

1. One example of this type of work commands the subject to climb "slowly, slowly!" and is featured in J.D. Salinger's *Franny and Zooey*. A set of these works is collected in *The Records of a Travel-Worn Satchel*, while many natural subjects are chronicled in a set of these works published in *The Narrow Road to the Deep North*. The author of those collections took his name after a banana tree, which he wrote about in another one of these works whose first line is, "Squalls shake the Basho." For 10 points, name this poetic form which follows a 5-7-5 syllabic pattern.

ANSWER: haiku

081-11-25-05101

2. Advocates for this law included Alice Lakey and Harvey Wiley, who was its first administrator during his tenure as head of the Department of Chemistry of the USDA. A case based on this law was brought against "forty barrels and twenty kegs of Coca-Cola" and centered on the use of caffeine. This law prohibited "adulterating" or "misbranding" the title products. For 10 points, name this act which, along with the Meat Inspection Act of 1906, was inspired by Upton Sinclair's muckraking novel *The Jungle*, and which regulated pharmaceutical and edible products at the federal level.

ANSWER: Pure **Food and Drug** Act of 1906

082-11-25-05102

3. This man's final work was a five-volume history of the life of George Washington. More famous fiction works published by this man include *Tales of the Alhambra*, as well as story about a man who gets into trouble after announcing his loyalty to King George, not knowing about the occurrence of the American Revolution. Another story by this man tells of the witness of a frightening rider by the schoolteacher Ichabod Crane. For 10 points, name this American author who wrote "Rip Van Winkle" and "The Legend of Sleepy Hollow."

ANSWER: Washington Irving

081-11-25-05103

4. Giovanni Riccioli was the first to note the so-called "Ashen light" glow emanating from this object. Japan attempted to send the craft Akatsuki or "Planet-C" to this object. This object contains the regions Alpha and Beta Regio, and its highest point is Maxwell Montes. Aside from Earth's moon, this is the brightest natural object in the night sky. This planet's atmospheric mass is almost entirely carbon dioxide, even though its size is very similar to Earth's, leading to its nickname of "Earth's twin." For 10 points, name this second planet from the Sun.

ANSWER: Venus

052-11-25-05104

5. Writer Stefan Fatsis spent a training camp with this team learning to play placekicker, as chronicled in *A Few Seconds Of Panic*. The title of that book comes from a quote by this team's former placekicker Jason Elam, and recent Hall of Fame inductees from this team include lineman Gary Zimmerman and tight end Shannon Sharpe. This team recently hired John Fox to replace Josh McDaniels at head coach. For 10 points, name this NFL team which won two Super Bowls under John Elway and plays at Mile High Stadium in Colorado.

ANSWER: **Denver Broncos** [accept either] [accept **A Few Seconds of Panic** before mention]

6. One unique property of this region is its ability to sustain activity when confronted with interference, and damage to this region of the brain impairs patients' ability to successfully perform the Stroop test. This region is closely linked to a structure that generates fear-based responses, the amygdala, which itself is in the limbic system. Damage of this region can lead to difficulty in decision-making, regulating emotions, and social control, as was the case with Phineas Gage. For 10 points, identify this region, whose name reflects its location as the foremost structure in the brain.

ANSWER: prefrontal cortex [prompt on frontal lobe]

081-11-25-05106

7. This author wrote about children who "hop-scotch and jump-rope" next to a "queer old balloon man" who "whistles far and wee" in his poem "In Just." In one poem, this author reveals that "the deepest secret nobody knows" is that "I carry your heart with me." He concludes "how do you like your blueeyed boy Mister Death" in his poem "Buffalo Bill's." He used a place "with up so floating many bells down" as the setting for "anyone lived in a pretty how town." For 10 points, name this American poet known for his unorthodox capitalization.

ANSWER: e.e. **cummings** [or Edward Estlin **Cummings**]

015-11-25-05107

8. One of his operas includes the aria "Una voce poco fa," which is sung by a woman Lindoro is courting. He composed the aria "Largo al Factotum," where the title character of an opera repeats his name. That work by this man is based on a Beaumarchais play about Count Almaviva wooing Rosina with the help of Figaro. He also composed an opera about Gessler ordering a Swiss patriot to shoot an apple off his son's head. For 10 points, name this composer of *William Tell* and *The Barber of Seville*.

ANSWER: Gioachino Antonio Rossini

027-11-25-05108

9. She edited the *Journal of American Folklore* from 1925 until 1940. She compared the Dobu, Kwakiutl, and Zuni Cultures in one work, and she also authored *Zuni Mythology* based on other fieldwork with that tribe. This student of Franz Boas discussed the "guilt" and "shame" cultures in an analysis of the society of Japan she wrote during World War Two. For 10 points, name this anthropologist who wrote *Patterns of Culture* and *The Chrysanthemum and the Sword*.

ANSWER: Ruth Fulton **Benedict** [or Ruth **Fulton**]

027-11-25-05109

10. When expressing this English word, Urdu speakers use the word "pathar," and Russians say "kamen." It is also the meaning of the French name "Pierre" and the Latin word "lapis." One Greek word for this lends its name to an ancient city in Jordan built entirely from this material. Over a hundred English words incorporate the root "lith," from another Greek word for this English term, including the words "paleolithic" and "neolithic," designating the two halves of its namesake "age." For 10 points, what is this English word, that is also the meaning of the German surname "Stein" and can designate the pit of a fruit or a material worked by masons?

ANSWER: stone [or rock; or word forms of either]

11. Izzy Einstein disguised himself as southern colonels and gravediggers to enforce this system. George Remus made his fortune by manipulating loopholes in this policy. In Chicago, this policy was enforced by Eliot Ness and his team of "Untouchables." This policy lost popularity after the death of seven men in Chicago in the St. Valentine's Day massacre. It was implemented by the passage of the Volstead Act and the Eighteenth Amendment. For 10 points, name this poorly-enforced policy that banned alcohol. ANSWER: **Prohibition** [or **Eighteenth Amendment** before mentioned; or **Volstead** Act before mentioned]

080-11-25-05111

12. In one novel by this author, Cornelius van Baerle attempts to win a cash prize by growing the title flower in the wake of the hanging of the DeWitt brothers. This author of *The Black Tulip* created the servants Planchet, Grimaud, and Musqueton, and the jailer John Felton. The protagonist of one of his novels inadvertently schedules three duels for the same day. That character must rescue a pair of diamonds from the Duke of Buckingham to save Queen Anne from the machinations of Cardinal Richelieu. For 10 points, name this French author who wrote *The Three Musketeers*.

ANSWER: Alexandre **Dumas**, pere

015-11-25-05112

13. One of this city's highways is known as the Memorial Shoreway. Suburbs of this city include Euclid and Shaker Heights, and it sits on land once part of Connecticut's Western Reserve. Its architectural landmarks include the Key Tower and a museum featuring a tower and glass pyramid, but it may be better known for being the site of a waterway which was so polluted it caught fire, the Cuyahoga River. For 10 points, name this home of I.M. Pei's Rock and Roll Hall of Fame and derided "mistake on the lake", a city in northeastern Ohio.

ANSWER: Cleveland

082-11-25-05113

14. The TrkA (track a) receptor binds a growth factor for this type of cell. One model for the operation of these cells is the FitzHugh-Nagumo model, which was created in response to the Hodgkin-Huxley model. They are stained by Golgi's method. They can be afferent, efferent, or inter. Regions include the hillock and soma. Voltage gated channels in them allow for the propagation of action potentials. They contain dendrites and axons. For 10 points, name these cells of the nervous system.

ANSWER: neurons

001-11-25-05114

15. One work of literary criticism by this author grew out of a series of William E. Massey, Sr. lectures given at Harvard in 1990. That work focused on such novels as Mark Twain's *Huck Finn* to explore the "Africanist presence" in early American literature. This author of *Playing in the Dark* also wrote a novel in which the main character lives on Bluestone Road and is haunted by the ghost of the daughter she murdered. For 10 points, name this American creator of Denver and Sethe who wrote the novel *Beloved*. ANSWER: Toni **Morrison** [or Chloe Anthony **Wofford**]



1A. What is the term for the location at which fault rupture starts in an earthquake, which is also known as a hypocenter?

ANSWER: focus

1B. What African-American author wrote about growing up in Stamps, Arkansas in her autobiographical *I Know Why the Caged Bird Sings*?

ANSWER: Maya Angelou

2A. What third largest island in the world is divided between Brunei, Indonesia, and Malaysia?

ANSWER: Borneo [or Kalimantan]

2B. Extremophiles are a subset of what group of single-celled prokaryotic organisms that are hypothesized as a third domain along with bacteria and eukaryotes by Carl Woese?

ANSWER: archaea

3A. This is a 10-second calculation question. Completely factor the polynomial $x^2 + 6x - 16$?

ANSWER: (x + 8)(x - 2)

3B. This is a 10-second calculation question. What is the probability of choosing a red face card from a standard deck of playing cards? Give your answer as a reduced fraction.

ANSWER: 3/26

4A. What often incoherent politician won a surprise victory in a Democratic Primary before being defeated by Jim DeMint for a South Carolina senate seat?

ANSWER: Alvin Greene

4B. What German philosopher wrote *The Phenomenology of the Mind* and developed the concept of the thesis, antithesis, and synthesis, his namesake dialectic?

ANSWER: Georg Friedrich **Hegel**

5A. This is a 20-second calculation question. In simplest terms, what is the volume of a cube with sides of length 8 that has had a rectangular prism hole of height 8 and length and width 2 removed from it?

ANSWER: 480

5B. This is a 20-second calculation question. What is the altitude of the equilateral triangle with sides of length 2×2 ?

ANSWER: $\underline{\mathbf{x}}$ square $\underline{\mathbf{root}}$ of $\underline{\mathbf{3}}$ [or square $\underline{\mathbf{root}}$ of $\underline{\mathbf{3}}$ $\underline{\mathbf{x}}^2$]

6A. What French physicist names an inverse square law that governs how electrically charged particles interact?

ANSWER: Charles-Augustin de **Coulomb**

6B. What NBC sitcom stars Joel McHale and follows a study group at Greendale Community College?

ANSWER: Community

7A. This is a 30-second calculation question. In simplest terms, what is the population standard deviation of the set {8, 25, 36}?

ANSWER: square **root** of **398/3**

7B. This is a 30-second calculation question. Completely factor x^4 - 1 into linear factors. Two of your factors will be complex.

ANSWER: $(\mathbf{x} - \mathbf{i})(\mathbf{x} + \mathbf{i})(\mathbf{x} - \mathbf{1})(\mathbf{x} + \mathbf{1})$ (in any order)

8A. Figures of Ruyi recur in the designs of which building, meant to evoke the images of bamboo and pagodas through its stacking layers, that was the world's tallest building until the opening of the Burj Khalifa in 2010?

ANSWER: Taipei 101

8B. What Austrian physicist names a distribution of particle speeds with James Clerk Maxwell?

ANSWER: Ludwig Boltzmann

9A. What Russian ruler put down Pugachev's rebellion and was in power during all three of the partitions of Poland?

ANSWER: <u>Catherine the Great</u> [or <u>Catherine II</u> of Russia; or <u>Yekaterina Alekseyevna</u>; or <u>Yekaterina Velikaya</u>; prompt on <u>Catherine</u>]

9B. What data structure uses keys to organize data around root and leaf nodes?

ANSWER: trees

10A. What Cambodian empire had kings named Jayavarman and Suryavarman and built the temple complex at Angkor Wat?

ANSWER: Khmer Empire

10B. Name the friend of Leopold Bloom who is also the title character in James Joyce's *A Portrait Of The Artist As A Young Man*.

ANSWER: Stephen **Dedalus**



1. Gustav Holst set music to one of this author's poems in which "snow had fallen, snow on snow, snow on snow, in the bleak midwinter." She wrote about a girl who unsuccessfully plants a "kernel-stone" after obeying cries of "Come buy, come buy." That poem by this author concerns a girl named Laura who saves her sister Lizzie by resisting the fruit of the title characters. For 10 points, name this poet of "Goblin Market" who was in the Pre-Raphaelite Brotherhood with her brother Dante Gabriel.

ANSWER: Christina Rossetti [prompt on Rossetti]

015-11-25-05117

2. In December 2010, Roger Wicker introduced legislation to "restore" this law. An argument based on this law was overruled by the Supreme Court in *U.S. v. Darby Lumber Co.*, though the Court had attributed more power to it in *Hammer v. Dagenhart*. In *United States v. Sprague*, the Supreme Court ruled that this law "added nothing" to the Constitution. The powers this amendment refers to are often interpreted to include the Commerce Clause. The basis for many "state sovereignty resolutions" is, for 10 points, what Constitutional amendment that was the last in the Bill of Rights?

ANSWER: Tenth Amendment to the United States Constitution

081-11-25-05118

3. One important concept in this field is "diglossia," in which "Low" and "High" varieties exist simultaneously. Roman Jakobson and Nikolai Trubetzkoy belonged to the Prague School, which made important advances in this field. Ferdinand de Saussure wrote a general course in this field, whose important laws include Grimm's law. This field studies phonemes, units of sound, and morphemes, units of meaning. For 10 points, name this social science, which studies the nature of languages.

ANSWER: linguistics

080-11-25-05119

4. One document named for this city concluded the Albigensian Crusade. Another signed thirty years later relinquished Henry III's claim to Normandy and Anjou. One treaty named after this city ended the Crimean War. Under the conditions of another treaty with this name, Spain ceded Guam to the United States. A treaty with this name acknowledged the independence of the Thirteen Colonies. For 10 points, name this city that gave its name to treaties that ended both the Spanish-American and the Revolutionary Wars.

ANSWER: **Paris**

081-11-25-05120

5. During one battle, Hur helped to hold this man's hands in the air so that his people would prevail. This man went to the top of Mount Nebo to die after singing a song. This man and his older brother were punished for showing impatience when he was instructed to speak to a rock, but struck the rock instead to produce water. This husband of Zipporah spoke with the burning bush, brought the Ten Commandments down from Mount Sinai, and led the Israelites out of Egypt. For 10 points, name prophet who parted the Red Sea.

ANSWER: Moses [or Moshe]

6. This man was Director of Corporate Affaris at Carlton Communications during that company's failed attempt at a merger with United Business Media, and in February 2011, this man was the second person to field questions via YouTube's "World View" program. A financial agreement brokered by this man is called Project Merlin. This man received his most notable position after negotiation with Nick Clegg, and after succeeding a man who resigned in May 2010 amidst the problems of the financial crisis. For 10 points, name this current Prime Minister of the United Kingdom.

ANSWER: David Cameron

081-11-25-05122

7. This man wrote a series of poems with three stanzas of six lines, each which was followed up by *His Toy, His Dream, His Rest*. That work of this man featured an unnamed character in blackface and the alter-egos "Henry" and "Mr. Bones" and inspired many other Confessional poets. He also wrote a long monologue in which he imagined himself the lover of an early American poet who wrote "To My Dear And Loving Husband." For 10 points, name this poet of "Homage to Mistress Bradstreet" and the *77 Dream Songs*.

ANSWER: John Berryman

082-11-25-05123

8. This property is possessed by the constant described in Mills' theorem, and a one way of determining this property is by the Lucas-Lehmer test. A statement about the asymptotic incidence of this property is this property's namesake theorem, and the fact that every number can be written as the sum of two numbers with this property is given as Goldbach's conjecture. Famously subject of a proof by Euclid showing that there are infinitely many numbers with this property, numbers that do not have this property are called composite. For 10 points, name this property of a number that means it is divisible only by one and itself.

ANSWER: **primality** [or **prime**]

081-11-25-05124

9. This work is based on a series of lectures given to Newnham and Girton Colleges. The first section of this work features a narrator who loses a "little fish" of an idea after being told to stay off the Oxbridge grass, and later on, this work discusses *Life's Adventure* by Mary Carmichael. Another section of this work describes the predicament of a hypothetical "Judith Shakespeare". For 10 points, name this essay which advocates for financial freedom and better education as means toward promoting more writing by women, by Virginia Woolf.

ANSWER: A Room of One's Own

082-11-25-05125

10. The wandering of this deity leading to the creation of classes of mankind is detailed in the Rigsthula. Another name for this figure, Gullintanni, comes from this deity's golden teeth. This god was said to have senses so acute he could hear the sound of grass growing. This god fulfills his primary duty in defending Asgard by blowing his Gjallarhorn. For 10 points, name this Norse deity that kills and is killed by Loki at Ragnarok, and keeps watch over the rainbow bridge Bifrost (BUY-frost) as he waits for that day to come.

ANSWER: **Heimdall** [or **Gullintanni** before mentioned]

11. Biorefineries use a "reactive" form of this technique to convert organic acids to acid esters with high yields. Another modification of this technique uses a namesake type of column that is packed with plates or beads that increase surface area. Azeotropes cannot be separated by a "simple" type of this process and must be separated by the aforementioned "fractional" type instead. For 10 points, name this technique of separating liquids based on their boiling points.

ANSWER: distillation

003-11-25-05127

12. The gyromagnetic ratio of an electron is equal to the magnetic moment divided by this quantity. Its operator is equal to negative i h bar times r cross the gradient. The quantum number j corresponds to the total value of this. Its conservation is a consequence of the isotropy of space. Its derivative with respect to time is torque and Kepler's second law follows from it being conserved. It is equal to the product of moment of inertia and angular velocity. For 10 points, name this rotational version of momentum.

ANSWER: angular momentum

001-11-25-05128

13. This man outlined the remaining orchestration of one of his ballets before leaving for Russia to André Caplet, a friend who often helped finish his works. This composer of *The Toy Box* wrote a suite for his daughter Chou-Chou with sections named "Doctor Gradus and Parnassum" and "Golliwog's Cakewalk." This composer adapted a Stéphane Mallarmé work into a successful symphonic poem. One of his pieces is part of his larger *Suite Bergamasque*. For 10 points, name this French composer of *Children's Corner*, *Prelude to the Afternoon of a Faun*, and "Clair de lune."

ANSWER: Achille Claude **Debussy**

023-11-25-05129

14. This battle began with bloody and unsuccessful attempts on the Graveyard Road and the well-fortified Stockade Redan. It was followed by the fall of the nearby Port Hudson, and prompted by retreating action from Raymond and Champion Hill. Pemberton's Independence Day surrender at this battle caused Lincoln to comment that "the Father of Waters again goes unvexed to the sea," as it yielded control of the Mississippi River to the Union. For 10 points, name this siege by Ulysses S. Grant of a Mississippi city. ANSWER: Siege of **Vicksburg** [or Battle of **Vicksburg**]

015-11-25-05130

15. One equation that solves for this value sums the ionic radii in its denominator under their charges and is named for Anatoli Kapustinskii. That equation does not make use of the Madelung constant, which shows up in other equations for solving this value named for Born-Mayer and Born-Lande. This value cannot be measured directly, but it can be estimated by using the Born-Haber cycle. The energy of crystallization is sometimes used as the opposite of this term. For 10 points, name the type of energy released when gaseous ions are condensed into a solid.

ANSWER: lattice energy



1. A painting of a foggy bridge with fireworks in the background by this artist was depicted artificially high and is styled after a Hokusai painting. Another painting in the same series by this artist depicts fireworks at Cremorne Gardens. That series of *Nocturnes* was derided by critic John Ruskin as this artist "flinging a pot of paint in the public's face." A woman stands on an animal skin carpet in a work painted by this advocate of "art for art's sake." For 10 points, name this artist of musically titled works such as his *Symphony in White No. 1* and an *Arrangement in Grey and Black*, a portrait of his mother.

ANSWER: James Abbott MacNeil Whistler

002-11-25-05132

2. Two answers required. In one conflict between these two civilizations, one leader interpreted a call for "wooden walls" as a call for a large navy. Another conflict between them was ended by the Peace of Callias after one side's stunning naval and land victory at Eurymedon. The Ionian revolt sparked one conflict between these nations, and battles between them were fought at Mycale and Plataea. For 10 points, name these two civilizations which were headed by leaders like Miltiades, Leonidas, and Xerxes when they squared off at Marathon and Thermopylae.

ANSWER: **Greece** and **Persia** [accept **Athens** for Greece before "Callias" is mentioned]

015-11-25-05133

3. This phenomenon was first noticed by Heinrich Hertz, who used a coil with a spark gap, though an early "voltaic" version of this phenomenon had been noted by Becquerel in 1839. Philipp Lenard noted this phenomenon's apparent contradiction of a theory proposed by Maxwell. The resolution of that problem posed by this effect saw the proposition of photons as quanta of light, which better explained the ejection of electrons noticed in this effect. For 10 points, name this physical effect that sees electrons emitted from matter that is struck by electromagnetic radiation, the explanation of which won Albert Einstein the 1921 Nobel Prize in physics.

ANSWER: **photoelectric** effect

081-11-25-05134

4. This character suggests that winged demons make nests in preacher's cowls and explains to a traveling companion the reasons for the markings on the Moon. This character, the dedicatee of *La Vita Nuova*, only met the narrator of that work twice in her lifetime. She appears in a "chariot triumphal" to greet him and takes him past circles of light up to the Empyrean. For 10 points, identify this character who replaces Virgil as Dante's guide in *Purgatorio* and *Paradiso*, the object of his affection.

ANSWER: **Beatrice Portinari** [accept either name]

020-11-25-05135

5. In the *Glee* episode "Special Education," Rachel refuses to sing this song's solo, leading to Mercedes and Tina splitting it. In the first music video for this song, the artist is woken up in a forest by a girl in a white dress and led to a group of people dressed as clowns. The newer music video for this song features two go-go dancers in the background with blue skin and gold dresses. This song begins, "Happiness hit her like a train on a track." For 10 points, name this song re-released in 2010 after it was featured in the *Eat Pray Love* trailer by Florence and the Machine.

ANSWER: "Dog Days Are Over"

This is a calculation question. In simplest terms, at what one point do the following lines and curves meet:

y = 3 x - 3; y = 2 x + 4 and $y = x^2 - 3 x - 10$?

ANSWER: (7, 18)

023-11-25-05137

What composer wrote the music for the operas Gianni Schicchi and Tosca?

ANSWER: Giacomo Puccini