

1. This process consists of the extrinsic pathway followed by the intrinsic pathway, which produces kallikrein (kal-ih-KREE-in). Those two pathways are this process's namesake "cascade." Those who cannot do it may suffer from Christmas disease or a defective von Willebrand factor. It converts fibrinogen, or Factor 1, to fibrin, which polymerizes (puh-LIM-uh-"rises") to form a thrombus. A defect in Factor 8 of this process causes hemophilia A, which is the inability of the body to perform this process. It is also called coagulation. For 10 points, name this process in which platelets form to stop bleeding.

ANSWER: blood **clotting** [accept word forms; accept **thrombosis** before "thrombus" is mentioned; accept **coagulation** before mentioned]

079-11-25-04101

2. T.S. Eliot, in his essay of this name, claimed that this group was "in the direct current of English poetry." One member of this group is best known for shaped "concrete poems" such as "Easter Wings" from his collection *The Temple*. This group named by John Dryden employed elaborate metaphors known as "conceits," such as the comparison of two lovers to the arms of a compass in "A Valediction: Forbidding Mourning." For 10 points, name this loose group of 17th-century English poets which includes George Herbert, Andrew Marvell and John Donne.

ANSWER: **metaphysical** poets

082-11-25-04102

3. This politician responded to the Summerdale scandal by appointing O. W. Wilson as Superintendent of Police. He reneged on the promises he made to combat housing discrimination in a "gentleman's agreement" he made with Martin Luther King Jr., whose assassination caused him to order police to "shoot to kill" arsonists. During his time in office, a "police riot" attacked protesters at the 1968 Democratic National Convention, which was held in his city. For 10 points, name this politician who served as Mayor of Chicago from 1955 to 1976.

ANSWER: Richard Joseph **Daley**

004-11-25-04103

4. In this language, the plural of feminine nouns is formed by adding "-aat" to the ending. Yes or no questions in this language are constructed by putting the word "hal" in front of the sentence. This language's alphabet has 28 letters and is written in cursive, from left to right; the first three letters of that alphabet are "alef," "baa," and "taa." The English word "algebra" comes from this Semitic language. For 10 points, name this language of the Q'uran.

ANSWER: **Arabic** [or al-**arabiyyah**]

080-11-25-04104

5. The pattern of masculine and feminine rhymes in the stanzas of this work has become known as either the stanza named for this work or the sonnet named for the author. A dying uncle in this work provokes the central figure to come to the countryside, but by the time that character has arrived, his uncle has died. At a ball in this work, the protagonist of this work dances with a friend's fiancée as much as possible, and after the resulting fight, he shoots Vladimir Lensky in a duel. For 10 points, name this verse drama by Alexander Pushkin about a nobleman.

ANSWER: **Eugene Onegin** [or **Yevgeny Onegin**]

002-11-25-04105

6. This compound is the primary component of the Griesbaum reaction. The Criegee Mechanism refers to the method by which this compound splits alkenes. It is one end of the Chapman cycle and it is diamagnetic in contrast to a similar paramagnetic compound that is the other end of the cycle. It is destroyed by hydroxy radicals. It can form in mixtures of oxygen gas and nitrous oxide. In the atmosphere, it helps screen out ultraviolet light. For 10 points, name this compound with formula O₃.

ANSWER: **ozone**

001-11-25-04106

7. One politician from this state noted that she would not have given a keynote address at the 1832 Democratic Convention, "but tonight, here I am," at the 1976 Democratic Convention. A politician from this state claimed that George H.W. Bush was "born with a silver foot in his mouth" at the 1988 Democratic Convention. This state was the home of Representative Barbara Jordan and Governor Ann Richards. Another politician from this state started the War on Poverty as part of his Great Society. For 10 points, name this home state of President Lyndon Baines Johnson.

ANSWER: **Texas**

030-11-25-04107

8. In 2008, Foreign Policy Magazine reported the first lady of this country often used a government plane to go to European fashion capitals. In January 2010, Hillary Clinton declared that, along with China, this nation had the greatest level of internet censorship in the world. The seizing of a vegetable cart in this country in December 2010, and subsequent self-immolation of the cart's owner, sparked protests in this country whose ousted president fled for Saudi Arabia. For 10 points, name this North African nation that ousted Zinedine Ben Ali (ZIN-uh-deen) in January 2011.

ANSWER: Republic of **Tunisia** [or Al Jumhuriyah at **Tunisiyah**]

002-11-25-04108

9. This author wrote a play in which the queen Atossa and the ghost of Darius react to news of a military defeat; that play is the only classical tragedy on a contemporary, rather than mythical, subject. This author of *The Suppliants* and *The Persians* also wrote about a man who is pursued to Athens to stand trial for murdering Clytemnestra, which happens in *The Libation-Bearers*. For 10 points, name this author of *The Eumenides* (yoo-MEN-id-eez) and *Agamemnon*, part of his *Oresteia*.

ANSWER: **Aeschylus**

019-11-25-04109

10. The Montonen-Olive Duality Conjecture concerns a field theory in which these particles exist as solitons; that theory was developed by 't Hooft and Polyakov. The original hypothesis of these particles' existence requires the use of two separate vector potentials and a singularity, and was developed by Paul Dirac. Gauss's Law of Magnetism, which states that the divergence of a magnetic field is zero, implies that these particles cannot exist. For 10 points, name these hypothetical particles that can only have an isolated North or South pole.

ANSWER: **magnetic monopoles** [prompt on **monopole**]

003-11-25-04110

11. One recurring character on this program learned how to speak "low-class" Thai from her mentor Bernard Fremont and was first exposed after murdering a dean at Hudson University. Whether that character lived or died was determined by an internet poll during a 2004 episode. In addition to serial killer Nicole Wallace, this show's characters included Zach Nichols, who was added after its original lead complained of exhaustion. Its upcoming season on USA will be its tenth and last, and will feature the return of Kathryn Erbe and the man replaced by Jeff Goldblum, Vincent D'Onofrio. For 10 points, Robert Goren methodically solves cases in what show, the least popular spinoff of a venerable NBC franchise?

ANSWER: *Law and Order: **Criminal Intent*** [or ***Law and Order: CI***; do not accept or prompt on "Law and Order" by itself]

019-11-25-04111

12. This character indicates to the audience that he will use one character's clasping of a woman's hand to "ensnare" him. Early on, this character says "But I will wear my heart upon my sleeve / For daws to peck at" when conversing with Roderigo at the opening of the play he appears in. This figure has his wife Emilia plant a handkerchief to suggest that the second-in-command of the title character, Michael Cassio, has been cuckolding him. He is ordered to be executed after his superior suffocates his wife Desdemona. For 10 points, identify this villain of Shakespeare's *Othello*.

ANSWER: **Iago**

020-11-25-04112

13. Evanescent waves increase, rather than decrease, in material with a negative value for this quantity, though such materials must be artificially engineered to have a negative permeability. This value appears squared as a function of frequency in the Frank-Tamm formula, which gives the energy emitted by particles traveling faster than the speed of light. The sine of the angle of incidence, divided by that of the angle of transmission, gives the ratio of this quantity for two different materials, via Snell's Law. For 10 points, name this measure of the speed of light in a material relative to that in a vacuum.

ANSWER: **index of refraction** [prompt on **n**]

003-11-25-04113

14. This author wrote "I've known her from an ample nation / Choose one; / Then close the valves of her attention" in one poem. In addition to penning the lines "The soul selects her own society" and "I felt a funeral in my brain," this author describes "butterflies renounc[ing] their drams" and being a "debauchee of dew" in one poem and feeling "zero at the bone" in another. In another poem, she described a carriage ride with Immortality and the title figure. For 10 points, identify this poet who wrote "I taste a liquor never brewed" and "Because I could not stop for Death."

ANSWER: Emily Elizabeth **Dickinson**

020-11-25-04114

15. English towns ending in the suffix "wich" were known for producing this resource. A medieval road that brought this resource from Lüneburg to Lübeck was a major source of the power of the Hanseatic League. The French Revolution abolished the unpopular centuries-long gabelle tax on this resource. The British tax on this resource inspired a 1930 march to the sea led by Gandhi in order to acquire it. For 10 points, name this resource that was vital for preserving meat before refrigeration, which caused it to be nicknamed "white gold."

ANSWER: **salt**

004-11-25-04115

1A. What U.S. state contains cities named Sparks, Paradise, Sunrise Manor, and Henderson?

ANSWER: **Nevada**

1B. Name the man who played for 1941 to 1963 as an outfielder for the St. Louis Cardinals whose nickname was "The Man" and who was awarded the Presidential Medal of Freedom in 2011.

ANSWER: Stan **Musial**

2A. Name this phylum whose members are found in free-floating medusa and stationary polyp forms, and which feature mesoglea and namesake stinger cells.

ANSWER: **Cnidaria**

2B. In what Johann Strauss operetta does Baron von Eisenstein delay his jail sentence to attend Prince Orlovsky's ball?

ANSWER: *Die **Fledermaus*** [or *The **Bat***]

3A. This is a 10-second calculation question. What is the product of the 1-by-2 matrix $\begin{bmatrix} 1 & 2 \end{bmatrix}$ multiplied by the 2-by-1 matrix $\begin{bmatrix} 4 & 1 \end{bmatrix}$? Your result will be a 1-by-1 matrix.

ANSWER: **6**

3B. This is a 10-second calculation question. In simplest terms, what is the result when $8 - 5i$ is multiplied by its complex conjugate?

ANSWER: **89**

4A. What city near the confluence of the Medlock and Irwell was the subject of Engels' *The Condition of the Working Class in England* and is the second largest city in England?

ANSWER: **Manchester**

4B. What is the name of the collection of galaxies that includes Andromeda and the Milky Way?

ANSWER: **Local Group**

5A. This is a 20-second calculation question. Given that the population standard deviation of the set $\{0, 5, 10, 15, 20\}$ is the square root of 50, what is the population standard deviation of the set $\{0, 10, 20, 30, 40\}$?

ANSWER: square **root** of **200** [or **10** square **root** of **2**; or **2** square **root** of **50**]

5B. This is a 20-second calculation question. What is the radius of a sphere whose surface area in square inches is numerically equal to its volume in cubic inches?

ANSWER: **3** inches

6A. What American author wrote about the literary agent Joe Allston in *The Spectator Bird* and about the disabled historian Lyman Ward in *Angle of Repose*?

ANSWER: Wallace **Stegner**

6B. What object in Greek mythology was created by Hephaestus to bring misfortune to its bearer and was given to Cadmus's wife?

ANSWER: the **Necklace** of **Harmonia** [accept any answer which mentions **necklace** and **Harmonia**]

7A. This is a 30-second calculation question. What is the probability of rolling three dice such that their sum is 9?

ANSWER: **25/216**

7B. This is a 30-second calculation question. What is the cosine of 22.5 degrees?

ANSWER: square **root** of quantity **(2 + square root of 2) divided by 4** [or square **root** of quantity **(1 + square root of 2 divided by 2) divided by 2**; accept synonyms for **divided by** such as **over**]

8A. What type of painting exaggerates its subject's appearance, an example of which is Honore Daumier's depiction of Napoleon III as *Gargantua*.

ANSWER: **caricature**

8B. Johann Becher first postulated which theory, now disproven, that attempted to explain combustion through the existence of a namesake substance in all burnable materials?

ANSWER: **Phlogiston** Theory

9A. What Impressionist painter of *The Bellelli Family* is known for his paintings and sculptures of ballerinas?

ANSWER: Edgar **Degas**

9B. What 4000 kilometer-long system of canyons on Mars was discovered by a namesake space probe?

ANSWER: **Valles Marineris** [or the **Valley of Mariner**]

10A. What type of memory, an extension of a computer's main memory, temporarily stores frequently used data for quicker processing by a computer's central processor?

ANSWER: **cache**

10B. Defeated at the Battle of Muhlberg, which organization, led by Philip I of Hesse and John Frederick I of Saxony, rebelled against Holy Roman Emperor Charles V?

ANSWER: **Schmalkaldic League**

1. This man suggests Wilberforce, Bathsheba, and Elvendork as names when his own is demanded by a policeman who has cornered him in an alley, and he was left money by his Uncle Alphard, which resulted in that man's name being burned off this character's family tree. Other relatives of this man include a cousin who can change her appearance at will, and another cousin who kills this man by knocking him through a mysterious veil in the Department of Mysteries. Cousin to Tonks and Bellatrix Lestrange and a member of the Marauders along with James, Remus, and Pettigrew, for 10 points name this godfather of Harry Potter whose animagus form is a large black dog.

ANSWER: Sirius Black [or Sirius Black]

081-11-25-04117

2. Drugs used to treat this disease include memantine and rivastigmine. One cause of this disease is the accumulation of proteins cleaved by beta-secretase rather than alpha-secretase. Those proteins are pathologic A-beta-forty-two, which form amyloid plaques in the "early onset" form of this disease. For 10 points, name this disease that causes progressive dementia.

ANSWER: Alzheimer's disease [prompt on AD]

003-11-25-04118

3. In one novel by this author, the no-good Henry Scaddon steals the identity of Maurice Christian Bycliffe and hides out as a servant, and an election day riot jeopardizes the career of Harold Transome. This author of *Felix Holt, The Radical* also wrote about Dunstan Cass's skeleton being found alongside a pile of gold in a pit in a book where Eppie is adapted by the title "weaver of Raveloe." For 10 points, name this novelist of *Middlemarch* and *Silas Marner*.

ANSWER: George Eliot [or Mary Ann Evans]

019-11-25-04119

4. He performed the first case study of a black community in America, entitled *The Philadelphia Negro*. He included spirituals in his collection of essays about black culture entitled *The Souls of Black Folk*. He edited the magazine *The Crisis*, which was the official magazine of an organization he co-founded, the NAACP. For 10 points, name this African-American sociologist who was opposed to the ideas of Booker T. Washington.

ANSWER: William Edward Burghardt Du Bois

027-11-25-04120

5. Although it never explicitly uses the word, this work popularized the concept of "decorum" in insisting that unbelievable or grotesque actions not be depicted directly. It was written in verse as a letter to the Pisonese. It warns against flowery and irrelevant "purple patches," suggests a division into five acts, and compares its subject to painting. This work also acknowledges that even Homer nods and praises that poet for not starting from the egg but beginning "in medias res." For 10 points, name this critical text by Horace.

ANSWER: Ars Poetica [or *The Art of Poetry*]

015-11-25-04121

6. This ruler's forces took part in a "Fury" named for his country that resulted in the massacre of 7,000 civilians during the sack of Antwerp. This king had a site built for him that was finished by Juan de Herrera and located about thirty miles north of his capital. This creator of the Escorial (ESS-core-ree-ALL) fought the start of the Eighty Years' War against William the Silent and the Netherlands. This man's plan to take over England was spoiled by the Protestant Wind. For 10 points, name this king of Spain who organized the Spanish Armada.

ANSWER: **Philip II** of Spain [prompt on **Philip**]

020-11-25-04122

7. This quantity is measured along with volume on a Gran plot, and one device for measuring this quantity was developed by Arnold Orville Beckman. An analogue of this value is used to determine potential in an electrochemical cell in the Nernst equation, and a related value to this quantity, alkalinity, is derived from it and measures the concentration of hydroxide ions in a solution. For a high value of this quantity, phenolphthalein will turn pink, indicating the presence of a base, and it is calculated using the negative log of the concentration of hydrogen ions. For 10 points, name this chemical quantity that runs from values of 0 to 14, used to indicate acidity.

ANSWER: **pH**

081-11-25-04123

8. Matthew Lyon was re-elected from prison after being convicted by these laws, which targeted the editor of the *Philadelphia Aurora*, Benjamin Franklin Bache. These laws were passed during the Quasi-War. They were deemed unconstitutional by the Kentucky and Virginia Resolutions. The first three were designed to target French citizens in order to weaken the Democratic-Republican Party. The last one made it a crime to criticize the government or the president. For 10 points, name these four laws passed in 1798 under John Adams that allowed the government to imprison foreigners or dissenters.

ANSWER: **Alien and Sedition** Acts

004-11-25-04124

9. A 2003 paper by Chandra Wickramasinghe suggested that the SARS virus could have come from this location, while a substance found in abundance in this location is measured in Dobson units. The fact that bacterial life, as well as some birds, are able to exist in this region makes it part of the biosphere, and the aforementioned abundant compound found in this location forms in the middle of this region because the lower incidence of UV rays there make O and O₂ more able to combine. For 10 points, name this layer of the atmosphere directly above the troposphere, that contains the ozone layer.

ANSWER: **stratosphere**

081-11-25-04125

10. G.E. Moore wrote a book on the principles of this subject, in which he described the naturalistic fallacy. Spinoza's book on this philosophical subject is divided according to a "geometric" scheme. Aristotle's book on this describes the highest aim in life as happiness, and is named after his son Nicomachus. For 10 points, name this subject within philosophy which is concerned with questions of morality.

ANSWER: **Ethics**

084-11-25-04126

11. Harry Markopolous claimed this man was a fraud in 1999, as he details in his book about investigating this man, *No One Would Listen*. Jeffrey Picower was the biggest beneficiary of this man's actions, and JP Morgan Chase may have profited by as much as a billion dollars from his man storing his capital in an account at that bank. In March 2009, this man was given a 150 year sentence after he pleaded guilty to fleecing investors out of billion dollars through fraudulent investments. For 10 points, name this stock broker serving time in jail for running an enormous Ponzi scheme.

ANSWER: Bernie **Madoff** [or Bernard Lawrence **Madoff**]

002-11-25-04127

12. Ceva's theorem deals with lines constructed in these polygons, and Apollonius' theorem also deals with these polygons. The Euler line of one of them passes through several significant points, including the center of the nine-point circle. Their area can be calculated using Heron's formula. A fractal named for Sierpinski is based on these polygons, which have centroids, orthocenters, and circumcenters. For 10 points, name these polygons which may be scalene or equilateral.

ANSWER: **triangles**

024-11-25-04128

13. This poet wrote "let geese gabble and hiss, but heroes seek release" in a poem praising geometry, "Euclid alone has looked on Beauty bare." Another of her poems concludes that "he whose soul is flat--the sky will cave in on him by and by" after describing the death and resurrection of a narrator who begins to feel the entire world. This author of *The Balled of the Harp-Weaver* first gained acclaim for the poem "Renascece." For 10 points, name this poet whose *A Few Figs from Thistles* contains the line "my candle burns at both ends, it will not last the night."

ANSWER: Edna St. Vincent **Millay** [or Nancy **Boyd**]

019-11-25-04129

14. This composer adopted the theme from the finale of his third symphony for a series of fifteen variations for piano in e-flat major. He was praised by Goethe for his incidental music to the play *Egmont*. This teacher of Carl Czerny included the movement "scene at the brook" in his sixth symphony. This man removed the dedication of his third symphony after Napoleon declared himself emperor. He set a Schiller poem in his "choral" or ninth symphony. For 10 points, name this Romantic German composer who wrote the Moonlight Sonata before going deaf.

ANSWER: Ludwig van **Beethoven**

015-11-25-04130

15. This man's vice presidential candidate was told "Senator, you're no Jack Kennedy" during a debate. One ad supporting this man's campaign depicted a revolving door in a prison and another critiqued the "weekend passes" given to Willie Horton. In another incident from that campaign, this man declared "read my lips: no new taxes." That campaign helped this Republican defeat Michael Dukakis. For 10 points, name this U.S. president who defended Kuwait in the Gulf War before being defeated by Bill Clinton in his 1992 bid for reelection.

ANSWER: George **Herbert Walker Bush** [accept anything that indicates the earlier or older Bush; prompt on **Bush**]

015-11-25-04131

1. In one of this author's stories, Lester Cochran dies of a heart attack just before he can make amends with his daughter Mary. This author of "Unlighted Lamps" wrote a sketch about Louise Trunnion, a lover of the protagonist, whose mother's close relationship with Doctor Reefy is explored in "Death" and "Paper Pills." That work by this author of "Triumph of the Egg" opens with the "Book of the Grotesque" and describes a former schoolteacher named Wing Biddlebaum in "Hands." For 10 points, name this American author who set stories about George Willard in the town of Winesburg, Ohio.

ANSWER: Sherwood **Anderson**

020-11-25-04132

2. In 1961, this man won reelection with the results being 1,320,478 in favor and none opposed. Dissidents against this man fled to a neighboring country led by Juan Bosch. This man ordered the killing of black dogs because he believed opponent Clement Barbot could shapeshift. He employed a militia called the Tonton Macoutes, which took their name from a Creole term for the bogeyman. His son recently returned to his home country to potentially challenge president Rene Preval. For 10 points, name this dictator of Haiti who used the alias "Papa Doc."

ANSWER: **Francois Duvalier** [or **Papa Doc Duvalier**; or **Papa Doc** before mentioned; prompt on **Duvalier**]

052-11-25-04133

3. This religion's communities set up training institutes for their members, which often base their curriculum on the seven Ruhi books. The founder of this religion wrote as one of his last works the *Epistle to the Son of the Wolf*. This faith has a legislative body of nine members in Haifa at the Universal House of Justice. Its calendar has four intercalary days in addition to its nineteen months made up of nineteen days. The founder of this religion was a follower of the Bab and took up the name Baha'u'llah. For 10 points, name this inclusive faith started in nineteenth century Persia.

ANSWER: **Baha'i** Faith

023-11-25-04134

4. This author remarked that "satire is a sort of glass" in the preface to his satire depicting Modern books losing a fight to superior Ancient ones. The Ancients are also defended against the Moderns in this author's account of the island of Glubbudubdrib. A book by this author allegorizes England's tyranny over Ireland in its depiction of the flying island of Laputa, and portrays humanity as ugly Yahoos in contrast to intelligent horses called Houyhnhnms (WHUY - nimms). For 10 points, name this Irish author who wrote about voyages to Brobdingnag and Lilliput in *Gulliver's Travels*.

ANSWER: Jonathan **Swift**

004-11-25-04135

5. This university is the home of "impossibility theorem" developer Kenneth Arrow. The 36 boys and 36 girls who participated in Alfred Bandura's Bobo doll experiment were pulled from this university's Nursery School. The eugenics enthusiast Lewis Terman suggested testing "mental age" and "chronological age" in his adaptation of the Binet-Simon test created while working at this school. Another experiment at this school had subjects chosen as guards and captives at random. For 10 points, name this university where Philip Zimbardo conducted a "prison" experiment.

ANSWER: **Stanford** University

015-11-25-04136

This is a calculation question. You have 20 plastic bags and 16 paper bags. If you choose two bags at random without replacement, what is the probability of selecting two plastic bags? Express your answer in simplest terms.

ANSWER: **19/63**

015-11-25-04137

What Australian novelist wrote *Bliss*, *True History of the Kelly Gang*, and *Oscar and Lucinda*.

ANSWER: Peter **Carey**

015-11-25-04137