

1. The first part of Edgar Allan Poe's "The Imp of the Perverse" takes the form of this style of work. George Orwell's *Decline of the English Murder* is also written in this style. The pioneer of this style wrote pieces of the education of children and of cannibalism while John Locke wrote a work in this style concerning human understanding. For 10 points, name this typically short form of writing, pioneered by Michel Montaigne, which attempts to persuade the reader of the author's viewpoint.

ANSWER: essay

064-10-21-01101

2. This state contains the northern part of Lake Powell and the northwestern part of this state is home to the Bonneville Salt Flats. This state, originally proposed as part of a larger state called Deseret, has its population centered in north central cities like Orem and Provo. The capital of this state is home to a massive temple for the Church of Latter Day Saints. For 10 points, name this western U.S. state with capital at Salt Lake City.

ANSWER: Utah

064-10-21-01102

3. A character in this novel named Syme is killed for being too intelligent. In this work, Mr. Charrington poses as the owner of an antique shop, and a man reads *The Theory and Practice of Oligarchical Collectivism*. At the end of this work, the protagonist is betrayed by O'Brien and tortured with rats in Room 101, where he learns to accept that two plus two equals five. For 10 points, name this novel containing such characters as Winston Smith and the all seeing Big Brother, a dystopian work by George Orwell.

ANSWER: Nineteen Eighty-Four

064-10-21-01103

4. The "Pigouvian" type of these things are used to correct negative externalities. Their rate is plotted on the x axis of the Laffer curve. The rate of progressive ones rise with increasing value of the target. Some politicians and economists propose reforming these in the U.S. by levying a flat one. The 16th amendment allows the federal government to impose an income one. For 10 points, name these economically entities used by governments to raise money.

ANSWER: taxation

001-10-21-01104

5. This man wrote a novel in which Verkhovensky schemes to kill Ivan Shatov. In another of his novels, a Chinese vase is broken at a party and Rogozhin murders Nastassya. This author of *The Possessed* wrote a novel whose protagonist dreams of a horse and landlady being beaten, loves Sonya Marmeladov, and kills Alyona Ivanovna, his pawnbroker. For 10 points, name this Russian author who created Prince Myshkin in *The Idiot* and Raskolnikov in *Crime and Punishment*.

ANSWER: Fyodor Mikhailovich Dostoyevsky

079-10-21-01105

6. The Maghribian wadis run out of these mountains, as do the Moulouya and Chelif rivers. Mount Siroua links this chain's High and Anti ranges. The Taza Pass breaks this chain between the Rif and the Middle range of this system. The World War II Battle of the Kasserine Pass took place in this mountain system. The highest point in this range is Mount Toubkal. For 10 points, name this North African mountain system.

ANSWER: Atlas Mountains

030-10-21-01106

7. Charlie Wales goes to Paris to regain custody over his daughter in this author's short story "Babylon Revisited." Dick and Nicole Diver are the subject of his work *Tender Is the Night*, inspired by his own wife Zelda checking into a mental institution. Daisy Buchanan runs over Myrtle Wilson in another work by this man which ends with the protagonist Nick Carraway returning back to his hometown. For 10 points, name this American author of *The Great Gatsby*.

ANSWER: Francis Scott Key **Fitzgerald** [accept "**Babylon Revisited**" before it is read]

064-10-21-01107

8. In plant cells, an event preceding this stage of mitosis sees the formation of a phragmosome. Cyclin B1-Cdk1 localizes to the nucleus during it. During this event microtubules form the spindle. In this stage, the nucleolus disappears, and the nuclear envelope dissolves at the end of this stage. In this stage of mitosis, chromatin condenses to form chromosomes. For 10 points, name this first phase of mitosis, which precedes metaphase.

ANSWER: **prophase**

024-10-21-01108

9. One character in this play receives a large income from the American businessman Ezra Wannafeller for delivering lectures on morality. At the end of this play, the protagonist marries Freddy Eynsford Hill. Another character in this play is a professor of phonetics who wagers his colleague, Colonel Pickering, that he can make a lower-class flower girl named Eliza Doolittle pass as a duchess. For 10 points, name this play by George Bernard Shaw.

ANSWER: **Pygmalion**

080-10-21-01109

10. Edmund Phelps was a proponent of the natural rate theory of this phenomenon. Some temporary examples during searching are called frictional, while societal and economic mismatches lead to the structural form. This is compared to inflation on the Phillips curve. Discouraged people are not included in the official statistics relating to this. Those statistics are compiled from sources such as the payroll survey. For 10 points, name this economic occurrence where people do not have jobs.

ANSWER: **unemployment**

001-10-21-01110

11. James Wilkinson was accused of organizing one conspiracy led by this man. This was the first to convert Tammany Hall into a political organization. During his later life, this man was put on trial for leading a plot to form his own monarchy in what is now the western United States. He is better remembered for killing a man in an encounter in Weehawken, New Jersey. For 10 points, name this first Vice President under Thomas Jefferson who killed Alexander Hamilton in a duel.

ANSWER: Aaron **Burr**

064-10-21-01111

12. This compound is primarily used in modern pickling processes for steel. One method for producing PVC plastic works by reacting acetylene with this compound. This compound is secreted by parietal cells and G cells and was once known as muriatic acid. Aqua regia consists of a mixture of nitric acid and this acid which is the active component in gastric acid secreted in the stomach. For 10 points, name this strong monoprotic acid with formula HCl.

ANSWER: **hydrochloric acid** [accept **HCl** before it is read; prompt on **muriatic** acid before it is read]

064-10-21-01112

13. One account of this event claims it was sparked when a deaf man refused to give up his weapon. This event was carried out by cavalry forces led by James Forsyth and overseen by General Nelson Miles. Occurring during the Ghost Dance movement, this event had victims including Spotted Elk. In 1973, members of AIM led a standoff at the site of this event which led to the deaths of over 100 Lakota Sioux. Dee Brown wrote a 1970 novel titled "Bury my heart" at the site of this event. For 10 points, name this 1890 massacre of Native Americans.

ANSWER: **Wounded Knee** Massacre

064-10-21-01113

14. Two characters in this work, Quimbo and Sambo, repent after viciously beating the protagonist. Earlier in this novel, Augustine St. Clare's daughter Eva is saved from drowning by the title character. Tom Loker is reformed after spending time at a Quaker settlement in this work, which popularized the phrase "sold down the river." This work, subtitled "Life Among the Lowly," includes the vicious plantation owner Simon Legree. For 10 points, name this anti-slavery novel written by Harriet Beecher Stowe.

ANSWER: **Uncle Tom's Cabin**

064-10-21-01114

15. An empire centered on this island was defeated during the Expedition of a Thousand. A 13th century uprising occurring on this island was known as its Vespers. The First Punic War ended with Roman control of this island. During the Peloponnesian War, an expedition led by Alcibiades sought to capture this island's city of Syracuse. During World War II, General Patton captured this island's cities of Palermo and Messina. For 10 points, name this large island that is part of Italy.

ANSWER: **Sicily**

064-10-21-01115

1A. Name the theory that shows measurements are dependent on the motion of the observer and the observed, which has special and general types developed by Einstein.

ANSWER: theories of **relativity** [or special and general **relativity**]

1B. What family of computer programming languages, which includes Scheme, was derived from Alonzo Church's lambda calculus and is best known for its use in artificial intelligence?

ANSWER: **LISP**

2A. What show on Comedy Central includes such characters as the zombie Randall and the human Mark Lilly, who attempts to integrate monsters into society?

ANSWER: ***Ugly Americans***

2B. What cosmic bodies have a Schwartzchild Radius and are so dense that not even light can escape them?

ANSWER: **Black Holes**

3A. This is a 30-second computation question. Expand quantity square root of two times x squared plus y times the square root of three end quantity to the third power. Use simplest radical form in your answer.

ANSWER: **two square roots of two times x⁶ plus six square roots of three times x⁴ times y plus nine square roots of two times x² times y² plus three square roots of three times y³**

3B. This is a 30-second computation question. Fully factor $10x^3 + 30x^2 + 2yx^3 + 6yx^2$.

ANSWER: **$2x^2(x + 3)(y + 5)$**

4A. What Caribbean nation was the focus of a "missile crisis" between America and the USSR in 1962, in the early years of Communist rule under Fidel Castro?

ANSWER: Republic of **Cuba** [or Republica de **Cuba**]

4B. What alternative rock band is known for such songs as "Ignorance" and "Misery Business" and is fronted by lead singer Haley Williams?

ANSWER: **Paramore**

5A. This is a 10-second computation question. What is the area of a square whose diagonal is seven square roots of two?

ANSWER: **49**

5B. This is a 10-second computation question. What is the average of 10, 30, 25, and 67?

ANSWER: **33**

6A. What onetime host of a radio talk show called *We the People* and former mayor of Oakland recently defeated former eBay president Meg Whitman to become governor-elect of California?

ANSWER: Jerry **Brown**

6B. What subset of the real numbers includes zero, positive whole numbers, and their respective negatives?

ANSWER: **integers**

7A. This is a 20-second computation question. How many ways can one write seven as the sum of positive integers? Note that order doesn't matter so 1+6 and 6+1 counts only once and 7 by itself counts.

ANSWER: **15**

7B. This a 20-second computation question. What is $\cos(1/2 \pi) - \sin(1/3 \pi) + 1$?

ANSWER: **1 - square root of 3 over 2**

8A. What American writer worked for the *Baltimore Sun*, covered the Scopes Monkey Trial, coined the term "Booboisie," and wrote *The American Language*?

ANSWER: Henry Louis **Mencken**

8B. What is the name of the temperature at which a thermodynamic system achieves its lowest energy level and is defined to be at zero degrees on the Kelvin scale?

ANSWER: **absolute zero**

9A. What royal monarch was executed in the Tower of London after serving only nine days as Queen of England after the death of Edward VI?

ANSWER: Lady **Jane Grey** [or Lady **Jane Dudley**]

9B. What mode of transportation can be seen emerging from a fireplace in René Magritte's surrealist painting *Time Transfixed*?

ANSWER: **train** [or **locomotive**; or any reasonable equivalents]

10A. Which symphony in D major by Gustav Mahler includes a funeral march based on the children's song "Frère Jacques"?

ANSWER: **Titan** Symphony [or Symphony No. **1** in D Major]

10B. Pete Maravich and Shaquille O'Neal played basketball at what university whose head football coach is Les Miles?

ANSWER: **Louisiana State University** [or **LSU**]

1. One type of these organisms uses reverse transcriptase in its replication process. One theory of their origin is the cellular origin hypothesis, which states that they evolved from DNA from plasmids or transposons. They are coated by a protein shell called a capsid. The tobacco mosaic one was the first of these to be discovered, and other types of them include Epstein-Barr and Ebola. For 10 points, name these infectious agents, some of which cause influenza.

ANSWER: viruses

024-10-21-01117

2. This novel's second volume was written in response to a spurious sequel written by Avellaneda (ah-vay-yah-NAY-dah). The central character, who idolizes Amadis of Gaul, rides a horse named Rocinante (row-sin-AHN-tay) and renames a farm girl Dulcinea. The protagonist of this work is accompanied by Sancho Panza, who tries to convince his master that a group of supposed giants are in fact windmills. For 10 points, name this novel about a foolishly chivalric knight written by Miguel Cervantes.

ANSWER: *The Ingenious Hidalgo Don Quixote of La Mancha* [or *El Ingenioso Hidalgo Don Quixote de la Mancha*]

064-10-21-01118

3. To denote quantities, this language uses a measure word, such as “ge” [GUH], between the number and the object. This language differentiates between homophones through four different tones, indicated in one writing system by markings above the vowel. Romanization systems for this language include Wade-Giles and Pinyin. This language’s word for “person” is “ren,” and this language’s speakers call it *Zhongwen* [JONG-wen]. For 10 points, name this language, which, like Cantonese, is spoken widely in China.

ANSWER: Mandarin [accept Chinese before “China” is read]

080-10-21-01119

4. One character in this novel wishes to buy a fourth wall-sized television. The protagonist is told that he represents a copy of the Book of Ecclesiastes by the intellectual Granger. That protagonist destroys his own house and kills his boss Captain Beatty. Comprised of such sections as “The Sieve and the Sand” and “Burning Bright,” this novel takes place in a dystopia where firemen, such as the protagonist Guy Montag, set books on fire. For 10 points, name this novel by Ray Bradbury.

ANSWER: *Fahrenheit 451*

083-10-21-01120

5. One part of this organ is known as the bare area, since it is not covered by the peritoneum. This organ is the main site of red blood cell production before the bone marrow takes over, and gluconeogenesis takes place primarily in this organ. It is the site of the degradation of insulin, and it stores glycogen. It produces a substance which is stored in the gallbladder, bile. For 10 points, name this organ which can be afflicted by cirrhosis and hepatitis.

ANSWER: liver

024-10-21-01121

6. James Tague was a bystander who was injured in this event, which may have involved a group known as the “three tramps.” Recorded on film by Abraham Zapruder, it was investigated by a committee that included such politicians as Gerald Ford and the committee’s namesake, Chief Justice Earl Warren; that committee concluded that this event was perpetrated by one person, who was subsequently killed by Jack Ruby. For 10 points, name this event that took place on November 22, 1963, in Dallas, Texas and was most likely caused by Lee Harvey Oswald.

ANSWER: **assassination of JFK** [or **assassination of John F. Kennedy**; prompt on **assassination of Kennedy**]

083-10-21-01122

7. Bragg’s law is most commonly written as $2d \sin \theta = n\lambda$. This Greek letter is also typically used to denote a scalar eigenvalue and Lagrange multipliers. A bacteriophage that infects *E. Coli* is denoted using this Greek letter. One term denoted by this letter can be divided by the speed of light to give the frequency of a light wave. For ten points, name this eleventh letter of the Greek alphabet, commonly used to denote wavelength.

ANSWER: **lambda**

064-10-21-01123

8. This artist of the *Madonna of Bruges* [BROOZH] sculpted a monkey grabbing the leg of a man in straps along with a horned *Moses* for the tomb of Pope Julius II. This sculptor of *The Dying Slave* showed himself holding his flayed skin in his fresco *The Last Judgment*. Another of his works shows a nude man holding a slingshot in preparation for battle with Goliath. For 10 points, name this Italian artist of the Sistine Chapel ceiling, who sculpted a noted *Pietà* and marble *David*.

ANSWER: **Michelangelo** di Lodovico di **Buonarroti** Simoni [accept either underlined name]

079-10-21-01124

9. Recrystallization is based off of differences in this property at high and low temperatures. The common ion effect describes a lowering for this property while Henry’s law quantifies this property for a gas. All nitrate salts possess this property for water while this property is possessed when both substances have similar polarities. Exceeding the limit of this property produces a supersaturated solution. For 10 points, name this property defined as the ability of one substance to dissolve in another.

ANSWER: **solubility** [or **soluble** or other word forms]

064-10-21-01125

10. This poem’s second stanza describes a shape with a lion’s body and a man’s head and ends by asking what rough beast “Slouches towards Bethlehem to be born.” The source for the title of Chinua Achebe’s (ah-CHAY-bay) novel *Things Fall Apart*, this poem also notes that “The falcon cannot hear the falconer” and it begins with the line “Turning and turning in the widening gyre.” For 10 points, name this poem by William Butler Yeats whose title references Christ’s return to Earth.

ANSWER: “The **Second Coming**”

083-10-21-01126

11. The Lyman series is found in this spectrum of light, which is the site of most Cherenkov radiation. Errors occur when using the Rayleigh-Jeans law to find the energy emitted by a black body during this spectrum’s namesake catastrophe. Its wavelength is between ten and 400 nanometers, so it is longer than X-rays but shorter than visible light. It is also emitted by black lights. For 10 points, name this type of radiation that is absorbed by ozone layer when it comes from the sun.

ANSWER: **ultraviolet** light [or **UV** light; accept “radiation” or “spectrum” for “light”]

079-10-21-01127

12. This man's wife laughs when told she will bear a son and is buried in the Cave of the Patriarchs. This son of Terah forces his servant to wander in the desert until she is saved by the appearance of a magical well. This man lies with Hagar in response to his wife's barrenness. He is told his descendants will be as numerous as the sand and the stars. This man is stopped from sacrificing his son Isaac by the last minute appearance of a sheep. For 10 points, name this patriarch important to Christianity, Judaism, and Islam.

ANSWER: **Abraham**

015-10-21-01128

13. The Tower Commission was created in the aftermath of this event which saw the resignation of Caspar Weinberger. In the aftermath of this event, John Poindexter and Oliver North were both convicted on multiple felonies. This event centered on the sales of weapons to secure the release of hostages and then use the money to fund rebels fighting in Nicaragua. For 10 points, name this political scandal during Reagan's second term that involved the selling of weapons to a Middle Eastern nation.

ANSWER: **Iran-Contra** Affair

064-10-21-01129

14. One character in this opera tells her life story in an aria beginning "Mi chiamano," followed by her name. In this opera, the elderly Alcindoro becomes the escort of Musetta, who attempts to make her lover Marcello jealous. This opera, which also contains the aria "Che gelida manina," ends in a garret where Rodolfo cares for a bedridden Mimì, who is dying of tuberculosis. The basis for the musical *Rent*, this is, for 10 points, what opera about poor Parisians living in the Latin Quarter, written by Giacomo Puccini?

ANSWER: *La **Boheme*** [or ***Bohemian Life***]

080-10-21-01130

15. This Greek goddess turned Gerana into a crane and gave Echo her unusual and distinctive punishment. This goddess was ultimately responsible for assigning the twelve labors to Heracles and banished Leto to the island of Delos where she gave birth to Artemis and Apollo. The peacock was sacred to this goddess, the mother of Hebe, Eris, and Ares, who uncovered her husband's affair with Io. For 10 points, name this Greek goddess of marriage and birth who was the husband of Zeus.

ANSWER: **Hera**

064-10-21-01131

1. This author wrote “I am an old man now, and a lonesome man in Kansas” in his poem “Wichita Vortex Sutra.” Another of his poems asks “Which way does your beard point tonight?” That poem, “A Supermarket in California,” was published along with a poem that repeats the line “I’m with you in Rockland” and is addressed to Carl Solomon. The line “I saw the best minds of my generation destroyed by madness” begins the best known work of, for 10 points, what American poet who wrote “Howl”?

ANSWER: Irwin Allen **Ginsberg**

083-10-21-01132

2. One type of motion at this location is called Slichter modes, and the existence of this location was first proposed by Inge Lehmann. The rotation of this region and its interaction with a region above it give rise to the dynamo theory, the idea that this region is responsible for the Earth's magnetic field, and this region is theorized to be solid despite its high temperature, because of the high pressure here. For 10 points, identify this deepest region of the Earth, located within a similarly-named "outer" region.

ANSWER: **inner core** [prompt on **core**]

081-10-21-01133

3. This man discovered that cubic closed packing and hexagonal closed packing arrangements were the most efficient ways to pack spheres. One law developed by this relates the square of an object’s orbital period to the cube of its semimajor axis. Another law developed by him is based off of the conservation of angular momentum and typically stated as equal area over equal time. For 10 points, name this developer of three laws of planetary motion, this first of which states that the planets orbit the sun in an ellipse.

ANSWER: Johannes **Kepler**

064-10-21-01134

4. In 2007, this country’s president resigned following rape allegations. The current prime minister of this nation is the brother of a man who died during a 1976 hostage operation at Uganda’s Entebbe Airport. Diplomatic talks involving this nation have recently stalled following an increase in settlement construction. In May 2010 this nation was at the center of controversy following a botched raid on a Turkish organized flotilla. For 10 points, name this nation currently led by Benjamin Netanyahu.

ANSWER: State of **Israel**

064-10-21-01135

5. The Treaty of Frankfurt ended this conflict whose underlying cause was a possible Hohenzollern candidate to the Spanish throne following the deposition of Isabella II. The Paris Commune was formed in this war’s aftermath. This war was sparked by the Ems dispatch. During it, Napoleon III was captured at the Battle of Sedan by forces overseen by Otto von Bismarck. For 10 points, name this 1870-1871 European conflict that led to formation of a unified Germany.

ANSWER: **Franco-Prussian** War

064-10-21-01136

What mountain range runs from the Cape York Peninsula to the province of Queensland along the eastern coast of Australia?

ANSWER: **Great Dividing Range** [or **Eastern Highlands**; or **Great Divide**; or **Eastern Cordillera**]

064-10-21-01137

This is a 10-second computation question. Solve for x in $10x + 8 = 20$.

ANSWER: x = **1.2**

064-10-21-01137