

1. Interdisciplinary

In *The Origin of Species*, Darwin claimed that some of these animals are born with slave instincts, and in the *Brute Neighbors* section of *Walden*, Thoreau wondered whether a war between these creatures was less significant than a war between people. They were the subject of a 1990 book by Bert Hölldobler and EO Wilson, and M.C. Escher once drew several of them on a Mobius Strip. A 1998 animated film about them featured a neurotic character named Z voiced by Woody Allen. Name these insects classified in the Formicidae family whose types include Argentine, Fire, and Carpenter.

ANSWER: Ant(s) (accept Formicidae, prompt Insect)

2. Current Events

The first President of International Discount Telecommunications Corporation, this man more recently ran a legal practice which supported Iraq War whistleblowers. He organized a website titled Names of the Dead to memorialize Americans who passed away because they did not have health insurance. This politician defeated Ric Keller to become a member of Congress, where colleague Anthony Weiner recently claimed that he was one fry short of a Happy Meal. He recently called Linda Robertson a K Street Whore but then apologized. Name this Democrat from Florida who stated that the Republican Health Care Plan was to either not get sick or to die quickly.

ANSWER: (Alan) Grayson

3. Algebra/Precalculus (60 Seconds)

Find the y-coordinates for the two points at the intersection of the line $x=3$ and the curve given by the set of parametric equations $x=t^2-2t+3$, and $y=t^2+t+1$.

ANSWER: 1 & 7 (either order)

4. British Literature

One of his poems, addressed to an insect that sleeps in an acorn bed, is “The Grasshopper”. Another work asks a woman to shake her head so that her hair can fly unconfined. He also wrote a poem explaining to his love that he is going off to fight, ending, “I could not love thee, Dear, so much, Loved I not Honour more.” His best known work claims that in his soul he is free. Name this 17th Century poet who wrote “To Lucasta, Going to the Wars” and “To Althea, from Prison”.

ANSWER: (Richard) Lovelace

5. World History

The first ruler of this line spent a few years of his childhood as a hostage to the Odas. He came to power soon after one of the commanders of this land’s Western army defected during battle in 1600. In the 1630s, this line banned foreign travel and books. A planned uprising against it failed in 1651 when one of the masterminds talked in his sleep. Near the end of its reign it agreed to the Harris Treaty with the United States five years after a visit from American black ships. It reigned throughout the Edo Period. Name this group of Japanese rulers whose power was given away in 1867 during the Meiji Restoration.

ANSWER: Tokugawa (Shogunate) (prompt answers involving Edo)

6. Chemistry

(Note to moderator: Hydroxyl is pronounced hi-DRO-ksill with a short o. Carbonyl is pronounced kar-BONN-ill.) This group is on both ends of a malic acid molecule. Additionally, it joins with hydrogen ions to make formic acid, with a methyl group to form acetic acid, and with amines to form amino acids. It contains two oxygen atoms, one of which is bound to a hydrogen atom and both of which are bound to a carbon atom. Name this organic group that is a combination of a hydroxyl group and a carbonyl group.
ANSWER: Carboxyl(ic)

7. Music

This composer was the subject of operas by Johann Sachs and Hans Pfitzner. His *Impropria* are still played every year on Good Friday in the Sistine Chapel. He also composed a cycle of twenty-nine motets which led to him being titled The Prince of Music. His best-known mass is in honor of Pope Marcellus the Second, who ruled for three weeks in 1555. Name this composer who sometimes is credited for saving polyphonic music.
ANSWER: Palestrina (or (Giovanni) Pierluigi)

8. Geometry/Trigonometry (60 Seconds)

Find the area enclosed by the following three curves on a polar graph: the first curve is $\theta = \frac{\pi}{4}$ from $r = 0$ to $r = \sqrt{2}$, the second curve is $r = \csc \theta$ from $\theta = \frac{\pi}{4}$ to $\theta = \frac{3\pi}{4}$, and the third curve is $r = 2 \sin \theta$ from $\theta = \frac{3\pi}{4}$ to $\theta = \pi$.
ANSWER: $\frac{\pi}{4} + \frac{1}{2}$ (or $(\pi+2)/4$, order of fractions does not matter)

9. Nonfiction

One of this writer's books, narrated by Pamphilus, concerns a discussion between Cleanthes, Philo, and Demea on the nature of God. To prevent criticism from Church officials, his essays doubting the existence of miracles were at first published outside of his larger works. In his best-known treatise, the third part, which was published after the first two, argued that sympathy is the foundation of morals. His books, including one that sounds like a John Locke work, include *Dialogues Concerning Natural Religion*, *An Enquiry Concerning the Principles of Morals*, *An Enquiry Concerning Human Understanding*, and *A Treatise of Human Nature*. Name this Scottish empiricist.
ANSWER: (David) Hume

10. World Literature

One of this author's novels is about a fifteen-year-old who travels on an expedition with his grandmother, who reports for International Geographic. This writer's most recent book chronicles the death of her daughter Paula. Her first novel is about a woman who does not speak for nine years after her sister Rosa dies. Name this author who wrote about Alexander Cold in *City of the Beasts* and Clara Trueba in *The House of the Spirits*.
ANSWER: (Isabel) Allende

11. Geography/Astronomy/Earth Science

Examples of these bodies are nicknamed Geminga and the Cosmic Cannonball, the latter of which is moving three million miles per hour in the Milky Way. Their existence was first hypothesized in 1933, and there are many known examples of the subset of them labeled as radio loud. These objects are generally about twice as massive as our Sun, and the radio loud ones are known as pulsars. Name these objects that, though they have a thin crust made of regular atoms, are primarily composed of certain nucleons.

ANSWER: Neutron Star (prompt Star before 1933 is mentioned, do not accept Pulsar)

12. Vocabulary

This ten-letter word is a synonym of the ratchet effect, used to describe why it is difficult to reverse increases in unemployment or low export levels. Coming from the Greek word for shortcoming, it is used by thermostats so that they do not turn on and off excessively often. This phenomenon often shows up as a loop on graphs, and it describes the tendency of a magnetic object to maintain its magnetic orientation after the cause of the orientation has been removed. Give this word beginning with the letter H.

ANSWER: Hysteresis

13. Biology

(Note to moderator: Genu is pronounced JEN-oo.) Consisting of a genu and splenium, this object is very similar to the anterior commissure. Some people are born with a Probst Bundle instead of one of these, a condition which often goes unnoticed unless the person has a head MRI. The first person to find any use for this structure was Ronald Myers, who cut it and the optic chiasm in half in cats. The largest bundle of nerve fibers in the body, it sometimes is sliced in patients to control epilepsy. Name this structure that connects the two halves of the brain.

ANSWER: Corpus Callosum

14. US History

As a Yale Professor, this man wrote *The Antitrust Paradox*. One of his biggest critics was former Transportation Secretary William Coleman, and he was criticized sharply in The Biden Report and a speech by Teddy Kennedy. This lawyer was Solicitor General during the 1970s and briefly became Attorney General at the end of the Saturday Night Massacre. Name this scholar who in 1987 was unsuccessfully nominated by Ronald Reagan to become a justice on the Supreme Court.

ANSWER: (Robert) Bork

15. Art/Architecture

(Note to moderator: Mutule is pronounce MYOO-chool. Geison is pronounce GAY-son. Architrave is pronounced AR-kih-TRAYV. Frieze is pronounced like freeze.) In classical architecture, this was made up of three parts, the highest of which often contained mutules on a horizontal geison. The lowest part, sometimes called an epistyle, consists of a lintel and is commonly called an architrave. The middle part of it, often decorated with bas-reliefs, is known as the frieze. Name these building sections below roofs that are on top of columns.

ANSWER: Entablature(s)

16. Pyramidal Math (10 Seconds)

This quantity measures how nested a set is. In linear algebra, this term refers to the number of column vectors that form a basis for the columns of a matrix, which always equals the number of row vectors that form a basis for the rows of the matrix. In statistics, this word is represented by the last letter in the abbreviation MRR, the first two words being Mean Reciprocal. In graph theory, it refers to the number of nodes minus the number of components, and the linear algebra definition can be applied to adjacency matrices. Give this four-letter word that sometimes is used to describe how many dimensions something has.

ANSWER: Rank

17. Religion/Mythology

In order to marry her off to what they thought would be a winged serpent, this figure's parents followed the advice of an oracle and left her on a rocky hill. She was taken to a mansion that was so beautiful that it made her sisters, each of whom had married kings, jealous. Eventually, some ants helped her sort seeds, and an eagle helped her collect black water. This daughter-in-law of Venus was at first not allowed to see her husband, who was actually the God of Love Cupid. Name this Goddess of the Soul whose name now means mind or personality.

ANSWER: Psyche

18. Physics (60 Seconds)

When a hoop rolls down a hill, some of the potential energy is converted into translational kinetic energy and some of it is converted into rotational kinetic energy. Find the translational speed of a rolling hoop that has just rolled down a five meter high ramp assuming that little g equals 9.8 meters per second squared.

ANSWER: 7 Meters Per Second (prompt for units)

19. US Literature

In this book, Aunt Florence only knows one song, and she shocks people by showing up in church one day and singing it. The main character in this novel sees a movie on his 14th birthday while his brother Roy gets into a knife fight. Much of the tension in this novel comes from the preference Gabriel, who is a preacher, shows to his son Roy over his other son. Name this 1953 work about John Grimes, the first novel by James Baldwin.

ANSWER: Go Tell It On The Mountain

20. Western European History

This man formed a splinter group known as the Indulgents when he was considered too moderate to continue leading the Cordeliers. Some historians claimed he headed the 10th of August Insurrection—he became the Minister of Justice the next day. In 1793, he supported giving the Committee of Public Safety dictatorial powers, but in 1794 he stated that it should be more moderate. Name this Montagnard who, just before he was guillotined, correctly predicted that Robespierre would meet a similar fate.

ANSWER: (Georges) Danton

21. Interdisciplinary

When spelled without the letter T, this name is associated with the curve used to calculate the Gini coefficient. It also is the first name of the lyricist who, before Oscar Hammerstein, often teamed up with Richard Rodgers, and it names another curve that looks like a butterfly used to demonstrate chaos. With the letter T in the middle, this names the physicist whose transformations were used to explain the Doppler Effect with respect to light as well as special relativity. Give the last name common to both the Dutchman who shared the Physics Nobel Prize with Zeeman and the Austrian who shared the Physiology Nobel Prize with von Frisch and Tinbergen for studying swan imprinting.
ANSWER: Lorenz (or Lorentz)

22. Current Events

(Note to moderator: Creigh is pronounced Cray.) In his most recent campaign, this politician claimed that he could pay for transportation projects and reopen highway rest stops by privatizing liquor stores. His master's thesis criticized a Supreme Court decision legalizing contraceptives for unmarried couples and stated that government policies should favor married couples over fornicators. After serving in his state's House of Delegates for fourteen years, he was elected his state's Attorney General in 2005. He faced the same electoral opponent this year when he ran for Governor. Name this politician who recently defeated Creigh Deeds to become the Governor of Virginia.
ANSWER: (Robert "Bob") McDonnell

23. Algebra/Precalculus (60 Seconds)

The following two planes intersect at a line. Find the point on that line with its x-coordinate equal to one. The planes are $x+y+z=0$ and $x+2y+3z=0$.
ANSWER: (1,-2,1)

24. British Literature

Near the beginning of this novel, the protagonist believed that Bob was wicked because his mother was fat and she had seen him handle bats and a snake, but Bob later offers to give her a dog as long as it is not his own dog Mumps. This novel's protagonist's mother's maiden name is Dodson, and they have borrowed money from her sister, Jane Glegg. The main family in this book eventually goes bankrupt thanks to a lawsuit by Lawyer Wakem, which confuses the relationship between Philip Wakem and Maggie Tulliver. Name this George Eliot novel whose title refers to Jeremy Tulliver's workplace.
ANSWER: (The) Mill on the Floss

25. World History

(Note to moderator: Sennacherib is pronounced senn-a-KHE-rib. Nineveh is pronounced NIN-uh-vuh.) Some of the records from this civilization are dated from a nearly total eclipse which probably occurred in 763 BCE. This empire was ruled by three different kings named Tiglath-Pileser, the last of whom had a son who based his name on an earlier powerful Akkadian King. That son built a fortress at Dur-Sharrukin and is now called Sargon the Second, and his son Sennacherib moved the capital. Name this civilization which lost Nineveh to the Babylonians in 612 BCE.
ANSWER: Assyria(n)

26. Chemistry

This man became rich when AEG and Westinghouse paid him for the right to make light bulbs he had designed that used cerium oxide and were much more efficient than Edison's. His name is sometimes combined with Planck and Poisson for the mathematical rules governing ionic transport. This scientist also was the first person to announce what became the Third Law of Thermodynamics, for which he won the Nobel Prize. Name this man whose namesake equation uses activity coefficients or reaction quotients to adjust the reduction potential in electrochemical reactions.

ANSWER: (Walther Hermann) Nernst

27. Music

The main theme in this piece's finale is played by a French horn in B Major ending with two Middle C sharps. Bassoons and French horns play the main theme in its Infernal Dance. The plot includes thirteen enchanted princesses, one of whom Prince Ivan falls in love with. The title character helps Ivan against Kashchei, a character taken from Russian folklore. In addition to being a ballet completed in 1910, the composer used similar music but fewer instruments to turn it into several suites. Name this ballet composed by Igor Stravinsky before he wrote *Petrushka* and *The Rite of Spring*.

ANSWER: (The) Firebird (Ballet or Suite) (accept L'Oiseau de feu or Zhar-ptitsa)

28. Geometry/Trigonometry (60 Seconds)

Find the distance between the right angle and the centroid in a 3-4-5 right triangle. The centroid is the intersection of the medians of the triangle.

ANSWER: $5/3$ (or $1\frac{2}{3}$ or 1.6 repeating)

29. Nonfiction

(Note to moderator: Jung is pronounced Yoong.) This man's belief that humans try to convert feelings of inferiority into feelings of superiority inspired Abraham Maslow. He explained how to combine individuality and social interest and discussed the importance of birth order in his book *What Life Could Mean To You*, which covers in simpler language the same topics as *Understanding Human Nature*. Freud once told Jung that this writer was too stupid to follow, and the ideas that led to his split with them are found in *The Neurotic Constitution*. Name this psychologist whose clinical theories are found in *The Practice and Theory of Individual Psychology*.

ANSWER: (Alfred) Adler

30. World Literature

One of this writer's plays is set in Albania and is about a man who converts to Christianity against the wishes of his wife Pauline and her father Felix. Another work is about a supporter of Mark Antony who conspires against Augustus Caesar. His best known work, first performed in 1637, is about an 11th Century Spanish legend. Name this French playwright of *Polyeucte*, *Cinna*, and *Le Cid*.

ANSWER: (Pierre) Corneille

31. Geography/Astronomy/Earth Science

This group of tectosilicate minerals includes anorthite, but unlike anorthite most of these minerals include aluminum, silicon, and oxygen in a one to three to eight ratio. One of its two major forms is labeled with the letter K, the word alkali, or the term orthoclase, and the other form, which contains calcium or sodium instead of potassium, is plagioclase. Name this group that does not cleave well, which is one difference between it and the micas.

ANSWER: Feldspar(s)

32. Vocabulary

The use of this term by late 20th Century academics descended from Heidegger's use of the German word *Abbau*. It was used most famously in a 1967 book to describe an attitude to get at the roots of what other writers were saying, but it often is criticized for being a method that eliminates meanings from books. Beginning with the letter D, it can refer to analyzing a book from different points of view. Give this word used in the 1967 book *Of Grammatology* by Derrida.

ANSWER: Deconstruction(ism)

33. Biology

The first known example of these chemicals has chemical formula $C_{19}H_{22}O_6$ and was discovered by Eiichi Kurosawa and Teijiro Yabuta. Named after the genus of fungi that causes foolish seedling disease in some plants, these chemicals are often added to plants along with auxins because they make plants more responsive to the auxins. These hormones are also used to save plants that require but do not receive exposure to cold weather. Name these hormones whose deficiency leads to dwarf plants.

ANSWER: Gibberellin(s) (or Gibberellic Acid)

34. US History

This politician's reputation was hurt when evidence showing he helped the Little Rock and Fort Smith Railroad was published in the Mulligan Letters. State constitutional amendments named after him prohibit using state funds at religious schools, and he fought for making such a national amendment when he was Speaker of the House in the 1870s. His first term as Secretary of State was short because he chose to resign after the assassination of Garfield, but he later served under Benjamin Harrison. Name this Republican opposed by the Mugwumps who narrowly lost the 1884 Presidential Election to Grover Cleveland, a politician from Maine.

ANSWER: (James Gillespie) Blaine

35. Art/Architecture

One of this artist's earlier works shows Jesus and Mary seated in front of Saint Anne, and another famous fresco shows the crucifixion in front of what appears to be a building with a barrel vault. Many of his works are in the Brancacci Chapel, including *Baptism of the Neophytes*, *Peter's Calling*, and *The Expulsion from the Garden of Eden*. On the left side of another work, Peter is taking money from the mouth of a fish. Name this 15th Century Italian artist of *The Tribute Money*.

ANSWER: Masaccio (or ((Tommaso) Cassai)

36. Pyramidal Math (60 Seconds)

When the absolute value of x is less than one, the value of this fraction can be approximated by the sum from n equals zero to infinity of x to the n power, which begins $1+x+x^2+x^3$, etcetera. The derivative of this function is equal to one divided by the quantity x minus one quantity squared. This fraction is the simplest fraction whose graph has a y -intercept of one and the asymptotes $x=1$ and $y=0$. Give this fraction equal to the cube root of the quantity one over the quantity one minus three x plus three x squared minus x cubed.

ANSWER: $1/(1-x)$ or $-1/(x-1)$

37. Religion/Mythology

In Buddhism, this Sanskrit word is a precursor to samsara, and Buddhists seek to understand that it is based on an illusion. In Sikhism, this word is used to represent somebody's true personality, which can be confused by temptations. Hindus consider this term similar to Brahman, but they do not believe it exists in the physical world. Give this Sanskrit term which can be translated as Breath, Ego, Self, or Soul.

ANSWER: Atman

38. Physics (10 Seconds)

A number representing this value for a given substance can be substituted into Gauss's Law, being multiplied by the permittivity constant and the surface integral of the electric field to find the net charge. These substances are typically placed into electric fields to weaken them or to increase the amount of charge necessary for maintaining the field. The classical explanation for why these substances work is that their nonpolar molecules are converted into electric dipoles opposing an electric field. They are often deposited on ceramic and wrapped between two metal plates, and any insulator can be used as one. Name these materials that get placed inside capacitors.

ANSWER: (Capacitor) Dielectric

39. US Literature

The female lead in this play is described as having hands that are never still and that have an ugly crippled look. The play opens with her being complimented by her husband for gaining twenty pounds. Only five characters appear in the play, and that includes a brief appearance by the maid Cathleen. The married couple's two sons are Jamie, who has a problem with alcohol, and Edmund, who has tuberculosis. Name this work about the Tyrone family by Eugene O'Neill.

ANSWER: Long Day's Journey Into Night

40. Western European History

Some elements of this political organization were organized by Juan Antonio Ansaldo. Founded by Jose Antonio Primo de Rivera, its leadership switched to Manuel Hedilla when Antonio was imprisoned and then executed. Many of its members voted for the Popular Front, but this group was outlawed when the Popular Front came to power. After the Spanish Civil War, this group merged with the Carlists and was controlled by Franco. Name this fascist movement named after a military formation.

ANSWER: Falange (Espanola de las JONS) (or Falangist(as))

41. Interdisciplinary

At the beginning of *The Libation Bearers*, Clytemnestra dreams that she gives birth to one of these animals, and in Willa Cather's *My Antonia*, the title character is surprised by one of them, causing her to scream in Bohemian. There are three different rivers in Minnesota with this name, and another river by this name goes across Idaho before feeding the Columbia. Together with lizards, these animals form the order Squamata, and types include bushmasters, water moccasins, and garters. Name these legless reptiles.

ANSWER: Snake(s)

42. Current Events

This country's future may have been altered this week by a Thomas Shannon statement. Reports this summer that this country's Cesar Ham had been assassinated turned out to be false. Ham is currently up against Elvin Santos of the Liberal Party, Felicito Avila of the Christian Democrat Party, and Porfirio Lobo Sosa of the National Party in this nation's Presidential election. Its Brazilian Embassy currently houses the winner of its last election, who failed to name any members of its so-called coalition government after the legislature failed to act this week. It is currently headed by Roberto Micheletti. The elected President, Manuel Zelaya, was the subject of a Supreme Court detention order and military coup in June. Name this Central American country.

ANSWER: Honduras

43. Algebra/Precalculus (60 Seconds)

Find the area enclosed by the graph of the absolute value of x plus the absolute value of y equals one.

ANSWER: 2

44. British Literature

One of this writer's poems states that a parcel, before it is opened, can contain an island with a large tree, and warns children to leave the string on it alone. His short poem about a young bird-catcher is titled "Love Without Hope", and one of his collections is titled *Fairies and Fusiliers*. In 1929, this poet completed a memoir focusing on his experiences in World War One titled *Good-Bye to All That*. Name this expert on ancient myths who wrote two novels about the Roman Emperor Claudius.

ANSWER: (Robert) Graves

45. World History

This dynasty was almost overthrown by the Rebellion of the Seven States, and it was restored by the Red Eyebrows after it had been out of power for fourteen years halfway through its reign. Though it put down the Five Pecks of Rice and Yellow Turban Rebellions, its leader Tsao Tsao was soon after defeated at the Battle of Red Cliffs, leading to The Three Kingdoms. Name this dynasty which ruled China from 206 BCE to 220 CE.

ANSWER: Han (Dynasty)

46. Chemistry

This molecule consists of three hydroxylated carbon atoms in a bent configuration. It is being experimented with as a bio-gas and fuel additive, is a major byproduct of biodiesel production, and is used as a lubricant and in diet bars as a binder and sweetener. Name this compound that, when nitrated, can be used to treat heart problems and make explosives such as dynamite.

ANSWER: Glycerine (or Glycerol)

47. Music

Several of these constructs occur in Scriabin's Tenth Piano Sonata and in the last movement of Tartini's Violin Sonata in G Minor. A variation on this is a Schneller, also known as an Upper Mordent, which slows down as it goes. Bach often added a turn or an upper or lower prefix to his symbols for these ornamentations, which told the musicians which notes to start on and whether to use two or three notes. Previously known as a shake, name these ornamentations which involve rapid alternations between nearby notes.

ANSWER: Trill(s) (accept Shake before it is mentioned)

48. Geometry/Trigonometry (60 Seconds)

Let x be the measure of each of the base angles in an isosceles triangle and y be the measure of the vertex angle in the same triangle. Find the sine of y if the sine of x is three-fifths.

ANSWER: $24/25$ (or .96)

49. Nonfiction

This political theorist contrasted the active life, or *vita activa*, with the contemplative life. She claimed that humankind had ended occidental history and that governments created during the 20th Century were dependent on terror. She also wrote a 1963 work based on her coverage of the trial of a Nazi war criminal. Name this author of *The Human Condition*, *The Origins of Totalitarianism*, and *Eichmann in Jerusalem*.

ANSWER: (Hannah) Arendt

50. World Literature

One of this writer's works, which begins with a hymn to the muses of Helicon, explains how Zeus overthrew the Titans and how each god and goddess came into being. Another work has a calendar of lucky days and tells the story of Pandora. It gives a brief description of navigation after a long description of farming. Name this Greek poet who followed soon after Homer and wrote *Theogony* and *Works and Days*.

ANSWER: Hesiod

51. Geography/Astronomy/Earth Science

This country's third largest city, Sarh, was once known as Fort Archambault and is on the Chari River. Its second largest city, Moundou, is on the Logone River. This country shares its name with a large lake on its border with Nigeria. The poverty in this country, which has always been a serious problem, has increased recently due to internal corruption and its location next to the Darfur Region of Sudan. Name this former French colony located South of Libya whose capital is N'Djamena.

ANSWER: Chad

52. Vocabulary

This term originally referred to the military dominance of one city-state over another, and it comes from the Greek word for leadership. In the 20th Century, Antonio Gramsci extended its meaning to refer to the ways one social group can dominate the ideas within a society, often used by ruling classes to gain the support of working classes to maintain the status quo. Give this term beginning with the letter H.

ANSWER: Hegemony (accept different word endings)

53. Biology

Levels of this substance are decreased by Exenatide, which is marketed as Byetta and is similar to GLP One. There are two peptides produced by L Cells whose names state that they are similar to this hormone. Though its levels are unchanged by normal meals, they go up for meals high in proteins and low in carbohydrates. Produced by the alpha cells in the Islets of Langerhans, it works primarily on the liver, causing it to release sugar in reaction to lower blood levels. Name this hormone which often acts in opposition to insulin.

ANSWER: Glucagon

54. US History

Because Matthew Lyon violated one of these laws, he was in jail when he was elected to Congress. The prosecution of James Callender under these laws led to the impeachment but not conviction of Samuel Chase. The first of them was titled *An Act to Establish a Uniform Rule of Naturalization*. Passed soon after the XYZ Affair, these laws led to the Kentucky and Virginia Resolutions. Name this series of 1798 laws which made it easier for the government to deport immigrants and made it more difficult to criticize the government.

ANSWER: Alien and Sedition (Acts)

55. Art/Architecture

One of this artist's works includes portraits of James Marshall and Luther Burbank and is titled *Allegory of California*. A room named after him at the Detroit Institute of Arts is surrounded by his work commissioned by the Ford family dedicated to American industrial workers. This man's next work was supposed to be *Man at the Crossroads* and located in New York City, but it was covered and then destroyed because the Rockefellers did not want it to portray Vladimir Lenin. Name this Mexican muralist who married Frida Kahlo.

ANSWER: (Diego) Rivera

56. Pyramidal Math (60 Seconds)

This is the value of the double integral from x equals zero to two and y equals zero to sixty of $x \, d y \, d x$. It also equals the number of ways that the letters in the word GAGGLE can be arranged. It is the total surface area of a cube that has sides of length two root five. Give this number that is the smallest number equal to a prime number cubed times two other distinct primes.

ANSWER: 120

57. Religion/Mythology

One of this figure's offspring was Grani, who belonged to Sigurd. This creature's mother was Loki, who conceived him while distracting his father from repairing the wall that surrounded Asgard. Hermod once borrowed it from Odin in an effort to bring Balder back and was helped by its ability to leap over the gate of Hel. Name this horse with eight legs.

ANSWER: Sleipnir

58. Physics (10 Seconds)

The derivation of this effect involves adding together two terms equal to the angular velocity times a component of the linear velocity. It is a major component of Ekman transport, causing water currents to move in a somewhat circular motion, and in long-range ballistics, forcing engineers to make corrections based on the latitudes they expect equipment to be used at. Name this fictitious force that arises in rotating reference frames, causing objects in the Northern Hemisphere to appear to be deflected rightward and vice versa in the Southern Hemisphere.

ANSWER: Coriolis (Effect or Force)

59. US Literature

This work's fifth section begins with references to a children's song, Shakespeare's Julius Caesar, and the Lord's Prayer. There are also several references to Guy Fawkes and Joseph Conrad, starting with the poem's two epigraphs. Its final two lines are, "This is the way the world ends/Not with a bang but with a whimper." Name this 1925 poem by TS Eliot that, in addition to the claim implied by the title, paradoxically claims that we are stuffed men.

ANSWER: (The) Hollow Men

60. Western European History

(Note to moderator: Comyn is pronounced CAH-min.) This leader's chief lieutenant James Douglas was nicknamed the Black Douglas. This man was excommunicated after an incident inside the Church of Greyfriars when he and his supporters killed Red John Comyn. He later gained papal recognition after his supporters signed the Declaration of Arbroath. This man's most famous military victory came against a much larger force headed by Edward the Second at Bannockburn. Name this man who ruled Scotland from 1306 until 1329.

ANSWER: Robert the Bruce (or Robert I, prompt Robert)

Tiebreakers:

FIRST TIE:

The Beta Cell this man developed in 1913 was the first atomic battery. During the same year, he developed his namesake law, which was soon linked with the Bohr atomic model and used to figure out how many lanthanides there are. In 1915, he was killed at Gallipoli. Name this British scientist whose namesake law relating the frequency of the fundamental x-rays produced by an element with its atomic number was used to locate four gaps in the Periodic Table.

ANSWER: (Henry) Moseley

This man's last battlefield experience allied him with the man who would later be known as Frederick The Great during the War of Polish Succession. His first major command was a major victory over Turks crossing the Tisa River at the Battle of Zenta. He supported the Habsburgs after his request to join the French Army was denied by Louis the Fourteenth, eventually leading troops at Petrovaradin in the Austro-Turkish War. Name this leader who teamed up with the Duke of Marlborough during battles such as Blenheim in the War of Spanish Succession.

ANSWER: (Prince Francois-)Eugene (of Savoy-Carignan)

(60 Seconds)

Give your answer in simple radical form. If the length of each side of a tetrahedron is the square root of three units, what is its height? A tetrahedron is a regular triangular-based pyramid.

ANSWER: $\sqrt{2}$ (Units)

John Walsh published this work with eleven movements in 1733 and then nineteen movements in 1743. No authoritative version of it exists, though this piece is often divided into three suites in the major keys of F, D, and G with a total of twenty-two movements. Its first performance was in 1717 for a dinner trip to Chelsea, and it often is performed together with *Music for the Royal Fireworks*. Name this work by George Friedrich Handel.

ANSWER: Water Music

A conflict in 1937 between this company and its workers became known as the Battle of the Overpass, and they were sued in 1972 when an explosion by one of their products caused Richard Grimshaw to be badly burned. Its recent restructuring was nicknamed The Way Forward. In a surprise announcement a week ago, its CEO Allan Mulally stated that the company had made a billion dollar profit this past quarter after its competitors had declared bankruptcy. It now owns Lincoln, Mercury, and Volvo cars. Name this American company that makes the Crown Victoria, Mondeo, Galaxy, Focus, and Taurus.
ANSWER: Ford (Motor Company)

SECOND TIE:

This man filled the House seat left open by the death of John Quincy Adams. After running for Massachusetts Governor from the Free Soil Party, he became the founding President of Antioch College. In 1837, this thinker argued for the creation of the Massachusetts Board of Education, and he then served on it for over ten years. He would eventually study the Prussian style of education and convince Massachusetts and New York to copy it. Name this founder of the *Common School Journal* who is known as the Father of American Education.

ANSWER: (Horace) Mann

Many people believe that this philosopher wrote a book on the solstice and another on the equinox. He is quoted as believing that anything which causes motion, including magnets, has a soul, and Aristotle also believed that this philosopher stated that all matter could come into being from water. Herodotus claimed that this man predicted an eclipse, and Euclid credited him with several geometrical theorems. Name this philosopher sometimes listed as the first of the Seven Sages of Greece.

ANSWER: Thales (of Miletus)

(60 Seconds)

Solve the equation one plus the fraction one over the quantity $x-1$ equals two over the quantity $x-1$.

ANSWER: 2

This writer won the National Book Award for his novel about politician Joe Chapin. Another novel is about Gloria, who steals a mink coat and hat from the Liggett family after waking up in their apartment. His first novel, which opens in the mind of Luther Leroy Fliegler, is about a heavy drinker who works at a Cadillac dealership in Gibbsville named Julian English. Name this author of *Ten North Frederick*, *Butterfield 8*, and *Appointment in Samarra*.

ANSWER: (John) O'Hara

This man described a basilica he built at Fano, but its exact site is not known. He was interested in city planning, believing that it was important to take winds into account, and in military and civil engineering such as catapults and Archimedes' screws. Though little is known about this architect's life, his masterpiece *De Architectura*, also known as *The Ten Books on Architecture*, is still studied. Name this Ancient Roman who inspired a famous drawing of a man in a circle and a square by Leonardo da Vinci.

ANSWER: (Marcus) Vitruvius (Pollio) (prompt Pollio) (do not accept Vitruvian)

This adjective is used to describe the lady who is supposedly addressed by the last twenty-eight of Shakespeare's sonnets, and it was used by Henry Stanley to describe Africa. It sometimes is used to describe the reactions in the Calvin Cycle, and cosmologists have used it to describe types of matter and energy to explain the rate of expansion of the universe. Its adverb form describes the way we see through a glass, according to First Corinthians. Its noun form is the first word in the title of a novel by Arthur Koestler and the last word in the title of the best known work by Joseph Conrad. Give this four-letter word used to describe the absence of light.

ANSWER: Dark (accept word forms)