Tournament 15
Round 8

1. Pieter Brueghel the Elder's painting of one of these events depicts a woman sitting in front of a dark green rectangular 'cloth of honor'" under a paper crown. Another painting of one of these events depicts a mirror surrounded by the stations of the cross in the background below the artist's signature. In that painting of one of these events, a man in a ${ }^{(*)}$ large black hat holds hands with a woman holding the folds of her green dress in front of her. For 10 points, name this type of event depicted in a Jan van Eyck painting of the Arnolfini couple.
ANSWER: weddings [or marriages]
2. In 1985, a so called "peace convoy" was prevented from accessing this site in the "Battle of the Beanfield." John Aubrey discovered fifty-six namesake "holes" at this location, which was chosen by Thomas Hardy as the place where the police arrest Tess of the d'Urbervilles. A recreation of this site using (*) cars can be found in Alliance, Nebraska. Inigo Jones concluded that it was the location of a Roman temple, but modern anthropologists believe it was erected almost five thousand years ago. For 10 points, name this formation of rocks in Salisbury, England.
ANSWER: Stonehenge
3. This composer's String Quartet in Four Parts drew on the Indian association of the seasons to different creative forces. His collection Sonatas and Interludes requires placing screws, bolts, and pieces of rubber inside the piano, a technique he developed called the "prepared piano." He created a piece played by twelve radios tuned to random stations, the fourth of his Imaginary Landscapes. One of his works for piano was inspired by his visit to Harvard's anechoic chamber, and consists of a performer sitting at a piano and not $\left(^{*}\right.$ ) playing for the title length of time. For 10 points, name this avant-garde American composer of 4'33' (four minutes and thirty-three seconds).
ANSWER: John Cage
4. Kant and Laplace's hypothesis for the mechanism of solar system formation is named for this kind of structure. An example of this structure is the first item in the Messier (MESS-ee-ey) catalog. One of these in Cygnus is named for the fact that it $\left(^{*}\right)$ resembles North America. Types include emission, reflection, and planetary and one found in Orion takes its name from its shape, a horsehead. For 10 points, give this term for a cloud of interstellar dust, examples of which include the "crab."
ANSWER: nebulas [or nebulae]
5. In one work, this thinker divided the economic and cultural aspects of a society into the "base" and "superstructure." He described the inevitable alienation that occurs when people are separated from the products of their labor, and labeled the practice of adding superficial value to goods as "commodity fetishism." This German philosopher described the "history of all hitherto existing society" as "the history of (*) class struggles." For 10 points, name this collaborator with Fredreich Engels on Das Kapital and The Communist Manifesto.
ANSWER: Karl Marx
6. This city was formed by the merger of Juneautown and Kilbournetown, and its Mitchell Park Horticultural Conservatory is known locally as "the Domes." This city is located where the Menomonee and Kinnickinnic Rivers join with its namesake river to form a bay on Lake Michigan. This city is the location of The Captain Frederick Pabst Mansion and (*) Marquette University. For 10 points, name this city known for its brewing industry, the home of Harley-Davidson and the largest city in Wisconsin.
ANSWER: Milwaukee, Wisconsin
7. This play opens as Madame Pernelle berates her son for his inhospitality. In this play, Dorine strives to help her mistress Mariane marry her love, Valere. At the end of this play, the title character steals a box of evidence that would incriminate the protagonist's friend Argas. The title character of this play is exposed by (*) Damis after attempting to seduce his host's wife Elmire. For 10 points, name this play whose title character masquerades as a holy man to deceive Orgon, written by Moliere.
ANSWER: Tartuffe
8. These structures have one end in a namesake organizing center, and their lengths can fluctuate wildly through a phenomenon known as dynamic instability. $\left({ }^{*}\right)$ Kinesins move molecules towards the plus end of these structures, while dyneins move molecules towards the minus end. Centrioles are formed from these cytoskeletal structures, as are cilia and flagella, in which these structures are arranged in a " $9+$ 2 " manner. For 10 points, name these parts of the cytoskeleton that are larger than actin filaments or intermediate filaments and are made from the protein tubulin.
ANSWER: microtubules
003-10-19-08109
9. Materials with this property can produce a series of audible clicks in the presence of an increasing magnetic field, via the Barkhausen ('BARK"-how-zen) Effect. Pierre-Ernest Weiss explained this property by proposing the existence of domains, which are all (*) aligned in this property. This property no longer exists above the Curie temperature, and materials with this property provide the canonical examples of hysteresis (HISS-tur-EE-sis). For 10 points, identify this type of magnetism most commonly exhibited by iron.
ANSWER: ferromagnetism
003-10-19-08110
10. One leader of these people cried "Vae victis!" after winning the Battle of Allia. Groups of these people include the Aedui and the Helvetii. A notable commentary begins by noting that all of their land is divided into three parts. Different groups of these people inhabited provinces denoted "Cisalpine" and "Transalpine." Under (*) Vercingetorix, these people were defeated at the Battle of Alesia by the forces of Julius Caesar. For 10 points, name these ancient inhabitants of modern France who often harassed the Romans.

11. This man used his experiences in Spain to write Tales of the Alhambra and wrote under the pen name "Jonathan Oldstyle." This man's History of New York was written under the pen name of Diedich Knickerbocker. In another of his works, the main character romances Katrina Van Tassel. That character of this author is driven from the title town by (*) Brom Bones, who dresses as the Headless Horseman to terrify Ichabod Crane. For 10 points, name this American author of "Rip van Winkle" and "The Legend of Sleepy Hollow."
ANSWER: Washington Irving
030-10-19-08112
12. One amendment to this agreement, which did not pass the Senate, would have set an age-limit for a particular status and was named for Tallmadge. Jesse B. Thomas added its amendment that set a dividing line through a certain territory. In the "Peoria Speech," Abraham Lincoln spoke out against this agreement's effective repeal in 1854. Due to this agreement, ( ${ }^{*}$ ) Maine was admitted as a free state. For 10 points, name this agreement passed in 1820 that prohibited slavery in the former Louisiana territory north of thirty-six thirty, except in the namesake state.
ANSWER: Missouri Compromise [or Compromise of 1820 until "1820" is mentioned]
084-10-19-08113
13. One poet wrote that if he should die in this conflict, "think only that there's some corner of a foreign field that is forever England." Another poet wrote about the blood "gargling from the froth-corrupted lungs" of a victim of this conflict. Another poet described soldiers in this conflict as "bent double, like old beggars under sacks" and warned civilians not to repeat "the Old Lie." Poets who wrote about this war include (*) Siegfried Sassoon and Rupert Brooke. For 10 points, name this conflict depicted in Wilfred Owen's "Dulce et Decorum Est."
ANSWER: World War I [accept equivalents]
080-10-19-08114
14. This author's major work lifted a major poet "from the sanctity of the cell," made him incredibly joyful, and was presented to him as a translated manuscript by a London interlocutor. This poet described a "frail vessel" being emptied "again and again" and noted "such is thy pleasure," since "thou hast made me endless." He wrote the national anthems of two countries, including (*) India. Yeats introduced the "song offerings" contained in, for 10 points, the Gitanjali of what Bengali writer, the first Asian Nobel Laureate?
ANSWER: Rabindranath Tagore
020-10-19-08115
15. One song by this band bemoans, "Working from seven to eleven every night really makes life a drag." Another of their songs ends with the phrase "dying cough." That song, 'In My Time of Dying," is from the album (*) Physical Graffiti. Their most acclaimed album ends with a cover of Kansas Joe McCoy and Memphis Minnie's "When the Levee Breaks," and also features a song about "a lady who's sure all that glitters is gold." For 10 points, name this band who released "Stairway to Heaven."
ANSWER: Led Zeppelin
16. Much of what is known about this man comes from the diplomat Priscus, who described his death from a nosebleed on the night of his wedding to Ildoco. St. Genevieve allegedly diverted him from Paris through prayers. He replied to a letter from Honoria by demanding half of Rome as dowry. This brother of Bleda was defeated by the Visigoth Theodoric I and Flavius Aetius. Known as the (*) "scourge of God," his invasion of Rome was defeated in 451 AD at the Catalaunian Plains in the Battle of Chalons. For 10 points, name this great leader of the Huns.
ANSWER: Attila the Hun
17. The principle of equalization of this quantity states that for a chemical compound, this quantity is the geometric mean of that of the compound's constituent elements. That principle was developed by Sanderson, who defined this quantity as an atom's (*) electron density divided by its expected electron density. Mulliken defined this quantity as the arithmetic mean of the first ionization energy and electron affinity. The square root of the ionic resonance energy is the definition of this quantity provided by Linus Pauling. For 10 points, name this ability of an atom to attract electrons to itself in a bond.
ANSWER: electronegativity
18. This ruler faced a rebellion by her half-brother known as the Chase-about Raid. The Casket Letters and her affair with David Rizzio are sometimes presented as evidence that she was involved in the death of her husband Lord Darnley. As an infant, she was the object of "the rough wooing." Francis Walsingham discovered evidence that she was involved in the (*) Ridolfi and Babbington Plots. For 10 points, name this Scottish monarch who was imprisoned for nineteen years before being executed by her cousin Elizabeth I.
ANSWER: Mary, Queen of Scots [or Mary Stewart; prompt on Mary]
19. Central to the cult of Mithra was Mithra's slaughter of this kind of animal. Seated images of this animal act as gatekeepers in temples venerating Parvati and Shiva, who rides one called Nandi. In Minoan civilization, youths partook in leaping over this animal by grabbing its $\mathbf{~}^{*}$ ) horns. The sacrifice of Athenians for that practice sent Theseus to Crete to kill a creature that had the head of this animal. For 10 points, identify this animal represented in myth by the Minotaur and the constellation Taurus. ANSWER: bulls [or cows]
20. This city's City Hall features a helical staircase and was designed by Norman Foster, and gardener Joseph Paxton designed the steel-and-glass Crystal Palace for its 1851 Great Exposition. It is home to the pedestrian Millennium Bridge, and its St. Paul's Cathedral was designed by Sir Christoper Wren in the aftermath of its (*) Great Fire in 1666 . For 10 points, name this city on the Thames River whose Westminster Palace features the clock tower known as Big Ben, the capital of Great Britain.
ANSWER: London
21. One of this author's characters is a white man who refuses to treat the main character's toothache, known as Dentist Lincoln. This poet was nominated for a Pulitzer for a collection of poetry which has sections titled "Where Love is a Scream of Anguish" and "Just Before the World Ends." In addition to Just Give Me a Cool Drink of Water 'fore I Diiie, she wrote "On the Pulse of the Morning," which she recited during the Inauguration ceremony of Bill (*) Clinton. For 10 points, name this American poet who wrote the autobiography I Know Why the Caged Bird Sings. ANSWER: Maya Angelou
22. One leader of this country called himself "The Prince of Pacification" and promoted the Hong Duc legal code. That leader was Le Loi. An early independence movement in this country was led by a duo that drowned themselves at the junction of the Day and Red rivers after being defeated by General Ma Yuan. That duo was the Trung Sisters. A portion of this nation was once led by a man who was murdered by ARVN forces in (*) 1963; that leader was Ngo Dinh Diem. For 10 points, name this Southeast Asian nation, another portion of which was once led by Ho Chi Minh.
23. A Spartan festival dedicated to this Greek goddess required boys to try to steal cheese from an altar that was guarded by men with whips. She caused the death of the Aloadae brothers by tricking them to throw spears at each other, and in another story she punished Niobe for boasting by killing her seven daughters. This daughter of (*) Leto had a temple at Ephesus and was responsible for the deaths of the hunters Orion and Actaeon. For 10 points, name this twin sister of Apollo, the Greek goddess of the hunt and wild animals.
ANSWER: Artemis [do not accept "Diana"]
24. The fall of this city resulted in the end of the Palaeologus (pay-lee-AH-lah-gus) dynasty. For 10 points each:
[10] Name this capital of the Byzantine Empire, which fell in 1453.
ANSWER: Constantinople
[10] Constantinople became the capital of this empire after the Byzantine defeat in 1453.
ANSWER: Ottoman Empire
[10] The commander of the Siege of Constantinople was this sultan, who was nicknamed "the Conqueror." ANSWER: Mehmed II [or Mehmed Fatih; prompt on Mehmed]
25. In Japanese mythology, one of these objects, Amen-onu-hoko (AH-men-AH-new-HO-ko) was used to stir up the Japanese islands from the sea. For 10 points each:
[10] Identify this type of weapon, another one of which, the Gae Bulg, was wielded by Cú Chulainn (koo-KULL-en) in Gaelic myth.
ANSWER: spear
[10] Another important item in Gaelic mythology is an animal of this general type, which Finn Mac Cumhail ate to become enlightened. The "ichthys" is a Christian symbol in the shape of this kind of animal. ANSWER: a fish
[10] Gaelic deity Nuada lost this body part in battle, replacing it with a silver prosthesis. In Roman myth, Mucius Scaevola burned his off to show courage; in Norse myth, Thor wears Járngreipr over it to help throw his hammer.
ANSWER: right hand [prompt on hand]
26. Adam Salton attempts to destroy the title creature of this author's novel The Lair of the White Worm. For 10 points each:
[10] Name this Irish author of a novel whose title character attacks Mina Murray before being tracked down and stabbed by Jonathan Harker.
ANSWER: Bram Stoker
[10] Name that Stoker novel, in which Dr. Van Helsing battles the title vampire.
ANSWER: Dracula
[10] After arriving in England, Dracula turns this woman into a vampire, causing the three men who had proposed to her, Quincy Morris, Dr. Seward, and Arthur Holmwood, to cut off her head and pound a stake into her heart.
ANSWER: Lucy Westenra [accept either name]
27. One member of this family spurns George Murchison in favor of her boyfriend Joseph Asagai. For 10 points each:
[10] Name this black family from Chicago’s South Side that decides to use $\$ 10,000$ of life insurance money to buy a house in Clybourne Park.
ANSWER: Younger family
[10] Walter Lee, Beneatha, and Mama Younger appear in this 1950s American play.
ANSWER: A Raisin in the Sun
[10] A Raisin in the Sun was written by this African-American playwright who also wrote Drinking Gourd and Les Blancs.
ANSWER: Lorraine Hansberry
080-10-19-08204
28. For 10 points each, name these cities in Georgia.
[10] Found where its namesake river empties into the Atlantic near the South Carolina border, it is known for its historic architecture in the Colonial and Greek Revival styles.
ANSWER: Savannah
[10] Further up the river, this city on the Fall Line is home to the Strom Thurmond Dam and a golf club that hosts the Masters; it is also the setting for Erskine Caldwell's Tobacco Road.
ANSWER: Augusta
[10] This city, a twin of Phenix City, Alabama, overlooks the start of navigable waters on the Chattahoochee River. It is the third-largest city in Georgia, behind Atlanta and Augusta.
ANSWER: Columbus
019-10-19-08205
29. This man formed the Federalist Party. For 10 points each:
[10] Name this first Secretary of the Treasury who was killed in a duel by Aaron Burr.
ANSWER: Alexander Hamilton
[10] The Federalist Party held this 1814-1815 convention opposing the War of 1812 that discussed the issue of New England secession.
ANSWER: Hartford Convention
[10] This Federalist and governor of South Carolina named a 1795 treaty that defined the U.S. border with Spain. His brother Charles Cotesworth was a two time vice-presidential candidate for the Federalist Party. ANSWER: Thomas Pinckney
30. The differential change in this quantity is equal to the differential change in heat plus the differential change in work. For 10 points each:
[10] Name this total amount of energy contained within a system, which is denoted by capital U.
ANSWER: internal energy
[10] Internal energy can be calculated as three-halves times the number of particles times the ideal gas constant times this quantity, which is measured in Kelvin and represents the average kinetic energy of molecules in a system.
ANSWER: temperature
[10] This quantity is equal to internal energy minus the product of temperature and entropy. A similar quantity named after Josiah Gibbs replaces internal energy in that formula with enthalpy.
ANSWER: Helmholtz free energy [prompt on Helmholtz; prompt on $\underline{\text { F }}$; prompt on free energy]
31. Early support of this idea can be found in the 1789 book An Introduction to the Principals of Morals and Legislation. For 10 points each:
[10] Name this philosophical idea that advocates human actions that provide the maximum amount of happiness the greatest amount of people.
ANSWER: utilitarianism
[10] One proponent of utilitarianism was this English philosopher and author of An Introduction to the Principals of Morals and Legislation.
ANSWER: Jeremy Bentham
[10] This other British philosopher wrote about the "Greatest Happiness Principle" in his book Utilitarianism. He also wrote A System of Logic and On Liberty.
ANSWER: John Stuart Mill
083-10-19-08208
32. In May of 2010, this country's president Umaru Yar'Adua died. For 10 points each:
[10] Name this populous West African country that was once ruled by Sani Abacha, a dictator who had the author Ken Saro-Wiwa executed.
ANSWER: Nigeria
[10] This man is the current president of Nigeria. A onetime governor of Bayesla State, he is a member of the People's Democratic Party.
ANSWER: Goodluck Jonathan
[10] Goodluck Jonathan gained notoriety when he banned the Nigerian soccer team from international travel following their loss in the World Cup. This international governing body of soccer threatened to kick Nigeria out of the organization, and Jonathan lifted the ban.
ANSWER: FIFA [or International $\underline{\text { Federation of } \underline{\text { As}}}$ ssociation $\underline{\text { Football; or the } \underline{F} \text { ederation Internationale de }}$ Football Association]

030-10-19-08209
10. This country fought its colonizer in the so-called Colonial War of 1961. For 10 points each:
[10] Name this country that was home to the FNLA and the UNITA parties and owns the northern exclave of Cabinda, which is separated from it by a strip of the Democratic Republic of the Congo.
ANSWER: Republic of Angola [or Republica de Angola
[10] Angola is a former colony of this nation, which also colonized Macau and earlier sent the first explorer around the Cape of Good Hope in Bartolomeu Dias.
ANSWER: Portugal [or Portuguese Republic; or Republica Portuguesa]
[10] UNITA financed part of the Angolan Civil War by selling this natural commodity, also sold by warlords in Sierra Leone to finance violence.
ANSWER: diamonds [or blood diamonds; or conflict diamonds]
026-10-19-08210
11. For water, this value is 1.33 . For 10 points each:
[10] Name this measure of the speed of light in a vacuum to the speed of light passing through another medium.

## ANSWER: index of refraction [or refractive index]

[10] This law states that the ratio of the indexes of refraction of two media is equal to the ratio of the sine of the angle of incidence to the sine of the angle of refraction when light moves from one medium to another. ANSWER: Snellius's Law [or Descartes's Law]
[10] Above this angle of incidence, a light wave will be totally internally reflected instead of refracting. ANSWER: critical angle
12. This artist produced an oval picture surrounded by rope called Still-Life with Chair Caning. For 10 points each:
[10] Name this Spanish artist of the Family of Saltimbanques and La Vie, who also painted Les Demoiselles d'Avignon and Guernica.
ANSWER: Pablo Ruiz y Picasso
[10] Picasso pioneered this art movement, with "analytic" and "synthetic" branches. Works from this movement tend to depict objects broken up and rearranged to show numerous surfaces.
ANSWER: Cubism
[10] This French artist of Violin and Palette and Violin and Candlestick cofounded Cubism with Picasso. ANSWER: George Braque
13. It shares its name with a Paris building, designed by Jacques-Germain Soufflot (ZHOCK zher-MAY sue-FLOW), which hosts the remains of many prominent Frenchmen. For 10 points each:
[10] Identify this temple to "all the gods," which was originally built by Agrippa. It features a hole in its roof known as the "oculus," and was later reworked under the reign of Hadrian.
ANSWER: the Pantheon
[10] The Pantheon, like the Forum and the Circus Maximus, was an important part of the architecture in this ancient city.
ANSWER: Rome [or Roma]
[10] An important architectural institution in Roman life was this type of building. Notable ones were named for Geta and Caracalla, and each included both the "tepidarium" and the "frigidarium."
ANSWER: public baths
14. One large basin on this planet is Hellas Planitia. For 10 points each:
[10] Name this fourth planet from the sun that has a red color resulting from large amounts of iron oxide. ANSWER: Mars
[10] This largest of the moons of Mars has a large crater called Stickney.
ANSWER: Phobos
[10] This largest system of canyons on Mars is located slightly south of the equator.
ANSWER: Valles Marineris
15. Of the title creature of this poem, the speaker states, "It suck'd me first, and now sucks thee." For 10 points each:
[10] Name this poem in which the poet describes the blood of himself and his would-be lover inside the title animal.
ANSWER: "The Flea"
[10] "The Flea" is a work by this English metaphysical poet and priest. In his poem "A Valediction:
Forbidding Mourning," this poet compares two separated lovers to a compass.
ANSWER: John Donne
[10] In one poem by John Donne, he tells this entity to "be not proud," stating that, ultimately, "thou shalt die."
ANSWER: Death
16. One character in this play, Lopakhin, is the grandson of a serf who purchases the title estate from Madame Renevsky. For 10 points each:
[10] Name this play, which ends with the elderly servant Firs lying forgotten on a sofa as the sound of an ax is heard chopping wood off-stage.
ANSWER: The Cherry Orchard [or Vishnyovy Sad]
[10] The Cherry Orchard is a play by this Russian playwright of Uncle Vanya and The Three Sisters.
ANSWER: Anton Chekhov
[10] In this Anton Checkhov play, Trepilov shoots the title animal and gives it to Nina, claiming that he will shoot himself as well. He does, but suffers minor wounds, and Nina ultimately runs away with Trigorin.
ANSWER: The Seagull [or Chakya]
030-10-19-08216
17. This composer wrote a piano suite depicting his youth in Scenes from Childhood. For 10 points each: [10] Name this German Romantic composer who also composed Papillons, Carnaval, and the Rhenish Symphony.
ANSWER: Robert Schumann
[10] Schumann's first symphony was named for this season, which also names a Benjamin Britten symphony and the season in which Frederick Delius's "First Cuckoo" appears.
ANSWER: Spring [or Spring Symphony]
[10] This other composer conducted the premiere of Schumann's Spring Symphony in addition to composing symphonies of his own like the Italian and Scottish.
ANSWER: Felix Mendelssohn [or Jakob Ludwig Felix Mendelssohn Bartholdy; accept either underlined part]

026-10-19-08217
18. An irregular shape of this membrane can cause astigmatism. For 10 points each:
[10] Name this transparent, protective membrane that serves as the outermost layer of the eye.
ANSWER: cornea
[10] This opaque tissue reaches from the cornea to the back of the eye and gives the eye its white coloring. ANSWER: sclera
[10] This liquid inside the eye fills the space between the lens and the retina.
ANSWER: vitreous humor
023-10-19-08218
19. Her Razzie nominations include one for Return to the Blue Lagoon and one for playing Joan of Arc in Luc Besson's The Messenger. For 10 points each:
[10] Identify this Ukrainian-born actress, who starred as Alice in four Resident Evil films.
ANSWER: Milla Jovovich
[10] Jovovich proclaims "I do not like snoopy reporter" as Katinka in this 2001 satire on male models, which starred Ben Stiller and Will Ferrell.
ANSWER: Zoolander
[10] As Leeloo, Jovovich's love for Bruce Willis's character proves to be the title substance needed to activate a weapon hidden in a pyramid in this 1997 science-fiction film.
ANSWER: The Fifth Element
20. During a period of political upheaval in the late sixth century BCE, this city moved away from the tyranny of Peisistratus (PIH-see-uhs-TRAH-tus) and initiated several democratic reforms under the leadership of Cleisthenes (CLICE-the-neez). For 10 points each:
[10] Identify this city, which was governed through such institutions as the boule, (BOOL-ay) ekklesia, (ek-LEEZ-ee-uh) and areopagus (air-ee-AH-puh-gus).
ANSWER: Athens
[10] A hundred years after Cleisthenes, Athens was led by this husband of Aspasia into the Peloponnesian War with Sparta. He delivered a namesake "funeral oration" and commissioned the Parthenon.
ANSWER: Pericles
[10] Following the death of Pericles in a plague, this merchant became the leader of Athens. Derided by conservatives such as the playwright Aristophanes, he died in battle at Amphipolis.
ANSWER: Cleon
21. Howard Garder posited eight types of it. For 10 points each:
[10] Give this term referring to one's mental capacity. Alfred Binet devised tests to calculate its namesake quotient, and such tests often have a median score of 100.
ANSWER: intelligence
[10] Binet's intelligence test was modified by Lewis Terman, a professor at this Western university where Philip Zimbardo conducted a namesake prison experiment.
ANSWER: Stanford University
[10] In the book The Bell Curve, Richard J. Herrnstein and Charles Murray gave this New Zeland psychologist's name to the effect by which IQ scores have risen with time.
ANSWER: James Robert Flynn

