

1. These events are stratified by risk in the Killip classification. Damage from these events are usually assessed using a Thallium-201 scan, and they are often diagnosed by noting an elevated CK-MB and troponin level. They are treated by catheterization followed by anti-platelet medications. They can be sorted by whether they cause an ST-segment elevation on an EKG, and they usually present after occlusion of a vessel, resulting in ischemia and chest pain that can radiate down the arm. Prevented by taking aspirin daily, for 10 points, name these medical events that result from death of heart tissue, also known as myocardial infarctions.

ANSWER: heart attacks [or myocardial infarction before mentioned; or MI before "myocardial infarction is read"]

048-11-25-08101

2. The case of *Winters v. United States* prevented utility companies from using water intended for these entities. The largest one of these is partially in Arizona, Utah and New Mexico and has its capital at Window Rock. Ten students died in a school shooting in the Red Lake massacre that occurred on one of these in Minnesota. Many of these places were decimated by the individual ownership allowed under the Dawes General Allotment Act of 1887. For 10 points, name these sites in which jurisdiction is split between state, federal, and tribal authorities.

ANSWER: Indian reservations

015-11-25-08102

3. One principle important to understanding this phenomenon is used by radio engineers to find the ratio between metal and slot impedances. Electrons passing through a nickel crystal undergo this effect, as discovered by Davisson and Germer. Babinet showed the equivalence of two versions of this phenomenon, and one version of it is described by a formula with a constant of 1.22. Fresnel and Fraunhofer name the near and far-field versions of this phenomenon, which is also described in terms of wavefronts by Huygens principle. It produces an Airy disk when occurring in a small hole. This behavior also occurs in a double-slit setup. For 10 points, name this phenomenon in which light bends as it passes through an opening or around an object.

ANSWER: Diffraction

048-11-25-08103

4. This politician gained one nickname while serving as Minister of Education under Edward Heath by ending a program that provided free milk for school children over seven years old. This leader of the "Dries" succeeded James Callaghan after an election that followed the strikes of the "Winter of Discontent." This prime minister's country was brought into a conflict after forces under Leopoldo Galtieri invaded the Falklands. For 10 points, name this Conservative British leader of the 1980s whose staunch anticommunist stance earned her the nickname "Iron Lady."

ANSWER: Margaret Hilda Thatcher [or Margaret Hilda Roberts]

023-11-25-08104

5. This organization received proceeds from drug-running at Lintin Island until a crackdown under Lin Zexu sparked a war. This company exacerbated an event by using farmland to cultivate opium, causing the Great Bengal Famine. Several officials of this organization were in the Black Hole of Calcutta after one of its leaders won the Battle of Plassey. Initially the rival of a similar company called the VOC, this organization ceded control of its namesake region to Victoria in 1858. For 10 points, name this English trading company that dealt in opium and tea in China and India.

ANSWER: **British East India** Company [or **John Company**; or **Company Bahadur**; accept words like "trading" added in; prompt on **East India Company**]

020-11-25-08105

6. This poet wrote "I wish that I might be a thinking stone" in a poem that opens by addressing "Mother of heaven, regina of the clouds." He discusses a figure who "beholds nothing that is not there and the nothing that is" after noting "one must have a mind of winter" in another poem. This author of "Le Monocle de Mon Oncle" and "The Snow Man" wrote about a bird that was "the only moving thing" among "twenty snowy mountains." For 10 points, name this American poet of "Thirteen Ways of Looking at a Blackbird" who wrote "Call the roller of big cigars" in "The Emperor of Ice Cream."

ANSWER: Wallace **Stevens**

015-11-25-08106

7. One of this man's sculptures is incomplete in such a way that its head appears to be sealed in marble, leading to its nickname of *Blockhead Slave*. Another of his sculptures depicts a man with bulging veins and a furious gaze running his fingers through his long beard. That work, based on a mistranslation of the Old Testament Hebrew, depicts Moses with horns and was made for the tomb of Pope Julius II. For 10 points, name this Renaissance Italian sculptor, who also depicted Mary cradling the dead Jesus in his *Pietà*.

ANSWER: **Michelangelo** Buonarroti [or Michelangelo **Buenarroti**]

080-11-25-08107

8. One agent used in this field causes a form of hepatitis resulting from the production of trifluoroacetic acid, and one of the pioneers of this field impressed John Collins Warren with a demonstration, who stated that "this is no humbug"; that was William Thomas Green Morton. Isoflurane, sevoflurane, and desflurane has replaced several compounds in this field, whose name was coined by Oliver Wendell Holmes Senior. Peter Murphy, a member of this profession, developed endotracheal intubation in the 1960s, and the first practitioners of this field used diethyl ether or nitrous oxide. For 10 points, name this field of medicine, which is concerned with knocking people out for surgery.

ANSWER: **anesthesia** [or **anesthesiology**]

048-11-25-08108

9. The death of the fifth of these figures was kept secret for fifteen years to allow for the construction of their official home, the Potala Palace. These figures are discovered by monks who are dispatched to see if children can recognize the objects of their predecessor. They are considered to be manifestations of the bodhisattva Avalokitesvara (AV-ah-loh-kit-ehs-VAH-ra). The fourteenth and current one is known as Tenzin Gyatso and was exiled from Lhasa to India. For 10 points, name this spiritual leaders of Tibetan Buddhism.

ANSWER: **Dalai Lamas**

015-11-25-08109

10. This song inspired one band member to worry that it was "too dance" because the drums "didn't go boom-boom bap, boom-boom bap." When it was released as a single, the cover art depicted a hand holding a frame in front of a scene featuring a girl in a dress in a field. This song mentions roads that are winding, lights that are blinding, and it begins "today is gonna be the day that they're gonna throw it back to you." This song's title follows the words "and after all, you're my." For 10 points, name this song off of (*What's the Story*) *Morning Glory*, a big hit for Oasis.

ANSWER: "**Wonderwall**"

026-11-25-08110

11. One description of the court of this leader is a *History* written in Greek by Priscus of Panium. A policy of appeasement was unsuccessfully used by Theodosius II to try and stop this ruler from invading his empire. This man fought a battle against forces under Theodoric I and Aetius on the Catalaunian Plains. This loser of the Battle of Chalons became sole ruler of his people after he arranged the murder of his brother Bleda. For 10 points, name this ruler who gained the title "Scourge of God" for his invasions into the Roman Empire while leader of the Huns.

ANSWER: **Attila** the Hun

023-11-25-08111

12. Deborah Jin used atoms of this element to create the first true fermionic condensate. Its citrate is used to control kidney stones, and the main electrolyte imbalance in people with kidney failure is an overabundance of this element. Its permanganate is a common oxidizing agent, and its beta-decay into argon makes it useful in radiometric dating. It's the primary ion found inside cells, and it's exchanged with sodium across neuron membranes. Its nitrate is found in fertilizers and saltpeter. For 10 points, name this element found heavily in bananas, with atomic number 19 and symbol K

ANSWER: **Potassium**

048-11-25-08112

13. During one mission of this name, cube-shaped CM canisters were adapted to fit round LM sockets using a device called the "mailbox." One mission of this name killed Edward White, Gus Grissom, and Roger Chaffee when it caught on fire. Jack Swigert, Fred Haise, and James Lovell were on another mission of this name when Oxygen Tank Number Two exploded, necessitating a trip around the dark side of the moon. For 10 points, name this series of missions, the eleventh of which landed Neil Armstrong on the moon.

ANSWER: **Apollo**

026-11-25-08113

14. In a work by this man titled for a line from *Twelfth Night*, the narrator is asked to write a biography of a deceased author based on the late Thomas Hardy. The narrator of a novel by this man is introduced to the painter Charles Strickland, who leaves his wife and Paris to go to Tahiti. That novel based on the life of Paul Gauguin is *The Moon and Sixpence*, and a semi-autobiographical novel by this author details the life of the clubfooted Philip Carey. For 10 points, name this British novelist, the author of *Of Human Bondage*.

ANSWER: William Somerset **Maugham**

002-11-25-08114

15. One character created by this author is a member of the volunteer fire department who accepts fifty-seven children as his heirs and gives away lots of money to the denizens of his Indiana town. Another of his characters nicknames his son Leon Trotsky, has his finger bitten off by Dwayne Hoover, and authors *Venus on the Half-Shell*. A third character created by this author meets Montana Wildhack on Tralfamadore after becoming unstuck in time. For 10 points, name this creator of Eliot Rosewater, Kilgore Trout, and Billy Pilgrim, the author of *Slaughterhouse-Five*.

ANSWER: Kurt Vonnegut Jr.

015-11-25-08115

1A. F equals negative kx according to which physical law, named for a British scientist, that deals with the displacement of springs?

ANSWER: Hooke's Law

1B. What field of mathematics, generally taken around the same time as multivariable calculus, studies vector spaces and matrices?

ANSWER: linear algebra

2A. What pre-Socratic was known as the "Weeping Philosopher" and noted that it is impossible to step into the same river twice?

ANSWER: Heraclitus

2B. What college basketball team led by freshman Jared Sullinger had an undefeated 2011 season broken by a February 12 loss at Wisconsin?

ANSWER: Ohio State

3A. This is a 10-second calculation question. How much wood could a woodchuck chuck if a woodchuck could chuck six logs a minute for two hours?

ANSWER: 720 logs

3B. This is a 10-second calculation question. What is the median of the following set: {1, 6, -1, 5, 10, 2, -9, -3, 8}?

ANSWER: 2

4A. What French Post-Impressionist painted *Mont Saint-Victoire*, *The Bathers*, *Woman in a Green Hat*, and lots of still lifes?

ANSWER: Paul Cézanne

4B. What Austrian economist warned that central planning inevitably leads to tyranny in *The Road to Serfdom*?

ANSWER: Friedrich von Hayek

5A. This is a 20-second calculation question. In simplest terms, what is the equation of the line perpendicular to $y = 7 - \frac{1}{3}x$ that passes through the point (2,1).

ANSWER: $y = 3x - 5$

5B. This is a 20-second calculation question. In simplest terms, what is the measure of the largest angle in a triangle if it is five times that of the smallest angle and the third angle measures 48 degrees?

ANSWER: 110 degrees

6A. Current president Mohamed Nasheed was elected on a platform of attempting to relocate this country's entire population, as rising sea levels threaten the 1200 islands which comprise it. Identify this archipelago found to the southwest of India and Sri Lanka in the Indian Ocean.

ANSWER: Republic of Maldives [or Dhivehi Raajjeyge Jumhooriyyaa]

6B. The Vickers test gives a value for what quality with rebound, indentation, and scratch varieties, the last of which is measured using the Mohs scale?

ANSWER: hardness

7A. This is a 30-second calculation question. You pay \$1 to guess the number on two straight rolls of a fair 20-sided die, and win \$100 for correctly guessing both rolls. How much money do you expect to lose per try, rounded to the nearest cent?

ANSWER: \$0.75 [or 75 cents]

7B. This is a 30-second calculation question. Find all values on the interval $-\pi$ to π , inclusive, such that cosine of $2x$ equals cosine of x .

ANSWER: $x = 0$, $2\pi/3$, and $-2\pi/3$ [do not accept or prompt on any answer that does not contain all three numbers]

8A. Name the type of algorithm used to order lists that has such varieties as insertion, selection, bubble, and quick.

ANSWER: sorting algorithm

8B. What composer wrote incidental music to *The Tempest* as well as works inspired by his homeland like *The Karelia Suite* and *Finlandia*?

ANSWER: Jean Sibelius

9A. What guide to writing by William Strunk and E. B. White states, "When a sentence is made stronger, it usually becomes shorter"?

ANSWER: *The* Elements of Style

9B. Name the group of unemployed who represented the Commonwealth of Christ when they marched in protest from Massillon, Ohio, to Washington, D.C., in 1894.

ANSWER: Coxey's Army

10A. What quantity is raised to the fourth power in the Stefan-Boltzmann equation, and requires 4.18 joules to be changed by one unit for a gram of water?

ANSWER: temperature

10B. What French author helped usher in Romanticism with poetry collections like *Les Contemplations* before writing the novel *Les Misérables*?

ANSWER: Victor-Marie Hugo

1. The initiative for this event came from Robert McFarlane, who acted in an effort to gain the freedom of hostages in Lebanon. The actions taken in this event were made illegal by the Boland Amendment and were investigated by members of the Tower Commission. This scandal led to the indictment of National Security Council members John Poindexter and Oliver North, as well as Secretary of Defense Caspar Weinberger. For 10 points, name this affair that came to light during the Reagan presidency, which involved the sales of arms to a Middle Eastern country being used to fund a group in Nicaragua.

ANSWER: **Iran-Contra** affair

023-11-25-08117

2. This decision overruled *Austin v. Michigan Chamber of Commerce* and parts of a case in which Mitch McConnell was one party. This decision extended the concept of "corporate personhood" to apply to First Amendment protection. It ruled portions of a bill co-sponsored by Russ Feingold and John McCain unconstitutional and that *Hillary: The Movie* should have been able to be shown within thirty days of the 2010 election. For 10 points, name this 2010 Supreme Court decision that struck down parts of the Bipartisan Campaign Finance Reform Act.

ANSWER: **Citizens United** v. *Federal Election Commission* [prompt on **Federal Election Commission**]

026-11-25-08118

3. One resident of this city likes to wear Oriental clothes in the morning and vacillates over whether or not to kill his father with a bomb made by his friends. The narrator of one story sees a painter murdered in a brothel and a lieutenant beaten for adultery on its central street, Nevsky Prospect. This title locale of an Andrey Bely novel is the home of the relentless detective Porfiry, who investigates the murder of the pawnbroker Alyona Ivanovna. For 10 points, name this site of Raskolnikov's fevered wanderings in Dostoyevsky's *Crime and Punishment*.

ANSWER: St. **Petersburg**

015-11-25-08119

4. One long poem by this author begins "This is the forest primeval" and tells a tale set in the Great Upheaval of the Acadians. This creator of Gabriel Lajeunesse wrote a sonnet in which the seasons are "changeless since the day she died," inspired by the death of his wife in a fireplace accident. He used the meter of the Finnish *Kalevala* to write a poem based on the fieldwork of Henry Rowe Schoolcraft. In that poem by this author, the title character loves Minnehaha. For 10 points, name this American poet who wrote *Evangeline* and *The Song of Hiawatha*.

ANSWER: Henry Wadsworth **Longfellow**

026-11-25-08120

5. One political cartoon that protested this act featured a snapping turtle grabbing onto a man's trousers while another man bemoans how the turtle "nicks 'em." The purpose of this act was seen as "entirely groundless" by the Secretary of the Treasury, Albert Gallatin. This act was created as a response to the Orders in Council and Continental System of two foreign nations. It was replaced two years later by the Non-Intercourse Act. For 10 points, name this 1807 act signed by Thomas Jefferson that responded to Britain and France by disallowing trade with any foreign countries.

ANSWER: **Embargo** Act

023-11-25-08121

6. One character in this play remembers entertaining strangers at a hotel called the Tarantula Arms. One of its plot points centers on the loss of the family estate of Belle Reve. One of its characters is called a “survivor of the Stone Age” after throwing a radio out a window when it interrupts his poker game with Mitch. A central character of this play declares “I have always depended on the kindness of strangers” after moving to the Elysian Fields with Stella and Stanley Kowalski. For 10 points, name this Tennessee Williams play about Blanche Dubois.

ANSWER: A *Streetcar Named Desire*

015-11-25-08122

7. This country’s Mount Yashkur is site of a mosque surrounded by courtyards called “ziyadas” and which is named for Ahmad Ibn Tulun. Its lush Philae Island contains a popular temple complex and is sometimes called its “pearl.” Its Saint Catherine’s Monastery is built into the side of its most famous mountain, and this country has temple complexes at Karnak and Luxor. This location of Mount Sinai has seen changes to its physical geography with the construction of the Aswan High Dam. For 10 points, name this middle-eastern country with capital at Cairo.

ANSWER: Egypt

015-11-25-08123

8. One character in this film reveals that his wife Nola left him after he started calling himself Burroughs and bought a restaurant called The Green Frog. That character mocks another for bragging about drinking water out of a horse track. In this film, Barry Pepper plays “Lucky” Ned Pepper, who works with the Josh Brolin played villain Tom Chaney. In this movie, Mattie Ross hires the Jeff Bridges played U.S. Marshall “Rooster” Cogburn to avenge her father’s death. For 10 points, name this 2010 Coen brothers remake of a John Wayne western.

ANSWER: *True Grit*

015-11-25-08124

9. One section of this organ contains Clara cells. One tumor of this organ comes from neuroendocrine cells named for Feyrter and has an oat-cell appearance, while adenocarcinomas of this organ stain positive with TTF-1. Release of vasoactive mediators in this organ results in ARDS, and this organ is also the site of silicosis, berylliosis, and ferruginous bodies resulting from asbestos exposure. Cancers of this organ are divided into small-cell and non-small-cell varieties, and in humans one half of this organ has three lobes while the other has two. Spirometry is used to measure functional capacity in this organ, which turns black in people exposed to coal dust. For 10 points, name this organ which contains alveoli and is damaged by smoking, used to exchange air.

ANSWER: lungs

048-11-25-08125

10. Hymenaios was the Greek god of these events. The death of the fifty sons of Aegyptus occurred on the day of one of these events. The Lapiths drove the Centaurs from Mount Pelion to Aethicia after a great battle at one of these events. At Loki’s suggestion, Thor pretends to participate in one of these events to retrieve Mjollnir from Thrym. Another of these events is marred when an uninvited Eris throws the Apple of Discord, prompting the Judgment of Paris and the Trojan War. For 10 points, name these events which occur between Thetis and Peleus and other couples.

ANSWER: weddings

015-11-25-08126

11. In one poem by this writer, a speaker tells the title figure that "ten bucks" is "more'n I'll pay you till you fix this house up new." That piece by this poet is "The Ballad of the Landlord." This poet wrote "tomorrow, I'll be at the table when company comes" in "I, Too, Sing America." Another poem by this man mentions how the speaker heard a man "down on Lenox Avenue the other night ... droning a drowsy syncopated tune." For 10 points, name this African-American poet of such poems as "Theme for English B," "Harlem," and "The Weary Blues."

ANSWER: James Mercer Langston **Hughes**

023-11-25-08127

12. Brushfield spots are more common in sufferers of this disease, many of whom also suffer from duodenal atresia. About 20% of people with it also suffer from transient leukemia, and they have a higher incidence of ALL and AML. The mechanism of this disease may partially be due to overexpression of miR-155 and miR-802 resulting in decreased MeCP2 expression and dysregulation of NFAT. The increased development of Alzheimer's in people with this disease is due to overexpression of APP and SOD1. This condition can result from a Robertsonian translocation involving chromosome 14, and sufferers have a small chin, large tongue, an extra fold in the eyelid, and an IQ in the 50s. For 10 points, name this genetic condition characterized by an extra chromosome 21.

ANSWER: **Down** syndrome [or **Trisomy 21** before "21" is read]

048-11-25-08128

13. In the Berlin and Kay model, this is the seventh color term that emerges in an evolving language, immediately after "blue." In Czech, objects of this color are described as "hnedy" and in Mandarin, this English word is "bulang." It is "khoom" in Hebrew and "ghahve ee" in Persian. In French, this English word is "chatain" when describing hair but "marron" in most other situations. In English, this color can refer to certain "shirts" worn by Nazis or to astronomical objects intermediate in size between planets and stars. For 10 points, identify this color that sugar acquires when mixed with molasses.

ANSWER: **brown**

019-11-25-08129

14. This novel includes a search for the iyi uwa, a sacred stone that links the ogbanje Ezinma with the spirit world. In this novel, the District Commissioner wrote a study of the Igbo people entitled "The Pacification of the Primitive Tribes of the Lower Niger." The protagonist's son Nwoye is converted to Christianity in this novel, which describes the colonization of Umuofia. For 10 points, name this novel in which Okonkwo hangs himself, a work by Chinua Achebe.

ANSWER: ***Things Fall Apart***

030-11-25-08130

15. The Dess-Martin reagent contains this element attached to oxygen groups. This element forms the central atom of the acid used alongside the Schiff reagent in the PAS stain, and in another procedure this element is used as a mordant and followed up by a safranin counterstain. This element is also used to test for starch in solution, and deficiencies result in goiters. For 10 points, name this element, a heavy halogen whose solutions are usually purple, with atomic number 53 and symbol I.

ANSWER: **iodine**

048-11-25-08131

1. This country is the site of a gigantic puppy crafted from flowers by Jeff Koons. A museum in this country is the permanent home of *The Garden of Earthly Delights* and *Las Meninas*. A composer from this country wrote the ballet *Love the Magician* and the nocturne *Nights in the Garden of Spain*. This country is home to the Parc Guell and the Church of the Holy Family, the masterpieces of Antoni Gaudi. For 10 points, name this location of the Prado Museum and the Guggenheim Bilbao.

ANSWER: Spain

015-11-25-08132

2. One character in this story resembles the story's speaker when he is asked to heave a door off its hinges. Another character in this story visits the blacksmith Jarvis, where he borrows from him a coulter. That character is described as being "some deal squeamish of farting" and is named Absalom. The student Nicholas tricks the carpenter John into thinking there is a great flood coming, which is part of his ploy to get in bed with Alison. For 10 points, name this story followed by "The Reeve's Tale," a ribald section of Geoffrey Chaucer's *The Canterbury Tales*.

ANSWER: "The Miller's Tale"

023-11-25-08133

3. One reaction used to produce these compounds has a modification that uses Bestmann's reagent, and which classically uses dimethyl diazomethyl phosphonate, named for Seyferth and Gilbert, while more common methods include the Corey-Fuchs reaction. Terminal ones have a pK_a around 25, and this functional group is hydrogenated by sodium metal in liquid ammonia into trans-alkenes. This functional group has a bond angle of 180 degrees because the carbons involved in it are sp-hybridized. For 10 points, name this functional group which has a carbon-carbon triple bond.

ANSWER: alkynes

048-11-25-08134

4. This man argued against excess thrift as destroying the motive to produce in a book that shared a title with a David Ricardo work, *Principles of Political Economy*. This man's 1796 pamphlet "The Crisis" supported the Poor Laws, though he later argued that they limited the mobility of labor, and this man encouraged workhouses in which "fare should be hard." In this man's most famous work, he argued that vice, misery, and self-control could regulate the phenomenon that he believed prevented the future improvement of society. For 10 points, name this English economist who postulated that population growth will always tend to outrun the food supply and wrote *An Essay on the Principle of Population*.

ANSWER: Thomas Malthus

030-11-25-08135

5. The Lion Mound marks the site of this battle, which was fought two days after an engagement at Ligny. This battle probably began with an engagement at Hougomont. The losing forces in this battle fell apart after the capture of Placenoit. Gebhard von Blucher was one victorious commander at this battle, which ended the Hundred Days and resulted in its loser's exile to Saint Helena. For 10 points, name this victory for the Duke of Wellington, an 1815 battle in Belgium that saw the final downfall for Napoleon Bonaparte.

ANSWER: Battle of Waterloo

026-11-25-08136

This is a calculation question. In simplest terms, what is the square of quantity $3x^2 + 50$ end quantity?

ANSWER: $9x^4 + 300x^2 + 2500$

026-11-25-08137

Name the author of *The Sot-Weed Factor* and *The Floating Opera*.

ANSWER: John Simmons **Barth**

026-11-25-08137