



1. This is the largest city within the Keihin Industrial Zone. This city's namesake bay is enclosed by the Miura and Boso peninsulas. The Kyo and New Bridges are the borders of this city's Ginza shopping district, and this city originated on the Sumida estuary. This city's National Museum of Western Art was designed by Le Corbusier and is located in Ueno Park, which is noted for its cherry blossom festival. The city of Kawasaki is located between this city and another city in this city's metro area, Yokohama. For 10 points, name this capital city of Japan.

ANSWER: **Tokyo**

030-12-71-07101

2. In June 1976, this nation faced a series of demonstrations in response to rising food prices. Tens of thousands of nationals from this country were massacred in 1940 at Katyn Forest. The Round Table Talks in this country allowed for the communist regime to be replaced by a new coalition, which was led by a trade union that began in a shipyard in Gdansk. For 10 points, name this country home to Lech Walesa's Solidarity movement that was the first to be invaded by Nazis during World War II.

ANSWER: Republic of **Poland** [or Rzeczpospolita **Polska**]

020-12-71-07102

3. This composer used two sopranos in an operatic love duet depicting Christ as the bridegroom of the church in the "Christe Eleison" movement of a work dedicated to Augustus III of Poland. He wrote a collection of preludes and fugues for the solo keyboard in all 24 major and minor keys. This father of the composer Carl Philip Emanuel wrote the aforementioned *Mass in B Minor* and *Well-Tempered Clavier*. For 10 points, name this composer of the ominous-sounding organ piece *Tocatta and Fugue in D minor*.

ANSWER: **J. S. Bach** [or **Johann Sebastian Bach**; prompt on **Bach** and **J. Bach**]

020-12-71-07103

4. This poet concluded, "Ah, what sagacity perished here!" in the first version of a poem about "the meek members of the resurrection," who are "safe in their alabaster chambers." In another poem by this writer, the speaker recalls "the day I first surmised the horses' heads were toward eternity," after stating how the title figure "kindly stopped for me." For 10 points, a poem beginning, "Because I could not stop for Death" was written by what reclusive American poet?

ANSWER: Emily **Dickinson**

014-12-71-07104

5. The proteins noggin and chordin inhibit a "morphogenic protein" named after this substance. When this substance is formed, younger cells gather along its epiphysis while older cells occupy the diaphysis in the middle. The two types of tissue found in these substances include the "cancellous" type, which is spongy, and the more rigid "compact" type. The interior of these substances contain Haversian canals. Certain "clasts" break down this substance and certain "blasts" promote their formation. These substances serve as reserves for calcium in the body and gradually replace cartilage. For 10 points, name these component parts of mammalian endoskeletons.

ANSWER: **bones**

020-12-71-07105

6. Adolphus Slade led one side in this conflict's Battle of Sinope. During this conflict, a woman known as the "lady of the lamp" rose to prominence; that woman was Florence Nightingale. This war included the Siege of Sevastopol and the Battle of Balaclava, which included the Charge of the Light Brigade. For 10 points, name this war lasting from 1853 to 1856, in which Britain, France, and the Ottoman Empire defeated Russia in fighting that took place primarily on the namesake peninsula.

ANSWER: **Crimean** War

189-12-71-07106

7. Some organisms within this phylum produce an antibacterial compound called ageliferin, and members of this phylum can be classified as asconoids, leuconoids, or syconoids. Some organisms within this phylum produce spicules, and choanocytes within these organisms use flagella to regulate water flow. Members of this phylum possess an internal jelly-like matrix called mesohyl, and they lack a nervous or circulatory system. For 10 points, identify this phylum made up of porous organisms sometimes known as sponges.

ANSWER: **porifera** [accept **sponges** before it's read]

189-12-71-07107

8. This poem compares its subject to "a poet hidden in the light of thought" and "a high-born maiden in a palace tower, soothing her love-laden soul in secret hour." The speaker of this poem notes, "I have never heard praise of love or wine that panted forth a flood of rapture so divine." The speaker of this poem asks the addressee to "teach me half the gladness that thy brain must know," and begins by crying, "Hail to thee, blithe spirit!" For 10 points, name this Percy Bysshe Shelley poem addressing a certain bird.

ANSWER: "**To a Skylark**"

014-12-71-07108

9. This field's contributions to evolutionary biology include formalizing a situation in which no mutant can invade a population, "evolutionary stability." A thought experiment in this field hinges on two suspects who can either "defect" to police or "cooperate;" that is the "prisoner's dilemma." Developed by von Neumann and Morgenstern, it has found applications in economics, like the Nash Equilibrium. For 10 points, name this field of mathematics used to optimize strategies for situations like poker and chess.

ANSWER: **game** theory

080-12-71-07109

10. The founder of this empire died from fasting after converting to Jainism, and was advised early in his reign by the author of the *Arthashastra*, Kautilya. Megasthenes was a Greek visitor to the court of this empire's ruler Bindasura. Another emperor from this dynasty, whose capital was at Pataliputra, espoused Buddhist principles after conquering Kalinga; that ruler of this empire also released thirty-three Rock Edicts. For 10 points, name this Indian empire ruled by Ashoka and founded by Chandragupta.

ANSWER: **Mauryan** Empire

192-12-71-07110

11. In 1951, this politician founded a company with John Overbey. When asked about the Iran-Contra affair, this man said he was "out of the loop." In 1976, Gerald Ford appointed this politician head of the CIA. In a presidential election, this man defeated Michael Dukakis on a ticket with Dan Quayle. As President, he launched Operation Desert Storm in response to Saddam Hussein's invasion of Kuwait in the Persian Gulf War. For 10 points, name this one-term President after Ronald Reagan.

ANSWER: George **Herbert Walker Bush** [or **Bush 41**; or **Bush the Elder**; prompt on George **Bush**; do not accept "George Walker Bush"]

014-12-71-07111

12. One portion of these structures includes proteins such as ameloblastins and tuftelins. The gingiva are located around these structures, which are partially formed by dentin and pulp. Examples of these structures include incisors, and sharks grow a new set of these structures every two weeks. For 10 points, identify these structures whose decay is prevented by proper fluoride usage, whose "wisdom" variety is removed from the mouths of adults.

ANSWER: **teeth** [accept clear equivalents; accept specific types of teeth such as **molars** before "incisors"]

189-12-71-07112

13. In one work set in this state, Dexter Green ultimately does not end up with Judy Jones, a woman he met at the Sherry Island Golf Club. That story set in this state is "Winter Dreams," which was written by a native of this state. This state is also the setting for a work in which Carol Kennicott unsuccessfully attempts to put on a production of *Androcles and the Lion*. For 10 points, name this Great Lakes state in which Sinclair Lewis's novel *Main Street* is set in the fictional town of Gopher Prairie, which is also the homestate of Jay Gatsby and his creator, F. Scott Fitzgerald.

ANSWER: **Minnesota**

030-12-71-07113

14. This organization took its name from a speech by Isaac Barre. A Copperhead organization known as the Knights of the Golden Circle changed its name to the "Order of" of this group and was led by Clement Vallandigham during the Civil War. Isaac Sears led members of this group in a skirmish in Golden Hill in New York City, and members of his group burned the HMS *Gaspee*. This organization was started by Samuel Adams. For 10 points, name this organization whose members participated in the Boston Tea Party.

ANSWER: **Sons of Liberty**

030-12-71-07114

15. This force can be derived mathematically with the Einstein Field Equations, which describe how an object causes a curvature in spacetime. A constant associated with this force was first accurately derived from an experiment that used a torsion balance and was conducted by Henry Cavendish. This force is always attractive. An inverse-square law for it was presented in the *Principia*. For 10 points, identify this force whose universal law was originally formulated by Sir Isaac Newton.

ANSWER: **gravity**

066-12-71-07115



1A. What weaver from Greek mythology was turned into a spider by Athena after creating a tapestry depicting the frailties of the gods?

ANSWER: **Arachne**

1B. Name this portion of a microscope usually directly above microscope slide which magnifies the sample by up to 100 times.

ANSWER: **objective** lens

2A. Name the logical fallacy in which a proposition relies on an implicit, unsupported premise as proof of its own truth.

ANSWER: **begging the question** [or word forms; or **petitio principii**; or **hysteron proteron**]

2B. With a capital S, Sie (SEE) can be a formal way of saying this word in German, which informally is du (DEW).

ANSWER: **you**

3A. The Scottish archer-princess Merida was the protagonist of what production studio's most recent film, *Brave*?

ANSWER: **Pixar** Animation Studios

3B. This is a 20-second calculation question. A rectangle has one side of length 12 and a diagonal of length 13. Find the perimeter of the rectangle.

ANSWER: **34**

4A. This is a 20-second calculation question. Calculate the value of sine squared of 60 degrees plus cosine squared of 60 degrees plus tangent squared of 60 degrees.

ANSWER: **4**

4B. What painting was defaced by Marcel Duchamp in L.H.O.O.Q. and is famous for its central subject's mysterious smile, depicted by Leonardo da Vinci?

ANSWER: **Mona Lisa** [or *La Gioconda*]

5A. What Shakespeare play ends with the title character killing Laertes and Claudius?

ANSWER: **Hamlet**

5B. What element did Joseph Priestley call "dephlogisticated air" that he found allowed candles to burn brighter and mice to live longer when put in containers of it?

ANSWER: **oxygen**

6A. Shoemaker-Levy 9, which collided with Jupiter in 1994, was what kind of dusty, icy celestial body?

ANSWER: **comet**

6B. This is a 30-second calculation question. The sum of two numbers is 8 and the sum of their squares is 40. Find the product of the numbers.

ANSWER: **12**

7A. This is a 30-second calculation question. An archery target consists of three concentric circles with radii 1, 3, and 5 respectively. An arrow hits a random point within the target. What is the probability it hits in the region between the middle and inner circles?

ANSWER: **8/25** [or **0.32**; or **32 percent**]

7B. Name the adjective placed before magnitude to describe a star's brightness, and before value to describe a number's distance from zero.

ANSWER: **absolute**

8A. General Sherman is a tree in what National Forest in California named for the giant trees it harbors?

ANSWER: **Sequoia** National Forest

8B. What NBA team went 30 years between playoff series wins and currently features Chris Paul and Blake Griffin?

ANSWER: Los Angeles **Clippers** [prompt on **Los Angeles**; prompt on **LA**]

9A. Which charges, levied by a government upon its people, come in "income" and "sales" varieties, and can result in deadweight loss?

ANSWER: **taxes**

9B. What literary term describes a pair of rhyming lines? Shakespearean sonnets end with this structure.

ANSWER: **couplet**

10A. Rick Scott declared a state of emergency in response to what hurricane that disrupted the 2012 Republican National Convention?

ANSWER: Hurricane **Isaac**

10B. Strange, charm, up, down, top, and bottom are the six flavors of what subatomic particles?

ANSWER: **quarks**



1. In this film, Mr. Bernstein has monthly thoughts of seeing a girl with a white parasol. The main character's relationship with Susan Alexander is exposed by the main character's political opponent Jim W. Gettys in this movie. Known for its extended use of deep focus, this film depicts an heir to a goldmine fortune who bought the New York Inquirer. For 10 points, name this movie directed by and starring Orson Welles as the title newspaper magnate who lives in his state of Xanadu and utters "Rosebud" before dying.
ANSWER: Citizen Kane

030-12-71-07117

2. This man never finished his novel about the conman Felix Krull, and he depicted the syphilis-ridden composer Adrian Leverkuhn in his novel *Doctor Faustus*. Another work by this man describes visions of Greek gods experienced by the protagonist before he dies of cholera on a beach. One of this man's novels focuses on the title merchant family, *Buddenbrooks*, while another sees Hans Castorp journey to a Swiss sanatorium. For 10 points, name this author of *The Magic Mountain* who portrayed Gustav von Aschenbach's obsession with Tadzio in *Death in Venice*.

ANSWER: Thomas Mann

191-12-71-07118

3. The anointing of Jesus by the woman with the alabaster jar took place at the house of a man with this name known as "the Leper." In Acts, a figure of this name is a magician who attempts to give Peter and John money in exchange for the power of laying on of hands, and the crime of buying or selling spiritual things is named for that man. This is the birth name of the brother of Andrew who fished alongside James and John. This is the original name of the man who is told that he is the rock upon which Jesus will build his Church. For 10 points, give this original name of the first Pope, Peter.

ANSWER: Simon

195-12-71-07119

4. This king's coronation was marred by a massacre of Jews, but he punished those responsible before leaving on a campaign during which he helped Phillip Augustus besiege Tyre. This king was killed by a crossbow bolt fired from the castle of Chalus. After the death of his father, Henry II, this prisoner of Leopold V of Austria led the English forces in the Third Crusade. For 10 points, identify this brother of King John who was renowned for his bravery.

ANSWER: Richard I of England [or Richard the Lionhearted; or Richard Coeur de Lion; prompt on Richard_]

195-12-71-07120

5. In one novel by this author, the murder of Joanna Burden leads Doc Hines to call for the death of Joe Christmas. Cash reinjures his leg in a wagon accident in another novel by this author. In that novel, Vardaman bores air holes into a coffin carrying the deceased Addie Bundren. This author also created Jason and Quentin Compson. For 10 points, name this author who created the fictional Yoknapatawpha (YOK-nuh-puh-TAH-pha) county and wrote the novels *Light in August*, *As I Lay Dying*, and *The Sound and the Fury*.

ANSWER: William Cuthbert Faulkner

194-12-71-07121

6. This author wrote of a deaf mute who recognizes a blazing building as his own home in "Chickamauga." One of his works describes a Christian as a person who follows Christ's teachings so long as they allow sinning. That satirical book of definitions is his *The Devil's Dictionary*. Another of his works is about a man who experiences an elaborate fantasy of his escape from imminent death by hanging. For 10 points, identify this American author who wrote of Peyton Farquhar in "An Occurrence at Owl Creek Bridge."
ANSWER: Ambrose **Bierce**

189-12-71-07122

7. This character is presumed dead after falling into the sea while saving a worker on the ship *Orion*. He is given the nickname Leblanc by another character due to his white hair, and he also uses the name Ultimus Fauchelevant (foe-SHEL-uh-vont) while staying in a convent. He receives silver candlesticks from Bishop Myriel and is continually pursued by Inspector Javert (zhuh-VAIR). For 10 points, name this adoptive father of Cosette and protagonist of Victor Hugo's novel *Les Miserables* (LAY mee-zair-AHB).
ANSWER: Jean **Valjean** [or **Jean** Valjean]

194-12-71-07123

8. This man's son of the same name won a special election to fill in the unexpired term of Senator Everett Dirksen. This man presented evidence that the Soviet Union was stockpiling weapons while serving as ambassador to the United Nations during the Cuban Missile Crisis. This man was the grandson of Grover Cleveland's Vice President. He gave "Never run against a war hero" as advice to a young politician. For 10 points, name this Illinois governor who twice ran against and lost to Dwight Eisenhower as the Democratic presidential nominee.
ANSWER: Adlai Ewing **Stevenson**

030-12-71-07124

9. In one game of this series, the player can shoot eight switches near a supply train to divert it on the world of Macbeth. The Aparoid Queen is a villain in this series, which was set on Dinosaur Planet. Characters in these games include the bunny-eared Peppy and Slippy Toad, who travel to Venom to defeat Andross, and a player character for whom one can press R or Z twice to do a barrel roll. For 10 points, name this series of Nintendo games in which Falco is on the title team of anthropomorphic animals in spacecraft.
ANSWER: **Star Fox** series

104-12-71-07125

10. The change in entropy for substances undergoing this process is often around 10.5 times the gas constant according to Trouton's Rule. When a solution lacks nucleation sites, this process may not occur in it, resulting in superheating. This process occurs when vapor pressure equals atmospheric pressure. The temperature at which it occurs may increase due to solute particles in a colligative property describing its "elevation." For 10 points, name this phase change during which a liquid turns into a gas.
ANSWER: **boiling** [or **vaporization**]

190-12-71-07126

11. The z transform of the impulse response yields a representation of linear, time-invariant systems as a transfer one of these things. Maps and operators are other terms used to refer to these things. The set of values for which these things are defined is their domain; those that have only one element in their range for every element in their domain are known as one-to-one. The negative of the input is equal to the negative of the output for odd examples of these things. For 10 points, identify these things that relate inputs and outputs.
ANSWER: **function**

066-12-71-07127

12. A planar substance composed entirely of this element was the subject of Andre Geim and Konstantin Novoselov's 2010 Nobel Prize in Physics. Another compound consisting of sixty atoms of this element forms a soccer-ball like truncated icosahedrons and was named for American architect R. Buckminster Fuller. In addition to those allotropes of this element, it is found in a covalent network in the hardest natural compound. For 10 points, name this element which occurs naturally in graphite and diamond, as well as all organic compounds.

ANSWER: **carbon** [or **C**]

190-12-71-07128

13. This structure runs parallel to the Boyd-Roosevelt Highway. This structure required the creation of the Gaillard Cut in Gamboa. This structure includes Gatun Lake, Miraflores Lake, and the Chagres River on its path. This structure is crossed over by the Centennial Bridge and the Bridge of the Americas. For 10 points, name this man-made structure that opened to traffic in 1914 and connected the Atlantic to the Pacific through a Central American isthmus.

ANSWER: **Panama Canal** [or **Canal de Panama**]

023-12-71-07129

14. This scientist developed the shunting-yard algorithm to transform infix notation to reverse Polish notation. This scientist introduced the dining philosopher's problem, which can be solved using another concept he invented, semaphores. One algorithm named for this man fails when a graph has negative edge weights. For 10 points, identify this author of "Go To Statement Considered Harmful" and namesake of a greedy shortest path algorithm.

ANSWER: Edsger W. **Dijkstra**

066-12-71-07130

15. The protagonist of this novel indicates a change in her nature as she "resisted all the way" when being taken to be locked up in the "red room." In this novel, Helen Burns is a friend of the protagonist, who attends Lowood. Another character in this novel, a madwoman locked in an attic named Bertha Mason, burns down an estate called Thornfield Hall. For 10 points, identify this novel in which the title female falls in love with Mr. Rochester, a work by Charlotte Bronte.

ANSWER: **Jane Eyre**

189-12-71-07131



1. One character in this play receives a large income from Ezra Wannafeller to deliver lectures on morality. This play opens during a rainstorm in Covent Garden, where the "Note Taker" is suspected of being a policeman. One character in this play bets his colleague, Colonel Pickering, that he can make a Cockney girl pass as a duchess. For 10 points, name this mythologically-titled George Bernard Shaw play in which Henry Higgins tutors Eliza Doolittle.

ANSWER: Pygmalion

186-12-71-07132

2. A jazz album based on this ballet was arranged by Billy Strayhorn and is one of Duke Ellington's *Three Suites*. This ballet's choreographer Marius Petipa used as its text Alexander Dumas pere's adaptation of an ETA Hoffman story. The "Trepak," the "Arabian Dance," and the "Chinese Dance" are songs from this ballet, in which Herr Drosselmeyer's arrival on Christmas Eve initiates the action. The villainous mouse-king is killed in this ballet after Clara's doll comes to life. For 10 points, name this ballet about a toy soldier, with music by Tchaikovsky.

ANSWER: *The Nutcracker* [or *Shchelkunchik*; or *Casse-Noisette*; or *Ballet-Feerie*]

020-12-71-07133

3. Arthur Holmes did work on this man's hypothesis that the mantle undergoes thermal convection. This man's most famous theory was supported by the discovery of seafloor spreading. After reading a scientific paper linking fossil records on opposite sides of the Atlantic and noticing the complementarity of South America's and Africa's coastline, he proposed the existence of a supercontinent later named Pangaea. For 10 points, name this person who proposed the theory of continental drift.

ANSWER: Alfred Wegener

066-12-71-07134

4. A Republican architect of bipartisan foreign policy following World War II was a Senator from this state named Arthur Vandenburg. A man known as the "Father of Popular Sovereignty" who lost the 1848 presidential election, Lewis Cass, was from this state. A former Representative of this state was responsible for the "Whip Inflation Now" program and granted an unconditional pardon to Richard Nixon. For 10 points, name this state home to Gerald Ford and once governed by George Romney from Lansing.

ANSWER: Michigan

030-12-71-07135

5. In 2012, this country's Supreme Court threw out all 122 licenses to cell phone companies that were improperly granted in its "2G spectrum scam" scandal. In 2011, this country's government agreed to implement anti-corruption policies to end Anna Hazare's hunger strike. This country also arrested Abu Jundal, believed to be a high-ranking planner of the 2008 terrorist attacks which hit this country's largest city. For 10 points, name this country which also resumed bilateral dialogue with its neighbor, Pakistan.

ANSWER: Republic of India [or Bharat]

019-12-71-07136

What Elizabethan satirist wrote such plays as *Volpone* and *The Alchemist*?

ANSWER: Ben Jonson