANSWER: budding
[10] Yeast belong to this class of organisms which require oxygen for growth and cellular respiration.
ANSWER: obligate aerobes (prompt on "aerobe")
5. She claimed to hear voices from Saint Catherine, Saint Michael, and Saint Margaret. For 10 points each: [10] Name this French hero of the Hundred Years' War who was burned at the stake in 1431.
ANSWER: Joan of Arc [or Jeanne d'Arc]
[10] Joan made her reputation by lifting the siege on this French city. For this feat, she is sometimes referred to as the "maid of" this city.
ANSWER: Orleans
[10] Joan of Arc was burned at the stake in this city, which is known for its magnificent cathedral and for being the historical capital of Normandy.
ANSWER: Rouen
015-10-23-13205
6. This organ contains the Lateral geniculate nucleus and the hippocampus. For 10 points each:
[10] Name this part of the nervous system that also contains the hypothalamus.
ANSWER: brain
[10] This part of the brain which is latin for little brain coordinates movement and balance.
ANSWER: cerebellum
[10] This lobe of the cerebral cortex is located behind the frontal lobe and is important in the perception of touch and temperature.
ANSWER: parietal lobe
001-10-23-13206
7. He wrote "Down in the flood of remembrance, I weep like a child for the past" in his poem "The Piano." For 10 points each:
[10] Name this English author who wrote about Paul Morel in Sons and Lovers.
ANSWER: David Herbert Richard Lawrence
[10] D. H. Lawrence wrote this widely censored novel about a paralyzed baronet and his wife's affair with Oliver Mellors.
ANSWER: Lady Chatterley's Lover
[10] This Lawrence novel is a sequel to The Rainbow and follows Gudrun and Ursula Brangwen.
ANSWER: Women in Love
015-10-23-13207
8. For 10 points each, name these musical terms.
[10] In this musical form, a main theme alternates with succeeding different ones, resulting in patterns like A-B-A-C-A. During the Classical and Romantic periods, it was often used for the final movement of symphonies.
ANSWER: rondo
[10] This word identifies notes played detached from one another. In sheet music, it is marked by placing a dot above notes.
ANSWER: staccato
[10] The time signature of a piece of music refers to the number of these units of rhythm per measure. In three-four time, each measure contains three of them.
ANSWER: beats
9. This man dedicated his Passions of the Soul to Elizabeth of Bohemia and discussed Newton's Laws of Motion in his Principles of Philosophy. For 10 points each:
[10] Name this French philosopher who argued for the existence of God in his Meditations on First Philosophy.
ANSWER: René Descartes ("day"-"CART")
[10] Descartes may be best remembered for the phrase "Cogito ergo sum," which translates to this English phrase.
ANSWER: "I think, therefore I am" [or "I think, therefore I exist"; accept equivalents]
[10] Descartes first wrote "I think, therefore I am" in French in this work which describes how to use rationalist approaches to find understanding.
ANSWER: Discourse on Method

083-10-23-13209
10. In this character's first operatic appearance, Apollo appears from behind a cloud to take him to heaven, where he can be reunited with Eurydice. For 10 points each:
[10] Name this mythical lyre-player who was the subject of Claudio Monteverdi's first opera.
ANSWER: Orpheus [accept L'Orfeo]
[10] This composer's Orpheus ed Eurydice was the first of his "reform operas," in which he stripped away the excess of eighteenth-century opera seria.
ANSWER: Christoph Willibald Gluck
[10] This French composer's comic opera Orpheus In The Underworld is best known today for its "Galop Infernal" and its associated can-can dance.
ANSWER: Jacques Offenbach
082-10-23-13210
11. This man's has a science fiction alter-ego named Tek Jansen and a gun named Sweetness. For 10 points each:
[10] Name this former correspondent for The Daily Show who now hosts his own satirical Comedy Central show.
ANSWER: Stephen Colbert
[10] After breaking his left wrist Colbert popularized the "WristStrong" bracelet, a nod to the LiveStrong bracelets produced by this athlete.
ANSWER: Lance Edward Armstrong
[10] One of Colbert's most frequent guests is this astrophysicist, director of the Hayden Planetarium, and author of The Pluto Files.
ANSWER: Neil deGrasse Tyson
015-10-23-13211
12. In September 2009, Prime Minister Gordon Brown issued a formal apology for the British government's treatment of this man. For 10 points each:
[10] Name this developer of an eponymous "test" for artificial intelligence, as well as a hypothetical computing "machine," who killed himself with a poisoned apple after being arrested for homosexuality. ANSWER: Alan Mathison Turing
[10] Turing, building on the Polish bomba project, was also essential to breaking the code used in this German wartime communications device.
ANSWER: Enigma machine
[10] Simultaneously with this American logician, Turing developed a thesis stating that only recursive functions are mechanically computable, and that any computable function can be computed by a Turing machine.
ANSWER: Alonzo Church
13. This man offers his two virgin daughters to a crowd that gathers outside his house after he invites two angels inside. For 10 points each:
[10] Name this character from the Bible who escapes to Zoar when he is warned by those two angels that he must flee.
ANSWER: Lot
[10] The story of Lot and the destruction of Sodom and Gomorrah occur in this first book of the Bible.
ANSWER: Book of Genesis
[10] While fleeing, Lot's wife looks back at the destruction being wrought on Sodom and Gomorrah and turns into this substance.
ANSWER: pillar of salt
023-10-23-13213
14. This artist depicted a spinning loom in his The Spinners and depicted Justin of Nassau handing over the keys of his city in The Surrender of Breda. For 10 points each:
[10] Name this court painter to Philip IV of Spain who also painted a predominantly-red portrait of Pope Innocent X.
ANSWER: Diego Rodríguez de Silva y Velázquez
[10] Velazquez included himself in this canvas, which also features the dwarf Maribarbola, the Infanta Margarita, and a distant reflection of Philip IV and his wife.
ANSWER: Las Meninas [The Maids of Honor]
[10] This 20th century British painter executed a series of "screaming Popes" modeled after Velasquez's Portrait of Pope Innocent X.
ANSWER: Francis Bacon
082-10-23-13214
15. This country is divided into regions called upazilas and thanas. For 10 points each:
[10] Name this Asian nation whose second largest city is Chittagong.
ANSWER: People's Republic of Bangladesh
[10] Much of Bangladesh is a massive delta containing the Ganges River and this other river whose lower section is called the Jamuna. It takes its name from a certain Hindu god.
ANSWER: Brahmaputra River
[10] From 1947 to 1971 Bangladesh was a territory of this other Asian nation whose largest cities include Karachi and Islamabad.
ANSWER: Islamic Republic of Pakistan
16. This policy aimed to decrease tensions with Eastern Europe. For 10 points each:
[10] Name this policy whose name is German for "Eastern Policy."
ANSWER: Ostpolitik
[10] Ostpolitik was the brainchild of this Chancellor of West Germany who resigned after the Guillaume Affair.
ANSWER: Willy Brandt [or Herbert Ernst Karl Frahm]
[10] The current Chancellor of Germany is this woman, the second woman to chair the G8.
ANSWER: Angela Merkel [or Angela Dorothea Kasner]
024-10-23-13216
17. After the exile of Saad Zaghlul this country's populace arose in revolt in 1919, resulting in independence from the UK in 1922. For 10 points each:
[10] Name this Middle Eastern nation that has been ruled by Anwar Sadat and Hosni Mubarak.
ANSWER: Arab Republic of Egypt [or Jumhuriyat Misr al-Arabiyah]
[10] Egypt was reformed in the early 19th century by this Albanian-born leader who declared himself
"Khedive" and modernized the country.
ANSWER: Muhammad Ali Pasha
[10] Muhammad Ali held a banquet so that he could ambush and kill the remnant of this class of slave soldiers who had ruled Egypt previously and still held considerable power.
ANSWER: Mamluks [or Mamelukes]
015-10-23-13217
18. He liked to write poetry on his baseball glove and his death caused his brother to break all the windows in the garage. For 10 points each:
[10] Name this little brother of Holden Caulfield in The Catcher in the Rye.
ANSWER: Allie
[10] The Catcher in the Rye was written by this reclusive American author of Nine Stories.
ANSWER: Jerome David Salinger
[10] Many of Salinger's writings focused on members of this fictional family including Franny, Zoey, and Seymour.
ANSWER: Glass
015-10-23-13218
19. These particles come in three flavors: electron, muon, and tau. For 10 points each:
[10] Name these particles which are like electrons, but with no electric charge. They are hard to detect because they can pass through ordinary matter.
ANSWER: neutrinos
[10] Neutrinos were hypothesized by this scientist who also formulated a namesake "exclusion principle." ANSWER: Wolfgang Ernest Pauli
[10] Other than gravitation, this is the only one of the four fundamental interactions which can affect neutrinos.
ANSWER: weak interaction [or weak nuclear force]
20. This character stabs the French printer Gerard Duval and slowly watches him die before talking to his corpse. For 10 points each:
[10] Name this character who is pressured by the schoolteacher Kantorek to enlist in the army.
ANSWER: Paul Bäumer [accept either name]
[10] Paul Baumer is the protagonist of this German war novel by Erich Maria Remarque.
ANSWER: All Quiet on the Western Front [or Im Westen nichts Neues]
[10] All Quiet on the Western Front, like A Farewell to Arms and The Enormous Room, is set during this war.
ANSWER: World War I [or the Great War]
015-10-23-13220
21. The XSL attack was designed against this cipher. For 10 points each:
[10] Name this symmetric block cipher developed by two Belgians which superseded DES as a national standard.
ANSWER: AES [or Advanced Encryption Standard; or Rijndael]
[10] AES and RSA are two of the ciphers employed by TLS which is used to encrypt this protocol for requesting and sending HTML documents on the web. It is followed by colon slash slash prefixes web addresses.
ANSWER: HTTP [or hypertext transfer protocol]
[10] MD5 and SHA are this type of cryptographic algorithm. These algorithms take in data and produce a characteristic fixed string which can be used as signatures or checksums.
ANSWER: hash algorithm [or hashing algorithm]

