

1. This novel's protagonist empties a spittoon on a man whom he confuses for a person that gave him false letters of recommendation. The protagonist of this novel listens to Homer Barbee, after which the protagonist is mistaken for Rinehart and ends up fighting with Lucius Brockway. This novel ends with a riot in Harlem because of Tod Clifton's death. For 10 points, name this novel that contains the scene "Battle Royal" and features Brother Jack of the Brotherhood, whose anonymous title character was created by Ralph Ellison.

ANSWER: Invisible Man [do not accept "The Invisible Man"]

033-09-2-09101

2. Neil Bartlett created the hexafluoroplatinate (HEX-uh-FLOOR-oh-PLAT-in-ate) of one element in this family, which was the first compound using a member of this family to violate the octet rule. The only known radioactive element in this family is the leading cause of lung cancer to non-smokers. These elements are defined as having a full electron shell, leading to their relative inertness. For 10 points, name this group found at the extreme right of the Periodic Table, which includes xenon and radon.

ANSWER: noble gases [or Group 18; or Group VIIIA (eight-A); or inert gases before "inertness"]

003-09-2-09102

3. One character in this play claims that another character "doth teach the torches to burn bright." This play is set in a place ruled by Prince Escalus, whose relative, Count Paris, wants to marry one of the title characters. One character in this play initially loves Rosaline. In this play, Tybalt kills Mercutio in a duel. Friar Lawrence prepares a potion in this play that makes one character appear dead for twenty-four hours. For 10 points, name this Shakespeare play in which the title characters fall in love despite the enmity between the Capulets and the Montagues.

ANSWER: Romeo and Juliet

015-09-2-09103

4. In this battle, the crucial Bar-le-Duc road became known as the "Sacred Way." Erich von Falkenhayn masterminded one side's forces in this battle. The namesake fortification of this battle was established as a counterpart to the German stronghold at Metz. French troops at this battle were led by Philippe Petain. This battle took place along the Meuse river. For 10 points, name this World War I battle in which French troops, inspired by the cry, "They shall not pass," repelled a German offensive in 1916.

ANSWER: Verdun

030-09-2-09104

5. In one of his novels, Alexandra, Jane, and Sukie seek revenge when Darryl Van Horne decides to marry the young Jenny Gabriel. That novel is *The Witches of Eastwick*. In one of his short stories, the protagonist Sammy gives the unflattering nickname of "Big Tall Gooney" to one character. In that story, Sammy quits his job after Lengel threw three girls in bathing suits out of the title grocery store, "A&P." This man also wrote a series of novels about a former basketball star who has an unhappy marriage to Janice, Harry Angstrom. For 10 points, name this author of novels such as *Rabbit Redux* and *Rabbit Run*.

ANSWER: John Updike

030-09-2-09105

6. This man ironically issued the Decree of War to the Death, which permitted any atrocities to be committed against his enemies during his Admirable Campaign. This leader received aid from Alexandre Petion. This man summoned the Congress of Angostura. This leader wrote the Cartagena Manifesto after fleeing from the fall of Francisco de Miranda's republic. The Congress of Cucuta elected this man President of Gran Colombia. In the battles of Boyaca and Carabobo, this secured the independence of Colombia and Venezuela. For 10 points, name this Liberator of South America from Spanish rule.

ANSWER: Simon Jose Antonio de la Santisima Trinidad Bolivar y Palacios Ponte Blanco

035-09-2-09106

7. In one of this man's poems, the speaker declares that "the armies of those I love engirth me" and asks "if the body were not the Soul, what is the Soul?" In another of this man's poems, the speaker looks up "in perfect silence at the stars" after hearing a lecture full of "the charts and the diagrams" This author of "When I Heard the Learn'd Astronomer" wrote a collection that includes a poem in which the speaker sounds his "barbaric yawp over the roofs of the world." For 10 points, name this poet who wrote "O Captain! My Captain!" and the collection *Leaves of Grass*, which contains his "Song of Myself."

ANSWER: Walter "Walt" Whitman

032-09-2-09107

8. This object is not present in a series of models dubbed "Technicolor." One theory on how to produce one of these objects is based on gluons decaying into a top quark and its antiparticle, then fusing. Another theory on how they form involves the fusion of certain "W" and "Z" particles. The Standard Model predicts the existence of this particle, while confirmation of its existence will hopefully be supplied by experiments in the Large Hadron Collider. For 10 points, name this "God Particle" that is a boson named for a scientist.

ANSWER: **Higgs** Boson

033-09-2-09108

9. This piece includes the song "In the Tavern," in which a tenor soloist sings as a swan roasting on a spit, and this piece was often performed before the composer's semi-staged Passions of Bach. Other songs in this piece include "Court of Love" and "Banziflor and Helen," and this piece was derived from a medieval collection of songs discovered by J.A. Schmeller in the Benediktbeuern monastery. For 10 points, name this musical work that begins and ends with songs entitled "O Fortuna," a work by Carl Orff.

ANSWER: **Carmina Burana**

030-09-2-09109

10. This organelle's outer membrane contains an antiporter that exports triose phosphate, and precursor proteins are imported here using Tic and Toc proteins. Like mitochondria, these organelles are thought to have evolved through endosymbiosis (EN-do-sim-by-OH-sis). Lamella connect the grana inside this organelle. Those grana are stacks of suborganelles inside of which photophosphorylation (FO-toe-FOSS-for-ill-AY-shun) occurs. These organelles contain thylakoids, which possess light-absorbing pigments like chlorophyll. For 10 points, identify this organelle responsible for photosynthesis.

ANSWER: **chloroplasts**

022-09-2-09110

11. This country's involvement in one war started when its ship *Marques of Olinda* was captured. That war saw this country's forces commanded by the Duke of Caxias (CAH-she-us). This country's independence was achieved after the "Fico Speech" and the "Cry of Ipiranga" by its first emperor. Slavery was gradually abolished in this country; first by the Law of the Free Womb and then by the Golden Law. This country was first discovered by Pedro Cabral. Emperors of this country included Pedro I and Pedro II. For 10 points, name this country colonized by Portugal in South America.

ANSWER: Federative Republic of **Brazil** [or Republica Federativa do **Brasil**]

026-09-2-09111

12. One of this composer's piano works closes with a march of the fictional "Davidsbündler" league and spells A-S-C-H in a recurring motif. In addition to the opera *Genoveva* and the song cycle *Dichterliebe*, this composer wrote the piano works *Scenes from Childhood* and *Kreisleriana*, as well as a Third Symphony in E Flat known as the "Rhenish." For 10 points, name this composer of *Carnaval* and a "Spring" Symphony.

ANSWER: Robert **Schumann**

012-09-2-09112

13. This procedure is accomplished in square-root-of-n time using base-two-log-n space on a quantum computer via Grover's algorithm. Varieties of this algorithm on graphs include best-first, breadth-first, and depth-first. A great improvement on naïve methods for doing this assumes that the list is sorted and eliminates half the list on each pass, the "binary" algorithm. For 10 points, name this class of algorithms, the simplest of which simply reads through a list from top to bottom and compares each element to the target.

ANSWER: **searching**

022-09-2-09113

14. This city is home to a murder and a political assassination on the same day in the novel *The Day the Leader was Killed*. The author of that work created a character who gains a BA in philosophy from a university in this city. Siblings of that character live on *Sugar Street* and in the *Palace of Desire* in this city. This city is the home to Amina, whose husband illicitly drinks wine and has affairs. That husband still rules over the inhabitants of *Palace Walk* in this city. For 10 points, name this city that gives its name to a trilogy of novels by Egyptian author Naguib Mahfouz.

ANSWER: **Cairo** [or **al-Qahira**]

020-09-2-09114

15. This type of tissue can be divided into hyaline and fibro- types based on the amount and distribution of proteoglycans and collagen fibers. The fibro- type is found in intervertebral disks, and the hyaline type is replaced in rheumatoid arthritis. A third, elastic type of this highly nonvascular tissue gives structure to the external ear. For 10 points, give this type of connective tissue found in the nose and on the surface of bones.

ANSWER: **cartilage**

003-09-2-09115

1A. A mural in Philadelphia depicted this figure choking a dog painted in Cowboys' colors. Name this controversial quarterback, recently released from prison after pleading guilty to dogfighting.

ANSWER: Michael **Vick**

1B. An attempt to rebut the claims of global warming saw his publishing on *An Inconvenient Book*. Name this radio and Fox News personality who cried as he claimed that he loved this country and feared for it.

ANSWER: Glenn **Beck**

2A. One example of this form tells the story of Jonathan and Mina Harker as they help track down the titular vampire, *Dracula*. Name this literary form in which a story is told through a series of letters.

ANSWER: **Epistolary**

2B. One form of these is the Italian, which can be distinguished from the English form based on its rhyme scheme. Name this form of poetry consisting of 14 lines usually in 2 stanzas.

ANSWER: **sonnets**

3A. It contains nearly 75 percent of the atmosphere's mass. Name this layer of the atmosphere where weather occurs, rising from ground level to a height of around ten kilometers.

ANSWER: **Troposphere**

3B. The Spanish word for left, Izquierda, is a loan word from this language, that notably has never been shown to have a direct relationship with any other language. Name this language spoken by an ethnic group mostly living in northern Spain.

ANSWER: **Basque** [or **Euskara**]

4A. This is a 10-second calculation question. State the contrapositive of the following statement: If it's Thursday, then there are chicken nuggets in the cafeteria.

ANSWER: **If there are not chicken nuggets in the cafeteria, then it is not Thursday** [or anything starting with **if no chicken nuggets**, and ending with **it is not Thursday**]

4B. This is a 10-second calculation question. What is the degree measure of an angle whose complement is 73 degrees?

ANSWER: **17** degrees

5A. Forming just northeast of Front Royal, it empties into the Potomac at near Harper's Ferry. Name this river whose namesake valley lies just west of the Blue Ridge Mountains.

ANSWER: **Shenandoah** River

5B. One test of this principle involved filling a room with smoke. Name this sociological principle stating that the more people are gathered when something goes wrong, the less likely anyone is to do anything, first observed in the murder of Kitty Genovese.

ANSWER: **bystander** Effect

6A. This is a 20-second calculation question. You roll two fair 6 sided die. What is the probability that the sum of the dice is 9?

ANSWER: **4/36** or **1/9** or equivalent

6B. This is a 20-second calculation question. What is the fifth term in the sequence whose first four terms are 1/2, 1/4, 1/7, and 1/11?

ANSWER: **1/16** [Given the nth term is 1/C, then the n+1st term is 1/(C+n)]

7A. She was sued by Daniel Berg claiming plagiarism of his work in a suit she filed on behalf of Alan Keyes. Name this California lawyer whose attempts to claim Barack Obama is a foreigner included claims that she was being interviewed by a brownshirt.

ANSWER: Orly **Taitz**

7B. The presence of this organelle determines whether or not a cell is eukaryotic. Name this control center for the cell where DNA is kept.

ANSWER: **nucleus**

8A. Name this Serbian inventor who won the "War of Currents" against Edison with George Westinghouse's help after demonstrating wireless transmission in 1894.

ANSWER: Nikolai **Tesla**

8B. Jay Leno caused him to break down by asking what his mother would think of his recent actions. Name this musician who interrupted Taylor Swift's speech at the Video Music Awards.

ANSWER: **Kanye West** [accept either underlined part]

9A. This is a 30-second calculation question. Convert 1234 into a binary number.

ANSWER: **10011010010**

9B. This is a 30-second calculation question. Factor the following cubic expression: a cubed minus 3 a squared minus 13 a plus 15.

ANSWER: **(a-1)(a+3)(a-5)** [or the three expressions multiplied in any order]

10A. Its weight relative to the atmosphere allows balloons inflated with it to float, and inhaling it can change the pitch of a person's voice. Name this noble gas, an element found in stars with atomic number two.

ANSWER: **Helium**

10B. One painting of this figure shows her with an elongated neck, while a Da Vinci work depicts this woman "of the Rocks." Name this figure important to the early church.

ANSWER: **Mary**

002-09-2-09116

1. In this election, Benjamin Butler became the last presidential nominee of the Greenback Party. One major party candidate in this election was accused of fathering an illegitimate child with Maria Halpin. The other major candidate of this election was attacked as a "continental liar from the state of Maine." The Democratic nominee carried the election due to the defection of the Mugwumps and backlash from the slogan "Rum, Romanism, and Rebellion." For 10 points, name this election in which James Blaine lost to Grover Cleveland, the first of Cleveland's non-consecutive election wins.

ANSWER: **1884** United States Presidential Election

003-09-2-09117

2. This man threw the only shutout of the 1993 World Series, and started Game Seven of the 2001 World Series. This man won Game Six of the 2004 American League Championship Series on an injured ankle, an event commemorated by his "bloody sock." In September 2009, via his blog, 38 Pitches, he declined to run for the open Senate seat from Massachusetts. For 10 points, name this pitcher that officially retired in March 2009 after stints with the Orioles, Phillies, Diamondbacks, and Red Sox.

ANSWER: (Curtis Montague) "Curt" **Schilling**

003-09-2-09118

3. One of this author's female characters wishes to marry the Brazilian Jose Ybarra-Jaeger, and that woman's brother Fred was killed overseas at war. This author wrote about how that same woman wishes to eat the title meal because nothing bad will happen at a certain jewelry store. Another book by this creator of Holly Golightly ends with the execution of two men who were investigated by Alvin Dewey. This man wrote a book about the crime of Dick Hickock and Perry Smith. For 10 points, name this author of *Breakfast at Tiffany's*, and a book about the murder of the Clutter family in Kansas, *In Cold Blood*.

ANSWER: Truman **Capote** [or Truman Streckfus **Persons**]

027-09-2-09119

4. The generating function for these numbers is "z over the quantity 1 minus z minus z squared." The ratio between successive elements in this sequence converges to a continued fraction with all ones, which is equal to the golden ratio. The shallow diagonals of Pascal's triangle sum to these numbers, and these numbers were first proposed in a problem involving reproducing rabbits. For 10 points, name this sequence beginning "one, one, two, three, five," where each element is the sum of the previous two elements.

ANSWER: **Fibonacci** numbers or sequence

028-09-2-09120

5. This man's "Young Jesus with the Doctors" includes an inscription that says, "the work of five days." He created the altarpiece "The Feast of the Rose Garlands" for the church of St. Bartholomew in Venice. This man painted a portrait of his master Michael Wohlgemuth. A lion sleeps next to a dog in the foreground of this artist's *St. Jerome in his Study* and an hourglass, compass, and scale appear in this man's *Melancholia I*. For 10 points, name this German artist of *Knight, Death, and the Devil* and *The Four Horsemen of the Apocalypse*.

ANSWER: Albrecht **Durer**

030-09-2-09121

6. This man married the daughter of the Lombard king Desiderius, though he later conquered the Lombard kingdom. This man's father had served as Mayor of the Palace before usurping Childeric III, the last Merovingian king. The Basques defeated this man's rearguard at the Battle of Roncevaux Pass, inspiring the later *Song of Roland*. This man was succeeded by his son Louis the Pius. This man's father Pippin the Short established the Carolingian dynasty. For 10 points, name this Frankish king crowned as Holy Roman Emperor on Christmas Day in 800.

ANSWER: **Charlemagne** [or **Carolus Magnus**; or **Charles** the **Great**; prompt on **Charles**; prompt on **Carolus**]

028-09-2-09122

7. This character laments that his "native hue of resolution is sicklied o'er with the pale cast of thought" and that "conscience does make cowards of us all." This character wishes that his "too too solid flesh would melt, thaw, and resolve itself into a dew!" after a ghost tells him to revenge his father's death. Later, this character murders Polonius while visiting his mother Gertrude. For 10 points, name this character who wonders "to be, or not to be," a prince of Denmark who names a Shakespearean tragedy.

ANSWER: Prince **Hamlet**

004-09-2-09123

8. In one poem of the *Elder Edda*, this god attends the feast of Aegir and delivers two solid stanzas of insults at the other gods. After the gods bet the sun and the moon that a builder cannot make a wall around Valhalla in a single summer, this god turns into a mare and gives birth to Odin's steed Sleipnir to distract the building team. He tells Hodr to throw a mistletoe sprig at Baldur, and is punished by having acid dripped onto his back, which his wife Sigyn assuages. For 10 points, name this god who fathered Fenrir and Hel with Angrboda, who is best known as the Norse trickster god.

ANSWER: **Loki**

026-09-2-09124

9. This politician lost many supporters because of his rough treatment of General Ralph Zwicker. The Hennings Report investigated this politician. This politician's reputation plummeted after Joseph Welch asked him, "Have you no sense of decency?" Roy Cohn worked alongside this politician. This man accused the State Department of harboring a number of Communists. For 10 points, name this Wisconsin Senator who led the post-World War II Red Scare.

ANSWER: Joseph Raymond **McCarthy**

004-09-2-09125

10. This goddess mothered Zagreus and turned Minthe into an actual mint plant. Because he lusted for this figure, Pirithous was condemned to sit on a chair with snakes coiled around his feet. Aphrodite disputed with this goddess over Adonis, who spent four months of the year with each of them. In the best known myth involving this figure, her mother neglects the duties of the earth after she is pulled into the Earth by a chariot and eats three pomegranate seeds. The Romans knew her as Proserpine. For 10 points, name this daughter of Demeter and wife of Hades.

ANSWER: **Persephone** [or **Kore**; or **Cora**]

020-09-2-09126

11. The modern version of this political party was created by the Tamworth Manifesto. George Bentinck was among those who ousted one leader of this party after a split involving the Corn Laws. In addition to being led by Robert Peel, this party was led by the man who passed the Reform Bill of 1867 and responded to the Suez Crisis. That leader of this party holds the distinction of being Britain's only Jewish Prime Minister. Benjamin Disraeli was a major figure in this party, whose members are popularly referred to as "Tories." For 10 points, name this right-wing British political party more recently led by Margaret Thatcher.

ANSWER: **Conservative** Party of the United Kingdom [or **Conservative** and Unionist Party; or **Tories** before it is read]

028-09-2-09127

12. This author wrote about the policeman Centuri in his work featuring Fronza and Signora Frola. Another work of this author contains a character who wears scissors on her chain and another character who finds a little girl in a fountain. This author of *Right You Are, (If You Think You Are!)* and *Mixing It Up* used the latter play in his work that features Madame Pace, The Mother, The Father, The Stepdaughter, and The Son. For 10 points, name this Italian author who wrote *Six Characters in Search of an Author*.

ANSWER: Luigi **Pirandello**

033-09-2-09128

13. Madden-Julian Oscillation usually occurs a year before these events though rarely during these events, and Walker Circulation tends to be weaker during these events. These events have also coincided with decreases in hurricane formation in the Atlantic and these events cause a decrease in upwelling off the Pacific coast of South America. This event is the warm phase of Southern Oscillation on the tropical Pacific Ocean. For 10 points, name this phase of a periodic atmospheric and oceanic cycle that is paired with the La Nina.

ANSWER: **El Nino** [**ENSO** or **El Nino Southern Oscillation**]

036-09-2-09129

14. A claim that the government of this state was "non-republican" was denied in the Supreme Court case *Luther v. Borden*. Agitation over the fact that this state's constitution only allowed land-owners to vote turned into a 1841 rebellion in this state led by Thomas Dorr. The founder of the colony that became this state wrote *The Bloody Tenent of Persecution*. Anne Hutchinson led one group that settled in this state. This state was founded as a center of religious freedom by Roger Williams. For 10 points, name this state that had its first settlement established at Providence.

ANSWER: **Rhode Island**

028-09-2-09130

15. This region is bordered to the north by the Kunlun Mountains. The Yarlung Zangbo Grand Canyon of this region is carved out by the Brahmaputra River, which cuts an eastward path across this region. This region was recently connected by high-speed rail to Qinghai, and the largest city here contains both the Jokhang Temple and the Potala Palace. That city, Lhasa, is the capital of a namesake "autonomous region" of China. For 10 points, name this plateau that is nicknamed the "Roof of the World" and is bordered to the south by the Himalayas.

ANSWER: **Tibetan** Plateau

036-09-2-09131

1. Thinkers associated with this ethical philosophy include Peter Singer and Herbert Spencer. This philosophy was founded by the author of *A Fragment on Government* who also created a felicific calculus, Jeremy Bentham. A book named for this philosophy discusses the Greatest-Happiness principle and was written by John Stuart Mill. For 10 points, name this ethical philosophy which holds that the worth of an act lies in the benefits it creates.

ANSWER: utilitarianism

024-09-2-09132

2. This man claimed that Freud's work dealt with the "sick half" of humans, and that this man's goal was to focus on the "happy half" in his work *Toward a Psychology of Being*. One term popularized by this man was first used by Kurt Goldstein, and this man gave examples such as Albert Einstein and Eleanor Roosevelt as people who had achieved that term. This social scientist theorized a system that is based on fulfilling physiological needs and safety and moves through stages like love and esteem to self-actualization. For 10 points, name this American psychologist who conceptualized a "hierarchy of needs."

ANSWER: Abraham Harold Maslow

026-09-2-09133

3. "Artificial" structures of this type can be made using bacteria or yeast. Abnormal ones can be diagnosed through their namesake "painting" or through banding analysis, and a set of these structures is called a karyotype. Linear ones must include a replication origin, a centromere sequence, and two telomere sequences, and they are highly condensed during metaphase. For 10 points, name these structures of which humans have twenty-three pairs.

ANSWER: chromosomes

003-09-2-09134

4. One of this author's novels contrasts the strained relationship between Dolly and Stepan Oblonsky with the happy relationship of Kitty and Constantine Levin. Another of this author's novels describes Pierre Bezukhov's attempt to capture Napoleon. This author wrote a novel about an upper-class woman's affair with Count Vronsky and a sweeping historical novel about the French invasion of Russia. For 10 points, name this Russian author of *Anna Karenina* and *War and Peace*.

ANSWER: Count Leo Tolstoy [or Count Lev Nikolayevich Tolstoy]

004-09-2-09135

5. One law governing this process sets the flux proportional to a certain spatial derivative and is named after Adolph Fick. For a gas, the rate of this process is proportional to the square root of molar mass by Graham's Law. When water undergoes this process by moving across a semipermeable membrane, it is called osmosis. For 10 points, name this process in which a compound moves from an area of high concentration to an area of low concentration.

ANSWER: diffusion [or effusion before "osmosis"]

003-09-2-09136