

1. A large-scale painting by this man includes many paintings of stone-lined lunettes. Draperies and writhing snakes were later added to cover nude figures in this man's *Last Judgement*, which also includes a self-portrait of this artist on the flayed skin of St. Bartholomew. His most famous paintings include a depiction of the Libyan sibyl and a painting in which God touches the tip of Adam's finger to give him life. For 10 points, name this man who painted the Sistine Chapel ceiling.

ANSWER: Michelangelo Buonarotti

032-09-2-11101

2. Cadherins (cad-HERE-inz) and integrins (IN-tuh-grinz) are among the many proteins that span this structure, and flippases (FLIP-ay-suhz) aid molecule movement in it. The fluid mosaic model of this structure states that it is composed of structures like lipid rafts and protein complexes floating freely in a phospholipid bilayer (FOSS-fo-LIP-id BY-lay-ur). Ion channels aid ion transport through this entity to enter or exit the cell. For 10 points, name this barrier that separates a cell from the outside environment.

ANSWER: cell membrane

032-09-2-11102

3. One ruler of this dynasty fell to his death down several steps in his library and had reclaimed his empire from the usurper Sher Shah Suri. The golden age of this dynasty occurred under an illiterate king whose court included the "Nine Jewels," including Birbal. The jizya tax for non-Muslims was reinstated by this dynasty's emperor Aurangzeb (ore-ANG-zehb), the son of a ruler who erected a public monument for his wife Mumtaz. This empire was founded by the Afghani ruler Babur and ruled by Shah Jahan and Akbar. For 10 points, name this late-medieval Islamic empire in India.

ANSWER: Mughal Empire

020-09-2-11103

4. The Ripon Falls are a natural outlet of this lake, and the Kendu and Homa Bays lie in its Winam Gulf. Near the city of Jinja, the Owen Falls Dam, which creates the Nalubaale Power Station, regulates the primary outflow of this lake. Ukerewe Island is the largest island in this body of water, which also contains the Ssesse Islands. The cities of Entebbe and Kampala lie on this lake, and it is the source of the White Nile. For 10 points, name this lake bordered by Kenya, Tanzania and Uganda, which is the largest lake in Africa.

ANSWER: Lake Victoria [prompt on White Nile until "lake"]

035-09-2-11104

5. This dynasty took full control after its first leader won the Battle of Gaixia (gay-ZEE-uh) against Xiang Yu, the leader of the Chu state. The Trung sisters in Vietnam fought against this dynasty, which was interrupted by the Xin Dynasty of Wang Mang. During this dynasty, Sima Qian compiled *The Records of the Grand Historian*, and this dynasty reached its greatest territorial extent under Wudi. For 10 points, name this early Chinese dynasty founded by Liu Bang following the collapse of the Qin Dynasty.

ANSWER: Han Dynasty

036-09-2-11105

6. This novel's main character is jailed for nearly killing Mr. Fitzpatrick in a duel. The title character of this novel is often beaten by his pedantic tutor Thwackum, and becomes the rival of Blifil after being taken in by Squire Allworthy as an infant. At the end of this novel, the title character discovers that he was not born a bastard, allowing him to marry Sophia Western. For 10 points, name this novel about a "foundling" by Henry Fielding.

ANSWER: *The History of Tom Jones, a Foundling*

004-09-2-11106

7. Chappell and White created a lettered classification system for this type of rock. This rock occupies most of the upper-left side of the plutonic QAPF diagram. Pressure release is a form of weathering that causes exfoliation of layers of domes of this rock. Rhyolite has an equivalent composition to this rock, but unlike rhyolite, this rock is intrusive. For 10 points, name this type of igneous rock found in the domes of Yosemite.

ANSWER: granite

036-09-2-11107

8. This man established a colony at Amphipolis (am-PHI-poh-liss), and he attempted to call a Panhellenic congress in 448 BCE. This man was an opponent of the Areopagus, and he became a prominent figure by prosecuting Cimon. This man destroyed Euboea in 446 BCE after it revolted against the Delian League, and he oversaw a 445 truce between Sparta and his city that allowed for a flourishing of the arts. For 10 points, name this Athenian statesman of that city's Golden Age.

ANSWER: **Pericles**

030-09-2-11108

9. In some accounts, this man fathered Prima by Hersilia, which was the only married woman taken when this man led a group attempting to find wives among the Sabine Women. This man was attending a sacrifice when his great-uncle Numitor captured his brother. He later killed that brother after claiming to have seen twelve vultures, while his brother saw only six. For 10 points, name this legendary founder of Rome who killed his brother Remus.

ANSWER: **Romulus**

003-09-2-11109

10. Plotting the values of latter rows of this arrangement with a bar graph approximates a normal distribution. Adding the shallow diagonals of this arrangement yields the Fibonacci Sequence and coloring the odd numbers in this arrangement produces a Sierpinski Triangle. The nth row of this arrangement gives the binomial coefficients of a polynomial expansion of the nth power. For 10 points, name this figure in which every number is the sum of the two numbers directly above, named after a French mathematician.

ANSWER: **Pascal's Triangle**

036-09-2-11110

11. In the second scene of this play, a character sings a song that begins "Full fathom five thy father lies." A character in this play commands Ferdinand to roll logs. At the same time, the jester Trinculo and butler Stephano drunkely extract an oath of slavery from Caliban, the deformed son of Sycorax. At the end of this play, Prospero is restored to the throne of Milan thanks to the wits of his daughter Miranda and the spirit Ariel. For 10 points, name this play, the last one written by Shakespeare, that starts with a shipwreck due to the title storm.

ANSWER: *The* **Tempest**

019-09-2-11111

12. In *Treasure Mountain*, these creatures held scrolls and asked questions if you caught them with a net. In Warcraft II, these creatures gave the human side Destroyers and Archers, and World of Warcraft includes "Night" and "Blood" types. For 10 points, name these creatures that are typically depicted with elongated ears and sometimes come in "Wood" or "Dark" varieties.

ANSWER: **elves**

003-09-2-11112

13. This man claimed that one of his legal doctrines was misused in his dissent in *Abrams v. United States*. In this man's opinion in *Buck v. Bell*, this man wrote in favor of sterilizations for "those who are manifestly unfit from continuing their kind." This man wrote an opinion upholding the conviction of a man who distributed leaflets urging resistance to the draft in World War I. For 10 points, name this Supreme Court justice who, in his opinion in *Schenck v. United States*, formulated the "clear and present danger" doctrine.

ANSWER: Oliver Wendell **Holmes**, Jr.

030-09-2-11113

14. One episode of this work sees a man shoot a baby water buffalo to shreds after the death of his close friend. One soldier featured in this book wears a pair of his girlfriend's pantyhose around his neck for good luck. Items in the title category include rifles, rations, guilt, and fear. For 10 points, name this book about a group of soldiers fighting in the Vietnam War, a work of Tim O'Brien titled for the objects the soldiers had with them.

ANSWER: *The* **Things They Carried**

032-09-2-11114

15. One king from this country employed the statesman Axel Oxenstierna (OCKS-en-STEER-nuh). This country's king Charles XII won the battle of Narva but was crushed by Russia in the battle of Poltava during the Great Northern War. This country broke away from the Denmark-controlled Kalmar Union under its king Gustav Vasa. Another king of this country was nicknamed the Lion of the North before dying at Lutzen during the Thirty Years War. For 10 points, name this Scandanavian country which was led by Gustavus Adolphus and has its capital at Stockholm.

ANSWER: **Sweden**

015-09-2-11115

1A. Name the state, in which Justice of the Peace Keith Bardwell refused to marry an interracial couple in October 2009, and which is governed by Bobby Jindal.

ANSWER: **Louisiana**

1B. Name the NBC series in which Tina Fey plays Liz Lemon, who runs the fictional TV show *TGS with Tracy Jordan*.

ANSWER: **30 Rock**

2A. Name the number, sometimes called "Big G," which is used to calculate the force of attraction between two objects and was discovered by Henry Cavendish.

ANSWER: **gravitational constant**

2B. Name the curve which claims that decreased tax rate can result in increased revenue and was the basis for supply side economics.

ANSWER: **Laffer** curve

3A. Name the features of glaciers that have lateral and terminal varieties, and are an accumulation of debris.

ANSWER: **moraines**

3B. What phylum of invertebrates (in-VER-tuh-brutz) with exoskeletons includes the classes of insects and arachnids?

ANSWER: **arthropoda** [or **arthropods**]

4A. This is a 10-second calculation question. Find the mean of the following numbers: 12, 7, 9, 8, 11, 13.

ANSWER: **20**

4B. This is a 10-second calculation question. How many degrees are in pi over 3 radians?

ANSWER: **60** degrees

5A. Name the literary device that refers to extreme exaggeration, as in the phrase "I could eat a horse."

ANSWER: **hyperbole**

5B. Name the scientist who developed the equation "E equals mc squared" and created the theories of special and general relativity.

ANSWER: Albert **Einstein**

6A. This is a 20-second calculation question. Two answers are required. Identify the center and radius of the following circle: quantity $x-3$ squared plus quantity $y+2$ squared equals 324. $((x-3)^2 + (y+2)^2 = 324)$

ANSWER: Center at **(3, -2)** and radius = **18**

6B. This is a 20-second calculation question. What is the value of 3 heart 7 given that x heart y is equal to x squared times y, plus the quantity y minus x?

ANSWER: **58**

7A. Name the language that has a dialect known as Kven and was used by Elias Lonrot to write the *Kalevala*.

ANSWER: **Finnish** [or **Suomi**]

7B. Name the Montana Senator and Senate Finance Committee chairman who was criticized for taking money from health care companies after taking the lead on health care reform.

ANSWER: Max **Baucus**

8A. Name the former Auburn quarterback who struggled while opening the 2009 season starting for the Washington Redskins.

ANSWER: Jason **Campbell**

8B. Name the painter of *The Oxbow* and *The Course of Empire* who led the Hudson River School.

ANSWER: Thomas **Cole**

9A. This is a 30-second calculation question. What is the remainder when 1372 is divided by 23?

ANSWER: **15**

9B. This is a 30-second calculation question. Convert the binary number 10101010 into a decimal number.

ANSWER: **170**

10A. Name the river that passes through Kemple, Oxford, Reading, and London.

ANSWER: River **Thames**

10B. Name the type of poetry often employed by Shakespeare, in which there is rhythm but no rhyming.

ANSWER: **blank verse**

015-09-2-11116

1. In one story by this author, Pat Scully watches on as a Swede fights a cowboy and is stabbed by a gambler. In another of this author's stories, the correspondent, the cook, the oiler, and the captain brave the ocean. One novel by this author of "The Blue Hotel" and "The Open Boat" ends with the death of the titular "girl of the streets," Maggie. Another of this author's novels sees Henry Fleming get the titular wound during the Civil War. For 10 points, name this American author who wrote *The Red Badge of Courage*.

ANSWER: Stephen **Crane**

024-09-2-11117

2. This man served as military governor of Tennessee during the Civil War, after having served as that state's governor for two terms in the 1850s. This man was the only senator from the South who did not leave after the Confederacy's secession, which eventually led to this man succeeding Hannibal Hamlin (HAM-lin) in another post. This man's removal of Edwin Stanton violated the Tenure of Office Act, leading to this man being the first impeached president. For 10 points, name this man who became president after the assassination of Abraham Lincoln.

ANSWER: Andrew **Johnson**

023-09-2-11118

3. Recent changes proposed to this by Whatwg include canvas and article elements. It comes in strict, traditional, and frameset versions. Common attributes include name, id, and href. Based on work done by Tim Berners-Lee, official specifications are published by the W3C. Components created from this can be manipulated by DOM, styles are applied via CSS, and dynamic interaction through javascript. For ten points identify this markup language used to write web pages.

ANSWER: **HTML** [or **Hypertext Markup Language**; prompt on web pages]

001-09-2-11119

4. This author wrote about a sorcerer named Cipollo, who is killed in his story *Mario and the Magician*. This author wrote one of his novels from the perspective of Serenus Zeitblom, who is friends with a composer who collapses at the keyboard playing his last work. Another novel by this man is about the family that ends with the death of Hanno. This author wrote a novel about Adrian Leverkühn, *Doktor Faustus*. This author wrote a novel set in Sanatorium Berghof in Switzerland, where Hans Castorp lives. For 10 points, name this author of *Buddenbrooks* and *The Magic Mountain*.

ANSWER: Thomas **Mann**

027-09-2-11120

5. Deficiency of this gland's namesake hormone leads to cretinism in newborns, and thyroxine (thy-"ROCKS"-een) is required to form that hormone. This butterfly-shaped gland sits at the front of the neck around the larynx (LAIR-"inks") and trachea (TRAY-kee-uh). Iodine is necessary for the synthesis of this gland's namesake hormone, and a deficiency of iodine causes it to become enlarged. For 10 points, name this endocrine gland that forms a goiter when not enough iodine is available.

ANSWER: **thyroid** gland

032-09-2-11121

6. This composer quoted his quartet "Cypresses" in the third movement of his Cello Concerto in B minor. This composer built on folk themes for his early works like Moravian Duets and Slavonic Dances. This composer's ninth symphony in E minor contains a flute solo that resembles the spiritual "Swing Low, Sweet Chariot" and was written after this composer's visit to the United States. For 10 points, name this Czech composer of the New World Symphony.

ANSWER: Antonin **Dvorak** (duh-VOR-zhak)

036-09-2-11122

7. This man wrote about a hedonist who tried to "resuscitate the dead art/Of poetry" in *Hugh Selwyn Mauberly*. His other works include the collection *Cathay* and the two-line poem "In A Station of the Metro." He translated a poem by a Chinese poet who allegedly drowned while trying to embrace the moon. For 10 points, name this expatriate poet who translated Li Po's "The River Merchant's Wife" and never finished his long poem *The Cantos*.

ANSWER: Ezra **Pound**

032-09-2-11123

8. The Lambertian model for this phenomenon applies to its diffuse form. The statement that the angle of incidence equals the angle of this phenomenon holds for the specular form of this process. At an angle greater than the critical angle for an interface, the total internal form of this occurs. For 10 points, name this phenomenon in which a wavefront approaches an interface and returns to the same medium, such as when light hits a mirror.

ANSWER: **reflection**

022-09-2-11124

9. This writer compared the canals of Amsterdam to the circles of Hell in a novel about the Parisian defense lawyer Clamence. Besides writing *The Fall*, this author also wrote of Bernard Rieux working in the quarantined city of Oran during an epidemic. In another work by this author, Raymond is wounded with a knife, leading Mersault to shoot an Arab. For 10 points, name this French existentialist author of *The Plague* and *The Stranger*.

ANSWER: Albert **Camus**

036-09-2-11125

10. This man's claim to succession was put above the rightful claim of Britannicus. This man was tutored by the philosopher Seneca. This man attempted to build a palace called the Golden House, which was to cover a third of Rome, and he was the target of Piso's Conspiracy. This man was the successor to Claudius, and this man had his mother Agrippina murdered. For 10 points, name this Roman emperor under whose rule Rome burned in 64 CE.

ANSWER: **Nero** Claudius Caesar Augustus Germanicus

030-09-2-11126

11. The title character of one of this man's plays uses the Turkish king Bajazeth as a footstool. The narrator of one of this man's poems promises things such as "buckles of the purest gold" after urging the title character to "Come live with me and be my love." This author of *Tamburlaine* and "The Passionate Shepherd to his Love" also wrote a play in which Barabas dies in a cauldron. This author also penned a "tragical history" that adapts of the Faust legend. For 10 points, name this Elizabethan playwright of *The Jew of Malta* and *Doctor Faustus*.

ANSWER: Christopher **Marlowe**

015-09-2-11127

12. When these are displaced onto third parties, they are known as either positive or negative externalities. The value of the alternatives that one gives up in order to pursue a particular end is known as the "opportunity" kind of this. The amount required to manufacture one additional unit is called the "marginal" kind. The kind that does not change regardless of quantity produced is the "fixed" type. For 10 points, identify these economic entities, which can simply be the amount of money needed to acquire a good.

ANSWER: **costs**

019-09-2-11128

13. The reversal of this process is known as deposition, and it occurs at temperatures and pressures below the triple point. Its enthalpy for a given substance is the sum of the enthalpy of fusion and the enthalpy of vaporization for that substance. Its best-known example is the 'disappearance' of dry ice. For 10 points, name this process that involves a solid directly becoming a gas, without going through the liquid phase.

ANSWER: **sublimation**

047-09-2-11129

14. This man was the first American minister to Russia. While serving as Secretary of State, this man negotiated a treaty that transferred Florida from Spanish to American control; that treaty was named for this man and Luis de Onis (OH-niss). This man named Henry Clay as his Secretary of State after Clay helped him win a presidential election over Andrew Jackson with the so-called "corrupt bargain." For 10 points, name this man who wrote the Monroe Doctrine, and who became president in 1824, following in the footsteps of his father.

ANSWER: John **Quincy Adams** [prompt on **Adams**; do not accept or prompt on "John Adams"]

028-09-2-11130

15. A piano opens with a tone row in octaves in this composer's Violin Sonata. This composer set Yevtushenko's poetry to the five movements of his Thirteenth Symphony, which commemorates the massacre of the Jews at Babi Yar. Critics accused this composer of making his ninth symphony too light-hearted. A march-like ostinato forms the invasion theme of this composer's seventh symphony, written around the Nazi attack of Russia. For 10 points, name this Soviet composer who feuded with Stalin and wrote the Leningrad Symphony.

ANSWER: Dmitri Dmitriyevich **Shostakovich**

036-09-2-11131

1. Gilman reagents contain lithium and this element, and Egyptian blue, the first synthetic pigment, contains it. Rochelle salt and sodium hydroxide are the components, along with this element's sulfate, of Fehling's solution. One of its oxides precipitates in a positive test from Benedict's reagent. This metal forms a common galvanic cell with zinc. For 10 points, name this ductile conductor, popularly used in wiring, which turns green when oxidized and has symbol Cu.

ANSWER: copper

022-09-2-11132

2. The First Letter to the Corinthians states that this figure was the first to see Jesus risen. In Matthew, this figure attempted to imitate Jesus by walking on water, but failed. This man argued with Paul over the importance of circumcision for Christians. This man asked Jesus to wash not only his feet but his also head and hands before the Last Supper, and he was called a "fisher of men" along with his brother, Andrew. For 10 points, name this apostle who betrayed Jesus three times and was "rock" upon which Jesus built his Church, the first pope.

ANSWER: Simon Peter [or Petros; or Cephas; or Kephas]

005-09-2-11133

3. The application of ATP can induce this process in cyanobacteria ("sigh"-ANN-oh-back-TEER-ee-uh), and the suprachiasmatic (SOOP-ruh-ky-az-MAT-ic) nuclei controls this entity in mammals. It is often displayed in plants by the movement of leaves in relation to the sun. Studies have shown that mammals can maintain one of these entities despite the absence of usual cues like light and darkness. For 10 points, name this cycle of about 24 hours that governs organisms' activities and is often called the "biological clock."

ANSWER: circadian rhythm

032-09-2-11134

4. This thinker argued against the liberal policies of Gladstone in *The Man Versus the State*. This thinker conceived of society as a living organism in his *Principles of Sociology*. This man posited the development of societies from military to complex and industrial and outlined "individuation" in *Social Statics*, which also introduced this man's interpretation of natural selection. For 10 points, name this British thinker who coined the term "survival of the fittest" and developed social darwinism.

ANSWER: Herbert Spencer

005-09-2-11135

5. This man wrote about an enchanted guitar in his novel *Reservation Blues*. "A Drug Called Tradition" is one of a collection of 21 stories set on a Spokane reservation, *The Lone Ranger and Tonto Fistfight in Heaven*. Many of this man's works include members of the Spokane tribe, like the character Thomas Builds-the-Fire. For 10 points, name this Native American author of *The Absolute True Diary of a Part-Time Indian*.

ANSWER: Sherman Alexie

032-09-2-11136