1. One character in this play claims that he cannot get an appetite until he receives a pink rose for his buttonhole. The value of the "three-volume novel" is discussed shortly before the arrival of Dr. Chasuble, who is scheduled to rechristen one of the central characters of this play. That character is later revealed to have been the baby abandoned at Victoria Station by Miss Prism, which allows Jack Worthing to marry Gwendolyn Fairfax, and Algernon to stop "Bunburying." For 10 points, name this last completed English play of Oscar Wilde.
ANSWER: The Importance of Being Earnest: A Trivial Comedy for Serious People
019-10-21-11101
2. One man with his name, from Freising, was a German chronicler who wrote the "Deeds of Emperor Frederick I." The first modern King of Greece had this name, which was also held by a man who ushered in a namesake Renaissance that included William of Mainz's compilation of the first pontifical book. That emperor with this name married Adelaide of Italy and revived a title that had been vacated forty years earlier. For 10 points, identify this name shared by the first three Holy Roman Emperors, which was also the first name of the Iron Chancellor von Bismarck.

ANSWER: Otto

026-10-21-11102
3. In one story by this writer, the main character borrows the horse Gunpowder from Hans Van Ripper and is heard to become "a justice of the Ten Pound Court." That character failed in his attempt for the hand of Katrina Van Tassel. In another story by this author, the title character heads out with his dog Wolf into the Kaatskills and falls asleep for twenty years. For 10 points, name this American author of The Sketch Book of Geoffrey Crayon, which includes his stories "The Legend of Sleepy Hollow" and "Rip Van Winkle." ANSWER: Washington Irving
4. One person with this last name forced the Bayonet Constitution on Queen Liliuokalani. Another person with this last name lost her seat in the Senate after trying to frame Kay Hagan as an atheist. That woman's husband chose former Bills quarterback Jack Kemp as his running mate during a failed run for the presidency in the 1996 election. For 10 points, give this last name shared by Hawaiian lawyer Sanford and former Senators Elizabeth and Bob.
ANSWER: Dole
002-10-21-11104
5. This character returned from a "Great Hiatus" in 'The Adventure of Wisteria Lodge." Clay and Archie's attempt to tunnel into a bank is foiled by this figure in a short story where a man is hired to copy the encyclopedia. Stapleton is determined to have trained and painted the title dog through this man's efforts in The Hound of the Baskervilles. For 10 points, name this fictional detective created by Sir Arthur Conan Doyle, often accompanied by Dr. Watson.
ANSWER: Sherlock Holmes
6. The presence of significant concentrations of glucose is indicated by this color in Fehling's solution. This color is part of the common name of an endangered woodpecker found in the southern U.S. with scientific name Picoides borealis. Jupiter's moon Amalthea is this color. Our sun is projected to become this type of giant star in several billion years. Litmus is this color at low pH . This color corresponds to light with a wavelength of 650 nm . This color is usually paired with green and blue in computer graphics. For 10 points, name this color which is the color of human blood.
ANSWER: red
7. One work in this genre was written by George Chapman about Bussy d'Ambois. This genre of literature derives its name from the word "goat-song." Friedrich Nietzsche accused Euripides of destroying this literary genre in a book about its "birth." Aristotle argued that this genre produced catharsis in its audience, and claimed that Oedipus Rex was a perfect example of this. For 10 points, name this type of play usually contrasted with comedy.
ANSWER: tragedy
004-10-21-11107
8. In November 2010, this organization's headquarters, 30 Millbank, was briefly taken over by demonstrators protesting its support for a raise in university fees. The backbench members of this party meet as the 1922 Committee, and influence decisions on its Cabinet picks such as current Chancellor George Osborne. This party began to ascend after replacing Michael Howard as leader, and in 2010 allied with Nick Clegg's Liberal Democrats to form a coalition government. For 10 points, name this David Cameron-led party which currently governs the United Kingdom.
ANSWER: Conservative Party of the United Kingdom [or Tory or word forms before it is read]

019-10-21-11108
9. The Suda was an early encyclopedia written in this language. One version of this language, dubbed Koine, was prevalent during classical times, and it was in that version that the Septuagint version of the Bible was written. Its Dimotiki type is currently used in the modern day nation that bears its name, while, in Medieval times, its Byzantine form was widely used. For 10 points, name this language spoken in Athens.
ANSWER: Greek
10. The telencephalon is the embryonic structure from which this part of the body develops. In humans subdivisions include Broca's area and Wernicke's area, and executive functions are thought to be controlled by the basal ganglia in this part of the body. The corpus callosum connects the left and right hemispheres of this part of the brain. For 10 points, name this part of the brain that controls much of the higher level functioning of organisms and is usually paired with the cerebellum.
ANSWER: cerebrum [prompt on brain until mentioned]
084-10-21-11110
11. This god traveled disguised as Freya after Thrymr stole one of this god's possessions. This deity questioned his daughter's suitor until the sun rose, turning that dwarf, Alvis, to stone. This god traveled in a chariot pulled by the goats Tooth-Grinder and Tooth-Gnasher. This deity threatens Loki to be silent four times, and this deity's wife, Sif, had her hair shorn by Loki. After fighting Jormungandr, this god will stumble back nine steps before dying, but not before slaying the beast with his hammer, Mjollnir. For 10 points, name this Norse thunder god.
ANSWER: Thor
12. Chen's Theorem describes the representation of large instances of these. All degrees in a graph with an Euler walk have this distinction. The Goldbach conjecture states that these above a certain value can be written as the sum of two primes. Polynomials whose degree are of this type must have a global maximum or minimum. The positive examples of these correspond to the binary numbers whose least significant place is zero. For 10 points, name these numbers which are multiples of two and thus not odd.
ANSWER: even number [or even integer]
001-10-21-11112
13. This country's southern city of Waw is located on the Jur River; that city is part of its separatist region in with capital at Juba. In the late 1800's a man known as the Mahdi led an uprising in this country culminating at the Battle of Omdurman while in 1898 British and French clashed in this country at Fashoda. The Nile splits into the White and Blue branches in this country, which contains a region plagued by gunmen known as the janjaweed. For 10 points, name this North African nation with capital at Khartoum whose western portion is known as Darfur.
ANSWER: Republic of Sudan
14. After its creation during a stage called the germinal period this cell undergoes cleavage a mitotic form of division sometimes known as cleavage. A human form of this cell becomes a blastocyst on the fifth day and eventually becomes an embryo. These cells are synthesized from two gametes. For 10 points, name this term which refers to initial cell formed when an organism is produced by sexual reproductive process like fertilization.
ANSWER: zygote
15. This man created an etching of a man surrounded by nefarious owls and bats entitled The Sleep of Reason Produces Monsters. A better known work by him has a companion piece subtitled The Charge of the Mamelukes, and this creator of the Los Caprichos series also included his Saturn Devouring His Son among his Black Paintings. A Christ-like figure is illuminated by a lantern while standing in front of a firing squad in one of his best known works, which depicts an event that occurred on the titular date. For 10 points, name this painter of The Third of May 1808.
ANSWER: Francisco José de Goya y Luciente

1A. What is the name given to the lower boundary of the stratosphere. The boundary's name is similar to the layer below.
ANSWER: tropopause
1B. Name the German author who created Oskar Matzerath as the protagonist of his The Tin Drum, the first part of his Danzig Trilogy.
ANSWER: Günter Wilhelm Grass
2A. What South American nation had an economic "Miracle" behind the efforts of the "Chicago Boys" under Augusto Pinochet?
ANSWER: Republic of Chile
2B. What act, which went into effect on February 1, 1920, provided for the enforcement of the Eighteenth Amendment?
ANSWER: Volstead Act [or National Prohibition Act]
3A. This is a 10 -second computation question. Suppose there is a bag filled with 30 cats and 20 of the cats are kittens. What is the probability of picking out a cat that is not a kitten?
ANSWER: $1 / \mathbf{3}$ [or 10/30]
3B. This is a 10 -second calculation question. A triangle's three angles are $\mathrm{x}, 2 \mathrm{x}$ and 3 x . What is the measure of the smallest angle?
ANSWER: $\underline{\mathbf{3 0}}$ degrees or pi/6 radians
4A. Name the scientist whose namesake equation relates the wave function, Hamiltonian, and energy operator. He also names a thought experiment involving a cat.
ANSWER: Erwin Schrödinger
4B. What novel by Chinua Achebe chronicles the downfall of Okonkwo?
ANSWER: Things Fall Apart
5 A . This is a 20 -second computation question. Solve for x in $5 \mathrm{x}+3 \mathrm{y}=80,2 \mathrm{x}-\mathrm{y}=32$.
ANSWER: $\mathrm{x}=\underline{\mathbf{1 6}}$
5B. This is a 20 -second computation question. What is the geometric mean of $1 / 2,1 / 12,1 / 9$ ?
ANSWER: $\underline{1 / 6}$ [or $\underline{0.1667]}$
6A. Name this French-born prince who, along with the Duke of Marlborough, was a winning commander at the Battle of Blenheim during the War of the Spanish Succession.
ANSWER: Prince Eugene of Savoy [prompt on partial answer]
6B. Ornette Coleman's album The Shape of Jazz to Come is an example of what genre of jazz, which eschews traditional structural forms such as meter?
ANSWER: free jazz
7A. This is a 30 -second computation question. Consider the curve $x^{2}+y^{2}=9$. What is the area enclosed by the curve where the sum of the coordinates x and y is greater than or equal to 3 ?
ANSWER: (9/4)pi - 4.5 [or (1/4)(9pi-18)]
7B. This is a 30 -second computation question. If a frustum has a bottom base of area 8 , a top base of area 2 , and a height of 6 , then what is the area of the frustum.
ANSWER: $\underline{\mathbf{2 8}}$

8A. Name the author who wrote Gravity's Rainbow and The Crying of Lot 49.
ANSWER: Thomas Ruggles Pynchon, Jr.
8B. Name the simplest alkane, a compound with formula $\mathrm{CH}_{4}$.
ANSWER: methane [prompt on natural gas]
9A. What former Rangers pitcher spurned the Yankees to return to the Phillies one year to the day after being traded to acquire Roy Halladay?
ANSWER: Clifton Phifer "Cliff" Lee

9B. The Hertzsprung-Russell diagram plots the luminosity of a celestial object against what other property?
ANSWER: temperature
10A. What language invented by L. L. Zamenhof was designed to be a universal language?
ANSWER: esperanto

10B. What religious official cries the adhan, or call to prayer, five times a day from the minaret of a mosque?
ANSWER: muezzin

1. The Supreme Court case Wolf v. Colorado dealt with extending this amendment to the state level. The exclusionary rule is a legal practice applied when this amendment is violated. Another Supreme Court case focusing on this amendment was sparked when Cleveland police officers discovered obscene material in the home of an Ohio woman. That case, Mapp v. Ohio, partially dealt with the fact that the officers in question did not have a warrant. For 10 points, name this amendment of the Bill of Rights which prohibits unreasonable search and seizures.
ANSWER: Fourth Amendment to the United States Constitution
2. This composer's reputation improved dramatically after Arthur Schoenberg wrote an essay championing his music as progressive. This illness of Clara Schumann inspired this composer's Four Serious songs. He included student songs such as "We Have Built a Stately House" and "Gaudeamus Igitur" in a piece this man composed upon receiving an honorary doctorate from the University of Breslau. That work is this composer's Academic Festival Overture. For 10 points, name this composer of the German Requiem, who is grouped with Bach and Beethoven as the "three B's."
ANSWER: Johannes Brahms
030-10-21-11118
3. This president won re-election after bemoaning the efforts of the "Do-Nothing Congress." He replaced Henry Wallace in 1944 after leading a namesake committee to fight wasteful military spending. A recovery program for Europe was named for this President's Secretary of State, George Marshall. This man authorized the use of the atomic bomb on Hiroshima and Nagasaki to force Japan's surrender at the end of World War II. For 10 points, name this President whom the Chicago Daily Tribune claimed was defeated by Thomas Dewey.
ANSWER: Harry S Truman
002-10-21-11119
4. In this painting, a man wearing a vest and bowtie can be seen in an opening near the center, and on the left-hand side a man at a podium writes in a book. A woman dressed in black looks away from the central event in horror, and several men in the background of this work appear to be sleeping; those men are seated in an auditorium and look down at the central action, which is being done by the students of the titular doctor, who holds a scalpel. Depicting a bloody surgery operation, this is, for 10 points, what 1875 painting by Thomas Eakins?

## ANSWER: The Gross Clinic [or The Clinic of Dr. Gross]

5. One of this river's largest tributaries joins it near the town of Buford before rising from the area around Younts Peak and Thorofare Mountain. It is stopped by the Oahe Dam and the Garrison Dam, the latter of which creates Lake Sakakawea. It receives the Milk and Musselshell Rivers near the Fort Peck Dam, while it is formed near the town of Three Forks from waterways including the Jefferson and Madison Rivers. It also flows past a series of cataracts called the Great Falls. For 10 points, name this U.S. river that joins the Mississippi near St. Louis.
ANSWER: Missouri River
6. This man wrote a play in which Joe Keller knowingly ships defective parts to the military during WWII. That play is All My Sons. In another play by this author Rebecca Nurse is accused of a crime and Tituba is a servant whose confession launches the inquest. This author wrote a play that has a contrast between Uncle Ben's success in the diamond minds and the life of his brother Willy Loman. Willy is the titular figure who kills himself in that play. For 10 points, name this author of The Crucible and Death of a Salesman.
ANSWER: Arthur Miller
001-10-21-11122
7. Deep inelastic scattering experiments gave evidence for their existence and a classification model for them was proposed by Gell-Mann. Because of a phenomenon known as color confinement, these particles are never found in isolation, and these particles have fractional charges of negative one-third or positive two-thirds. These elementary particles combine to form hadrons like protons and neutrons. Coming in six flavors, for 10 points, name these particles which have names like up, down, and charmed.
ANSWER: quarks
084-10-21-11123
8. This playwright wrote a work in which Henry Smithers travels to an island ruled by the title character, The Emperor Jones. The problems of the Mannon family after the Civil War make up a work of his inspired by the Oresteia entitled Mourning Becomes Electra. Harry Hope's saloon is the setting of his The Iceman Cometh. He wrote a playing taking place on one day in 1912 which shows the internal turmoil of the Tyrone family. For 10 points, name this author of Long Day's Journey into Night.
ANSWER: Eugene Gladstone O'Neill
001-10-21-11124
9. A Knight Templar in this novel wishes to serve as a champion for a woman facing execution, but is chosen as the order's champion. Another character in this novel is the disguised Richard the Lionheart. That character is hosted by Robin Hood. This novel sees that title knight knock the Templar champion from his horse after being banished by his father Cedric. For 10 points, name this novel by Sir Walter Scott in which the title knight marries Rowena.
ANSWER: Ivanhoe
002-10-21-11125
10. The nuclear version of this term refers to metastable excitations of atomic nuclei. The Cahn-Ingold-Prelog rules are used to name one type of them. The terms cis and trans are used to describe geometric ones, which are of a stero type. The other main type are structural ones. For 10 points, name this term that refers to compounds that are similar in the number and type of atoms but differ in the arrangements of those atoms.
ANSWER: isomers
11. One way of partitioning these is CIDR which uses subnet masking. ARP resolves these to MAC addresses. Today they are mostly 32 bits long, but 128 bit ones are starting to be used because the 32 bit ones are essentially exhausted. Those 128 instances are defined in version 6 of the protocol in which they are used. The loopback one is 127.0 .0 .1 (one twenty seven dot zero dot zero dot one). DNS is used to determine this of the server corresponding to a URL. For 10 points, name these addresses that are used in networks such as the internet.
ANSWER: IP address [prompt on partial answer; or Internet Protocol Address]
12. Jean Cocteau depicts this character as the victim of the "infernal machine" of divine fate. In Euripides's The Phoenician Women, he appears in the final scene to protest his imprisonment and curse his sons Eteocles and Polynices. His burial place is known only to Theseus after he dies at Colonnus in anothr play, which takes place years after he blinds himself with a pin upon learning the cause of a plague. For 10 points, name this victor over the Sphinx who, in a play by Sophocles, learns that he has married his mother Jocasta.
ANSWER: Oedipus
019-10-21-11128
13. A member of the Crime Syndicate of America goes by this name while disguised as a civilian. A story from the 1970s saw this character become a black woman for a day using a machine. In a 2010 storyline, this figure writes about her husband's decision to walk across the country, while Lex Luthor began being accompanied by a robotic duplicate of this woman. Erica Durance has portrayed this figure since season four of Smallville. For 10 points, name this ace reporter for the Daily Planet, the wife of Clark Kent. ANSWER: Lois Lane
14. At Princeton, this person wrote a senior thesis on socialism and later worked as a White House counsel during the Clinton administration. This first female Dean of Harvard Law School controversially barred military recruiters on campus. Having never married, rumors flew over her potential lesbianism during confirmation hearings. This former Solicitor General was tapped in 2010 to replace the retiring John Paul Stevens. For 10 points, name this most recently appointed female Supreme Court justice.
ANSWER: Elena Kagan

052-10-21-11130
15. He portrayed Hetta's lover Paul Montague in the 2001 BBC adapation of The Way We Live Now. He also played the kindly Union solider Bardolph, who is shot by Natalie Portman's Sarah in Cold Mountain. In 2010, he was Robert Fischer, the energy conglomerate heir targeted for "inception" in the movie of the same name. His most prominent character drives Carmine Falcone's underlings insane before trial and conspires with Ra's al Ghul to distribute a fear toxin. For 10 points, name this portrayer of Dr. Jonathan Crane, The Scarecrow, in Batman Begins and The Dark Knight.
ANSWER: Cilian Murphy

1. One author claimed that this type of work is like "imaginary gardens with real toads in them." One critic noted that this type of work should produce "negative capability." Another author wrote that this type of work "should not mean, but be." Wallace Stevens claimed that this this type of work comprises "the supreme fiction." Marianne Moore claimed "I too despise" works in this genre. For 10 points, name this type of writing practiced by "metaphysical" and "Cavalier" groups.
ANSWER: poetry [accept word form such as poem or poet; prompt on writing or equivalents]
026-10-21-11132
2. One explanation for this event is supported by the Deccan Traps. Evidence from Hell Creek, Montana appears to support both prevalent hypotheses. The most widely-known explanation for this event was first hypothesized after the discovery of an unusually iridium-rich layer in the Earth's crust, and was further supported with the discovery of the Chicxulub ("CHICK-shu-loob") crater off the coast of the Yucatan Peninsula. For 10 points, a sudden increase in volcanic eruptions or impact with an asteroid are the two currently competing theories that explain what event that happened about sixty-five million years ago? ANSWER: extinction of the dinosaurs [or K-T extinction; or equivalents]

003-10-21-11133
3. In eukaryotes, this specific process requires both Rad51 and Dmc1, which are necessary for the formation of Holliday junctions. One step in this process is branch migration. The mule's sterility results from its inability to correctly perform this process, which begins with a small break in the double-stranded DNA at the same point in both chromosomes. For 10 points, name this exchange of base pairs between two similar DNA sequences, a mechanism of genetic variation that occurs at the beginning of meiosis.
ANSWER: homologous recombination [or crossing-over; prompt on meiosis until "break"]
4. While serving under Philip Sheridan, this man's "Wolverines" defeated Jubal Early in the Valley Campaigns. Cavalry under this man stopped J.E.B. Stuart's attack on the Union rear on the third day of the Battle of Gettysburg. After feuding with President Grant, a party led by this officer was caught in an ambush by forces under Crazy Horse and Sitting Bull. For 10 points, name this American cavalry officer who made his "last stand" at the Battle of the Little Big Horn.
ANSWER: George Armstrong Custer
002-10-21-11135
5. One operation during this battle attempted to capture the Baraque Michel crossroads and was known as Operation Stoesser. The Malmedy Massacre occurred during this battle, which also saw the battle for St. Vith and the Siege of Bastogne. Known as "Operation Watch on the Rhine" by the Germans, this battle saw extensive fighting in the Ardennes forest. For 10 points, name this battle of late 1944 and early 1945, the last major German offensive during World War II, named for the shape of a stretch in the Allied lines. ANSWER: Battle of the Bulge [or Ardennes Offensive before mentioned; or Von Rundstedt Offensive]

026-10-21-11136
The three altitudes of a triangle intersect at this point.
ANSWER: the orthocenter

