

1. In these objects, FUN effects can be observed, which are a fractionation class of refractory inclusions or CAI. Oxygen isotope levels in the Allende one were used to discriminate between different models of the solar system's formation. The largest class of these are chondrites, which is a subclass of the stony type of them. One called ALH 84001 that was found in Antarctica was part of a 1990's argument for life on Mars. For 10 points, name these rocks that fall from outer space and survive the collision.

ANSWER: meteorites

001-10-24-06101

2. Civil War generals from this state included Joseph Hooker. This state's 54th infantry regiment was led by Robert Shaw and composed mainly of African-Americans. This state was home to the asylum reformer Dorothea Dix and the public schooling innovator Horace Mann. During one battle in this modern day state, William Prescott is said to have ordered, "Don't fire until you see the whites of their eyes." For 10 points, name this state which saw the "shot heard round the world" at Lexington and Concord.

ANSWER: Massachusetts

015-10-24-06102

3. In an autobiographical novel, this author recalls working at an optical shop, where Olin manipulates him into boxing his coworker, Harrison. One of this author's characters carries a drunken woman to her room, but accidentally smothers her to avoid being noticed by her blind mother. That character is executed for killing Mary Dalton and his girlfriend Bessie. For 10 points, name this African-American author of *Black Boy* who created Bigger Thomas in *Native Son*.

ANSWER: Richard Wright

080-10-24-06103

4. A nearly massless one of these objects is used to hold the weights for an Atwood machine. One mass pulls another across a table using the horizontal version of this device. A single fixed-axis one has a mechanical advantage of 1, while adding more of them will often increase the mechanical advantage if friction is ignored. For 10 points, name this simple machine that uses an axle and a rope to lift objects.

ANSWER: pulley [or sheave]

093-10-24-06104

5. This language's alphabet contains five letters that must appear in "sofit" form when they are at the end of a sentence. This language uses a series of diacritical marks that render as dots called niqqud. A writer given the title "book seller" was the first to use this language to describe everyday events in literature. The revival of this language coincides with the Second Aliyah, and it replaced languages like Ladino, Bukhori, and Yiddish. For 10 points, name this modern language revived by Eliezer Ben-Yehuda, spoken in Israel.

ANSWER: Hebrew

026-10-24-06105

6. The protagonist of one of this man's works finds several identical pictures of a colonel and attempts to find the title character, who murdered his lover Dany. This author of *The Killer* wrote about two elderly characters who jump out of a window near the end of his play *The Chairs*. Daisy leaves Berenger to join the title animals in another play by this author, who also wrote a play about an odd dinner between the Smiths and Martins. For 10 points, name this Romanian-born author of *Rhinoceros* and *The Bald Soprano*.

ANSWER: Eugène Ionesco [or Eugen Ionescu]

083-10-24-06106

7. This artist used a Claude Lorrain painting as the basis for his *Dido Building Carthage*. Spectators on the banks of the Thames watch a blazing fire in his *The Burning of the House of Lords and Commons*. This artist showed a tugboat hauling away a British naval vessel that had served in the Battle of Trafalgar. Another work by him supposedly depicts a rabbit crossing in front of an extremely obscure and clouded train. For 10 points, name this painter of the works *The Fighting Temeraire* and *Rain, Steam and Speed*.
ANSWER: Joseph Mallord William **Turner**

064-10-24-06107

8. This character discovers that John Openshaw was murdered by the Ku Klux Klan in "The Five Orange Pips." In another work, this man proves that Jack Stapleton has been conniving to obtain the title family's fortune. He often infuriates Inspector Lestrade and the other detectives of Scotland Yard. This protagonist of *The Hound of the Baskervilles* is the nemesis of Professor Moriarty. For 10 points, name this Arthur Conan Doyle creation, a detective who lives on Baker Street with his assistant, Watson.
ANSWER: Sherlock **Holmes** [or **Sherlock Holmes**]

080-10-24-06108

9. This man was elected to Congress with the slogan "Congress needs a tail-gunner." He gained notice after a speech in Wheeling, West Virginia. He was criticized for his attack on the clerk Annie Lee Moss on the program *See It Now* by Edward R. Murrow. Along with attorney Roy Cohn, he was discredited during the 1954 Army hearings, in which Joseph Welch asked him "Have you no sense of decency, sir?" For 10 points, name this Wisconsin Senator who led witch-hunts against supposed Communists in the 1950s.
ANSWER: Joseph Raymond **McCarthy**

082-10-24-06109

10. After this man was left by his wife Marie Powell, he argued for the legality of divorce in a series of four pamphlets. This author wrote a closet drama about a man who had been blinded and had his hair cut after being captured by Philistines. This author of *Samson Agonistes* attacked censorship in the pamphlet *Areopagitica*. He included a figure who believes it is "Better to reign in Hell than serve in Heaven" in an epic poem about the fall of Adam. For 10 points, name this author of *Paradise Lost*.
ANSWER: John **Milton**

015-10-24-06110

11. While working with Simon Kuznets, this man performed a study that found that the high barriers to entry of the American Medical Association was a cause of doctors having a higher income than other professions. He questioned the Phillips curve as part of his critique of Keynesianism. He collaborated with Anna Schwartz on *A Monetary History of the United States*. This monetarist co-authored *Free To Choose* with his wife Rose. For 10 points, name this Chicago school economist who won the 1976 Nobel Prize
ANSWER: Milton **Friedman**

027-10-24-06111

12. Entrepreneur Jesse Hawley pressed for the creation of this structure. The *Seneca Chief* made the first end-to-end trip on this landmark. Its western end is the "Commercial Slip". This project across the Mohawk Valley was approved in 1817 at a cost of seven million dollars. It originally had 83 locks. It was the first navigable water route between the Midwest and the Eastern seaboard. For 10 points, name this man-made waterway championed by DeWitt Clinton and opened in 1825, which runs from Albany to Buffalo.
ANSWER: **Erie Canal**

082-10-24-06112

13. This author described figures as "naked and bald in their furs" in her poem "The Munich Mannequins." Another of her poems uses imagery from the Holocaust to address the title figure called "Daddy." Those poems were collected in *Ariel*, which was published nine years after she married poet Ted Hughes and two years after this author committed suicide. This author wrote a novel that details Ester Greenwood's struggle to remain sane. For 10 points, name this American writer who was the author of *The Bell Jar*.

ANSWER: Sylvia **Plath**

083-10-24-06113

14. He argued that restitutive laws characterize a society exhibiting organic solidarity, as opposed to repressive laws matching to mechanical solidarity. He outlined a way to study social facts in one work. In another, he outlined how people suffering from anomie can perform an action of self harm for different reasons than someone whose reasons are fatalistic, egoistic, or altruistic. For 10 points, name this French sociologist who wrote *The Rules of the Sociological Method*, *Suicide*, and *The Division of Labor in Society*.

ANSWER: Émile **Durkheim**

027-10-24-06114

15. This battle was preceded by the landing at Pevesney, and it took place at Senlac Hill. This battle was preceded by the defeat of Harald Hardrada at Stamford Bridge. According to the Bayeux Tapestry, one commander at this battle died after getting struck in the eye by an arrow. Two months after this battle, the victor was crowned king in London. For 10 points, name this 1066 battle in which the forces of Harold II were defeated by the Norman forces under William the Conqueror.

ANSWER: Battle of **Hastings**

030-10-24-06115

1A. The letter "S" often represents what quantity, which measures the chaos of a system?

ANSWER: **entropy**

1B. Which poetic meter, whose pentameter form was used in Shakespeare's sonnets, consists of an unstressed syllable followed by a stressed one?

ANSWER: **iambic**

2A. The first instrumental song to sell a million copies of sheet music was what Scott Joplin composition, named for a social club in Sedalia, Missouri?

ANSWER: the **Maple Leaf Rag**

2B. What element with atomic number three is used in batteries and anti-depressants?

ANSWER: **lithium**

3A. This is a 10-second calculation question. What is the ratio of the hypotenuse of a triangle with legs length 3 and 4 to the hypotenuse of a triangle with legs length 7 and 24?

ANSWER: **1:5**

3B. This is a 10-second calculation question. What is the geometric mean of the set {5, 20}?

ANSWER: **10**

4A. What term is used for the speed needed by an object to break out of a gravitational field?

ANSWER: **escape velocity**

4B. Name the literary character who exclaims "God bless Captain Vere!" as he is being executed aboard the *Indomitable* for killing Claggart.

ANSWER: Billy **Budd** [or **Billy**]

5A. This is a 20-second calculation question. What is quantity $a^2 + 2ab + b^2$ end quantity multiplied by quantity $a + b$ end quantity?

ANSWER: **$a^3 + 3a^2b + 3ab^2 + b^3$**

5B. This is a 20-second calculation question. Jonathan orders 30 cheese pizzas, 8 pepperoni pizzas and 7 vegetarian pizzas. If Jonathan picks 2 pizzas to eat at random without replacing them, what is the probability of both pizzas being cheese?

ANSWER: **29/66**

6A. In geometry, what word is used to define a line segment from one vertex of a triangle to the opposite side so that the line segment is perpendicular to the side?

ANSWER: **altitude**

6B. What African dictator renamed the DRC "Zaire" while serving as that country's leader for 32 years?

ANSWER: **Mobutu** Sese Seko Nkuku Ngbendu wa Za Banga [or Joseph-Desire **Mobutu**]

7A. This is a 30-second calculation question. In terms of x , what is the difference between the volume of a square pyramid with base side length $x + 1$ and height x and the volume of a square pyramid with base side length $x + 2$ and height $x + 1$?

ANSWER: **$x^2 + 7/3x + 4/3$**

7B. This is a 30-second calculation question. What is quantity 512 times 512 end quantity divided by quantity $512 + 512$ end quantity?

ANSWER: **256**

8A. What artist married photographer Alfred Stieglitz and is known for her paintings of cow skulls and desert flowers?

ANSWER: Georgia **O'Keeffe**

8B. In 1796, he inoculated a child, James Phipps, with the product of Sarah Nelmes's cowpox lesions. Name this English physician, who thereby proved the feasibility of vaccination against smallpox.

ANSWER: Edward **Jenner**

9A. What politician was widely mocked by late night shows for using a giant gavel at his induction as Speaker of the House?

ANSWER: John Andrew **Boehner**

9B. Lionel Tertis developed a new version of what string instrument found between the violin and cello in the violin family?

ANSWER: **viola**

10A. What chart shows all possible true-or-false values for a compound proposition, such as "p or q," based on the possible combinations of true-false values for each component of the proposition?

ANSWER: a **truth table**

10B. Adherents of what Indian religion venerate ten Gurus, including Guru Nanak, and wear daggers and turbans?

ANSWER: **Sikhism**

1. This man gained prominence while questioning Jimmy Hoffa and the Teamsters Union about their use of Union funds. During the Cuban Missile Crisis, he closely advised the president while serving as the Attorney General. His run for the Democratic nomination in the 1968 presidential election was cut short in the Ambassador Hotel after the Palestinian nationalist Sirhan Sirhan assassinated him. For 10 points, name this brother of John F. Kennedy.

ANSWER: Robert Fitzgerald Kennedy [or Bobby Kennedy; or RFK; prompt on Kennedy]

080-10-24-06117

2. In Orphic tradition, this god is known as Phanes and is called the firstborn. The story of this male god and his love is first told in *The Golden Ass*, by Lucius Apuleius (app-uh-LAY-us). In that story, this figure leaves his lover after she drops oil on him while trying to see his face. This figure fathers Hedone (hud-OWN-ay), goddess of pleasure, with his wife, the mortal Psyche. For 10 points, name this son of Aphrodite and Ares, a love god depicted with wings and a bow.

ANSWER: Eros [or Cupid]

080-10-24-06118

3. Mucins in digestive tracts interact regularly with this structure. This structure is referred to as the sarcolemma in muscle cells. Cholesterol molecules embedded in this structure regulate its mobility. Proteins embedded in this structure include the sodium-potassium pump. It is described by the fluid mosaic model. For 10 points, name this layer made of phospholipids that separates the cytosol of a cell from its environment.

ANSWER: plasma membrane [or cell membrane; prompt on membrane; do not accept "cell wall"]

085-10-24-06119

4. One of these objects could not be moved without the help of the giantess Hyrrokin. Another one of them made of fingernails will appear at Ragnarok; those objects are Hringhorni and Naglfar. The Sons of Ivaldi made another one of these objects for Freyr which could be folded and put in a pocket and float through the air called Skidbladnir. In Greek myth, one of these vessels was made out of sacred oak, transported Jason to retrieve the Golden Fleece, and was named the Argo. For 10 points, name this form of water transportation.

ANSWER: ships [or boats]

083-10-24-06120

5. An October 2010 report noted that the Furtwängler Glacier near the summit of this mountain is rapidly melting. Home to the Chagga people, this mountain is known for Gilman's Point, a common stopping point located on the rim of a volcanic crater. Its actual summit of Uhuru Peak can be reached by a variety of trails, many of which are accessible to those without climbing equipment. This mountain's name likely comes from Swahili. It is located in Tanzania. For 10 points, name this highest mountain in Africa.

ANSWER: Mount Kilimanjaro

083-10-24-06121

6. One novel by this author has a love interest who might be Joaquin Murieta. A sequel to that novel is narrated by Aurora and follows Clara, a clairvoyant mute who leaves notebooks her granddaughter Alba finds in another work. Her works *Daughter of Fortune* and *Portrait in Sepia* can be read as part of a trilogy following the del Valles. One of her works chronicles life at Tres Marias, the Trueba family hacienda, before and after a military coup. For 10 points, name this Chilean author of *The House of the Spirits*.

ANSWER: Isabel Allende Llona

003-10-24-06122

7. This word appears twice in the name of a band whose first album is *Downtown Battle Mountain*. The lines "I'm two quarters and a heart down" and "we're falling apart to halftime" are in a song titled for this word twice. This activity appears in the title of a song featuring Colby O'Donis that was the first single off *The Fame*. That song's speaker asks "what's the name of this club" before telling the listener to "just" do this activity. For 10 points, name this word in the titles of songs by Fall Out Boy and Lady Gaga.

ANSWER: **dance** [or "**Just Dance**"; or "**Dance, Dance**"; or **Dance Gavin Dance**]

083-10-24-06123

8. The most recent country to adopt this item, on January 1, 2011, was Estonia. Paul Krugman called this item "doomed" in an article which compared Ireland's financial policy to Iceland, which does not use this and was free to devalue. The Maastricht Treaty required the adoption of this item for most signatories except for Denmark and England, the latter of which still uses the pound. For 10 points, name this currency used in a namesake "zone" consisting of seventeen members of the European Union.

ANSWER: the **euro**

082-10-24-06124

9. Though not lithium or potassium, this element is commonly used with an alcohol to reduce ammonia in the Birch reduction. This element's carbonate is produced by the Solvay process and is called soda ash. This element's hydroxide, a common ingredient of soap, is called lye. Burning bright yellow in a flame test, this element has a bicarbonate called baking soda and a chloride called table salt. For 10 points, name this element symbolized Na.

ANSWER: **sodium** [or **Na** before it is read]

079-10-24-06125

10. One ruler of this empire was a son of Amyntas III (uh-MIN-tuss) who defeated the Sacred Band of Thebes at Chaeronea (kair-uh-NEE-uh) and created the League of Corinth. That man's son led this empire in conquering Punjab with a victory at the Hydaspes ("high"-DASS-pee-z) River. This empire's forces conquered Persia after beating Darius III at Issus and Guagamela (GWAH-guh-mell-uh) with the general Ptolemy (TOL-uh-mee). For 10 points, name this empire led by Philip II and Alexander the Great.

ANSWER: **Macedonia**

079-10-24-06126

11. In one episode, this character gets his own radio show, *The Lunch Hour*. In another episode, he pitches a show to CBS that is ruined by lead actor James Woods. Before she marries Derek, Jillian is the girlfriend of this character, who is often forced to do things after being threatened with a vacuum. He co-stars in the "Road to" episodes with his best friend, a giant-headed infant bent on destroying the world. For 10 points, name this talking dog who lives with Peter, Stewie, and the rest of the Griffin family on *Family Guy*.

ANSWER: **Brian** Griffin [prompt on **Griffin**]

083-10-24-06127

12. This politician won a landslide general election over Michael Foot and David Steel thanks to a split between the SDP-Liberal Alliance and the Labor Party. This Prime Minister was targeted in a bombing of the Brighton Hotel, and was replaced by John Major after an unpopular poll tax called the Community Charge. Other actions by this leader included bringing Britain into the Gulf War and invading the Falklands Islands. For 10 points, name this Conservative Prime Minister of Britain known as the Iron Lady.

ANSWER: Margaret **Thatcher**

015-10-24-06128

13. This school's football team is coached by David Cutcliffe and plays its home games at Wallace Wade stadium. This school's women's basketball team is coached by Joanne McCallie. The men's team has had National Players of the Year such as Elton Brand, Shane Battier, and J.J. Redick. That team's coach led the 2008 men's Olympic team before leading this school to a national championship in 2010. For 10 points, name this ACC school whose men's basketball team is coached by Mike Krzyzewski (shuh-SHEF-skee).
ANSWER: **Duke** Blue Devils [or Duke **Blue Devils**]

081-10-24-06129

14. The entire mass of this organ is sometimes referred to as the corpus vesicae fellae. The Sphincter of Oddi and the hormone CCK control the release of products from the pancreas and this organ. One of the main causes of jaundice is the creation of a certain "stone" in this organ. This organ is removed during a cholecystectomy and stores a product that is released into the duodenum of the small intestine during digestion. For 10 points, name this organ that stores bile produced by the liver.

ANSWER: **gallbladder**

064-10-24-06130

15. This author wrote about some lighthouse workers who discover a sea monster is attracted to the title noise in "The Fog Horn." A computer maintains a post-apocalyptic house in his story "There Will Come Soft Rains." He wrote about the disastrous effect of stepping on a butterfly in the past in "A Sound of Thunder." In a novel by this author, a Mechanical Hound hunts the fireman Guy Montag whose job involves burning books. For 10 points, name this author of *Fahrenheit 451*.

ANSWER: Ray Douglas **Bradbury**

015-10-24-06131

1. The Muskegon River flows into this lake. Traverse City is on this lake's coast. The Beaver Island archipelago lies at the northern end of this lake. Ports on this lake include Benton Harbor, Waukegan, and Racine. The Straits of Mackinac (MACK-kuh-naw) connect this lake to the rest of the Great Lakes. Green Bay is an inlet on this lake, which is the only Great Lake entirely within the United States. For 10 points, name this lake connected to Lake Huron and bordered by Chicago.

ANSWER: Lake **Michigan**

027-10-24-06132

2. When formed underneath glaciers, these landforms can cause devastating floods known as jokulhaups (yoe-kull-howps). A pyroclastic flow may stem from these landforms, which can excrete material known as pahoehoe (pa-HOY-hoy) and aa (ah-ah). Broadly, these landforms are classified into composite, shield, and cinder types. For 10 points, name these landforms, prominent around the Earth's "ring of fire," which are formed where magma can reach the earth's surface.

ANSWER: **volcanoes**

026-10-24-06133

3. Popular meeting spots in this city included the Dingo Bar and Sylvia Beach's book store. In a novel set in this city, a law student befriends a man who impoverishes himself in giving his daughters a better life. In another novel, a fanatical police inspector drowns himself in this city after his life is saved by the criminal Jean Valjean. This setting of *Father Goriot* is home to the gypsy Esmeralda and the deformed Quasimodo in another novel. For 10 points, name this setting of *Les Miserables* and *The Hunchback of Notre Dame*.

ANSWER: **Paris**

015-10-24-06134

4. This man attacked the lack of quality Southern literature in his essay "The Sahara of the Bozart." This man claimed that American spelling is better than British spelling and pointed out errors in American speech such as double negatives and misusing adjectives as adverbs in his book *The American Language*. A founder and editor of the *American Mercury*, this man coined the term "booboisie." For 10 points, name this *Baltimore Sun* journalist who coined the term "Monkey trial" while covering the Scopes Trial.

ANSWER: Henry Louis **Mencken**

030-10-24-06135

5. Examples of this type of structure are the hypophyseal and hepatic portal varieties. The presence of subcutaneous fat in these structures that absorb low-frequency light results in their coloration. These structures are less muscular than their counterparts and prevent backflow by the presence of valves. Though not arteries, the umbilical and pulmonary varieties of these structures carry blood away from the heart. For 10 points, name these blood vessels that appear blue and normally carry deoxygenated blood to the heart.

ANSWER: **veins**

020-10-24-06136

Name the International Style skyscraper that uses a straightforward rectangular prism clad in glass and bronze and was designed as a corporate headquarters by Ludwig Mies van der Rohe (meece VAN der row) and Philip Johnson.

ANSWER: **Seagram Building**

020-10-24-06137

Find the y-coordinate of the intersection of the graphs $y = \cos^2(x)$ and $y = -(9x)/(2\pi)$.

ANSWER: **3/4**

020-10-24-06137