

1. The leader of the protestors at this event was saved by Pinhas Rutenberg. This incident occurred a month after a strike at the Putilov Plant. Grand Duke Vladimir ordered the guards to fire on the demonstrators at this event. This event was led by Father Gapon, who presented a petition for universal suffrage and other reforms. Victims in this incident marched on the Winter Palace in Saint Petersburg. For 10 points, name this event in which forces loyal to Nicholas II fired on peaceful demonstrators, thus sparking the Russian Revolution of 1905.

ANSWER: **Bloody Sunday**

035-09-2-05101

2. In 2008, this school became only the second school, after Stanford, to capture the men's and women's volleyball titles in the same academic year. In 2009, men's basketball coach Ed Dechellis was given a three-year contract extension after leading the team to the NIT championship. In both 2008 and 2009, this school's football team was upset by Iowa, and it lost the 2009 Rose Bowl to Southern Cal. For 10 points, name this school at which Joe Paterno still coaches.

ANSWER: **Penn State** [or **Pennsylvania State** University]

003-09-2-05102

3. In one part of this work, Phoebus keeps his wife hidden in his house and curses a crow to blackness after it reveals her affair. Celia survives boiling and beheading because of her Christian faith in one part of this work. In another section of this work, Chanticleer tricks Reynard into letting him go. This work includes the story of Nicholas telling John the Carpenter about a flood to sleep with his wife Allison. In its first story, Arcite and Palomon fight over Emily. For 10 points name this work in which characters like the Manciple, Nun's Priest, Miller, and Knight tell stories while on a pilgrimage, a work of Geoffrey Chaucer.

ANSWER: *The* **Canterbury Tales**

015-09-2-05103

4. This artist's portrait of Pope Innocent the Tenth was modified by the modern painter Francis Bacon. This artist painted the god Bacchus crowning a drunken reveler with laurels in his *Los borrachos*. This man painted himself holding a palette and wearing a black robe with a cross on it in his most famous painting. That painting by this man also depicts a girl stepping on a dog and a dwarf attending to the Infanta Margarita. For 10 points, name this court painter to Phillip IV who painted some Maids of Honor in *Las Meninas*.

ANSWER: Diego **Velazquez**

015-09-2-05104

5. This author's ghost stories are collected in *Present at a Hanging*. This author wrote about a chess-playing robot that kills its inventor in "Moxon's Master." This author also claimed that a lawyer is a person skilled in circumventing the law in a satire on Noah Webster's work. In another short story, this author wrote about a man's vivid imagination after being hanged. That work by this man describes how Peyton Farquhar doesn't actually escape from his Union captors. For 10 points, name this American author of "An Occurrence at Owl Creek Bridge" and *The Devil's Dictionary*.

ANSWER: Ambrose Gwinnett **Bierce**

036-09-2-05105

6. The way that this phenomenon adjusts to an applied magnetic field in uneven bursts is described by the Barkhausen effect. A hysteresis loop causes this effect to remain after the removal of the magnetic field. This phenomenon occurs because an external magnetic field causes the magnetic domains of a material to become aligned, though that effect breaks down above the Curie temperature as the material reverts to being paramagnetic. For 10 points, name this kind of magnetism found in materials like cobalt, nickel, and iron, its namesake.

ANSWER: **ferromagnetism**

028-09-2-05106

7. Jacobus Arminius led a group who deviated from the teachings of this man known as the Remonstrants. This man studied with Martin Bucer during a period where he took refuge in Strasbourg. This man was responsible for the burning at the stake of Michael Servetus. This leader worked closely with Guillaume Farel. This man laid out his beliefs in his *Institutes of the Christian Religion*. This religious leader's doctrine of the elect implied a kind of predestination. For 10 points, name this Geneva preacher integral to the Protestant Reformation.

ANSWER: John **Calvin**

028-09-2-05107

8. The father of this character exclaims, "How great and nimble a throat thou hast!" when this character demands to drink as soon as he is born. This character was in his mother's womb for eleven months. When the King of Lerné invades this character's land, Friar John greatly helps this character defeat his enemy. This character attempts to find the Oracle of the Holy Bottle with his son. This son of Grandgousier builds the Abbey of Theleme in the monk's honor after defeating Picrochole. For 10 points, name this giant written about in a satire by Francois Rabelais, the father of Pantagruel.

ANSWER: **Gargantua**

034-09-2-05108

9. The second movement of the second of these pieces depicts a tired man fighting off swarms of insects while he tries not to worry about an impending storm. A series of poems discusses its representation of Zephyr and Boreas fighting while a Shepherd weeps, and another part sees a violin represent a shepherd while a viola represents a sheeppdog. This cycle is part of a larger work that was dedicated to Wenzel von Morzin called *The Contest Between Harmony and Invention*, and it takes the form of four violin concertos. For 10 points, name this series including "La Primavera" and "L'autunno," composed by Antonio Vivaldi.

ANSWER: *The **Four Seasons*** [or *Le **Quattro Stagioni***; accept *The **Contest Between Harmony and Invention*** or *Il **Cimento dell'Armonia e dell'invention*** before "larger work"]

026-09-2-05109

10. ?When this man met the Christian monk Bahira, Bahira recognized the mole on this man's back as the "seal of the prophets." This figure was believed to be "ummi," or "unlettered," before being given the command "recite." During this figure's Night Journey, he pled with God to reduce the number of daily prayers from fifty to five. The "hijrah" (HEJ-uh-ree-uh) was this man's flight to Medina in 622. Seven years later, he returned to conquer Mecca. For 10 points, identify this figure who received the Quran from Gabriel and thus founded Islam.

ANSWER: Ab? al-Q?sim **Muhammad** ibn 'Abd All?h ibn 'Abd al-Muttalib ibn H?shim

019-09-2-05110

11. John Schrank tried to assassinate this man before this man gave a speech in Milwaukee while running for president. While president, this man sent the Great White Fleet on a world tour. This man ran as a Progressive Republican in the 1912 election in the Bull Moose Party. During the Spanish-American War, this man organized the Rough Riders. For 10 points, name this President known for his trust busting, who succeeded William McKinley after McKinley's assassination and was succeeded by William Howard Taft.

ANSWER: **Theodore Roosevelt** [or **Teddy Roosevelt**; or **TR**; prompt on **Roosevelt**]

023-09-2-05111

12. A process called ChIP (CHIP) employs these compounds to find DNA binding sites for a given protein. One region of these proteins undergoes isotype switching to produce the A, E, and G classes of these proteins. Their structure consists of a pair of heavy chains and a pair of light chains. They can be divided into polyclonal and monoclonal depending on how many objects they can bind to. For 10 points, name these gamma globulin proteins, also called immunoglobulins (im-MUNE-oh-GLOB-you-lins), that are produced by plasma B cells in the immune response.

ANSWER: **antibodies** [or **immunoglobulins** before mentioned; or **Ig** before "immunoglobulins"]

022-09-2-05112

13. James Wilkinson informed this man about the Conway Cabal that attempted to remove this man's power. Charles Lee ruined this man's chances of winning the Battle of Monmouth. This man instigated the French and Indian War by leading a force that killed Coulon de Jumonville. This man was driven into Fort Necessity by the French, where he surrendered to them. This general won the Battles of Trenton and Princeton after crossing the Delaware. For 10 points, name this commander in the American Revolution who went on to be the first president.

ANSWER: George **Washington**

027-09-2-05113

14. Offstage events in this play include the execution of Rivers, Gray, and Vaughn. In this work's fifth act, a procession including the ghosts of Anne and Hastings rebukes the title character. One character in this play uses Cardinal Bouchier's influence and hires James Tyrell to kill the Princes of the Tower. This play opens with the line "Now is the winter of our discontent." This play also includes the title character shouting "a horse, a horse, my kingdom for a horse" at the Battle of Bosworth Field. For 10 points, name this Shakespeare play about an evil hunchback king of England.

ANSWER: **Richard III**

015-09-2-05114

15. This man's wife Dia was the mother of Pirithous, though legends differ whether this man or Zeus was the father. This man's horses were seized after he failed to keep his promise of a gift to his wife's father Eioneus, and this man became the first mortal to murder a family member when he cast Eioneus into a pit. This man became father of the Centaurs after making love to the cloud Nephelē, which this figure thought was Hera. For 10 points, name this man who was punished by Zeus by being bound to a fiery wheel for eternity.

ANSWER: **Ixion**

030-09-2-05115

1A. Name the city, found thirty miles northwest of Denver, that is home to many federal scientific institutions as well as the main campus of the University of Colorado.

ANSWER: **Boulder**, Colorado

1B. Name the sport, the subject of a 2005 documentary of the same name, that uses advanced wheelchairs to allow disabled participants to play a version of full-contact rugby.

ANSWER: **murderball**

2A. Name the type of cloud which is seen in a spread-out pattern before a warm front arrives and is comprised of thin, wispy streaks of ice crystals at twenty thousand feet or higher.

ANSWER: **cirrus** cloud

2B. John William Waterhouse was part of a "Brotherhood" of English painters who sought to recapture the style that came before what Italian creator of *The School of Athens*?

ANSWER: **Raphael** [or **Raffaello**; or Raffaello **Sanzio**]

3A. A form of this process that occurs to unpolarized light is called birefringence. Name this process, subject to Snell's Law, in which a change in speed causes a wave to change in direction.

ANSWER: **refraction**

3B. Identify the economic institution whose principal organs of operation are its Board of Governors and Open Market Committee.

ANSWER: the **Federal Reserve System**

4A. This is a 10-second calculation question. Multiply: $(x + 3)(x + 6)$.

ANSWER: **$x^2 + 9x + 18$**

4B. This is a 10-second calculation question. If $x = 6$, evaluate $-2x^2 - x + 2$.

ANSWER: **-76**

5A. An example of this is using "the crown" to mean "the monarch." A more specific form of it is called synecdoche (seh-NEHK-dough-kee). What is this literary device, in which an object represents a related object?

ANSWER: **metonymy** (meh-TAH-neh-mee)

5B. What physicist, whose namesake "diagrams" show the interactions of subatomic particles, became famous late in life for participating in the investigation of the *Challenger* explosion?

ANSWER: Richard Phillips **Feynman**

6A. This is a 20-second calculation question. In terms of pi, give the volume of a cylinder with diameter ten inches and height eight inches.

ANSWER: **200 pi cubic inches**

6B. This is a 20-second calculation question. Solve for x : $x^2 - 6x = -8$.

ANSWER: $x =$ **2, 4** [both answers required]

7A. Name the verb mood used in French after certain superlative constructions, conjunctions, or expressions of doubt, usually alongside the word "que" (kuh).

ANSWER: **subjunctive** [or **subjonctif**]

7B. Name the country where the Democratic Party soundly defeated the Liberal Democratic Party in August 2009 parliamentary elections, signaling just the third power shift in fifty years.

ANSWER: **Japan** [or **Nippon**-koku; or **Nihon**-koku]

8A. What Democratic Senator secured the release of American citizen John Yettaw from a Burmese prison during his lengthy diplomatic trip to Southeast Asia in August 2009?

ANSWER: James Henry "Jim" **Webb**, Jr.

8B. Name the Matthew Arnold poem in which the author laments the emptying of the "Sea of Faith" and ends by describing a place "where ignorant armies clash by night."

ANSWER: "**Dover Beach**"

9A. This is a 30-second calculation question. How many ways are there to order five items on an agenda?

ANSWER: **120**

9B. This is a 30-second calculation question. An average typed page has 54 lines on it, and an average line has ten words. If a typist can type four pages in 27 minutes, what is her typing speed in words per minute?

ANSWER: **80** wpm

10A. He continued to film his series *The Beast* despite a diagnosis of pancreatic cancer. Name this late star of *Roadhouse*, *Ghost*, and *Dirty Dancing*.

ANSWER: Patrick **Swayze**

10B. Along with weevils, they comprise the order Coleoptera. Identify this general type of insect, the world's most common, with two pairs of wings that align along the back.

ANSWER: **beetles**

019-09-2-05116

1. The author of *Report on Degrading Punishments*, this man was given the nickname "Monkey of Mirabeau's" by the royalist press. This man opposed Jacques-Rene Hebert's Church of Reason. This leader unsuccessfully attempted suicide at the Hotel de Ville. This man was nicknamed "the Incorruptible." For 10 points, name this leader of the Committee of Public Safety and the Reign of Terror during the French Revolution, who was overthrown in the Thermidorian Reaction and guillotined.

ANSWER: Maximilien François Marie Isidore de Robespierre

030-09-2-05117

2. The protagonist of one work by this author is the thyroid cancer-fighting ecologist Paul Bannerman. In another work, this novelist wrote about the affair between Gideon and Ann Davis. This author of *Get a Life* and *An Occasion for Loving* also wrote about the changes that Jacobus brings when he discovers a dead body in Mehring's farm. The master-servant relationship in this woman's most famous work reverses when Maureen and Bamford Smales must rely on the titular black man to survive. For 10 points, name this South African Nobel Laureate who wrote *The Conservationist* and *July's People*.

ANSWER: Nadine Gordimer

034-09-2-05118

3. The concurrent type of this process is contrasted with the incremental type, both of which stop a program in question for shorter times than "stop the world." This process prevents segmentation faults because it stops dangling pointers. For 10 points, name this process wherein a program creates more space by destroying objects that aren't in use anymore.

ANSWER: garbage collection

033-09-2-05119

4. One poem by this author describes H.P. and a cottage in Berkeley that is still mostly empty. This author wrote about seeing Garcia Lorca by the watermelons in a poem in which he meets Walt Whitman. This author of "Transcription of Organ Music" also wrote "Strange not to think of you, gone without corsets and eyes" in a poem dedicated to his mother Naomi. This author of "A Supermarket in California" wrote the line "I saw the best minds of my generation destroyed by madness" in another poem. For 10 points, name this American Beat poet who wrote "Kaddish" and "Howl."

ANSWER: Irwin Allen Ginsberg

036-09-2-05120

5. The absence of these geological features can cause isostatic rebound, while the presence of these features can cause crust subsidence. These features make rock flour that can create milky-colored bodies of water, and the retreat of these features can form sharp ridges called arêtes. The lower parts of these features are known as ablation zones, and these features use plucking and abrasion to create drumlin fields and eskers. For 10 points, name these features that can leave a terminal moraine, large bodies of moving ice.

ANSWER: Glaciers

036-09-2-05121

6. In World War I, this man served as chief of staff of the Rainbow Division. According to one of his aides, this man was "too busy" to receive orders not to chase the Bonus Army back across the Anacostia River. This man warned of the danger of a militarized China in a farewell address given after being fired as Commander of U.S forces during the Korean War. This general's most famous speech was given in Australia after being forced to evacuate from the Philippines. For 10 points, name this American general who vowed, "I shall return."

ANSWER: Douglas MacArthur

003-09-2-05122

7. This condition may result from abnormalities in the transcription factor NFAT. Nuchal scans are prenatal screens used to detect this condition. Caucasian children with this condition display Brushfield spots more often than Asian children. At one in every approximately seven hundred births, it is the world's most common birth defect. The risk of this condition increases with increasing age of the mother. For 10 points, name this condition caused by a third copy of chromosome twenty-one.

ANSWER: Down syndrome [or trisomy 21 before "third"]

022-09-2-05123

8. Before the action of this play occurs, one of its characters had forged her father's signature to borrow money to travel to Italy. During this play, Dr. Rank confesses his love for the protagonist, who is blackmailed by the man who loaned the money, Nils Krogstad. In this play's final act, the protagonist leaves her husband Torvald. For 10 points, name this play in which Nora Helmer compares her life to a child's toy, written by Henrik Ibsen.

ANSWER: A Doll's House

004-09-2-05124

9. One deity from this country had a cult centered in Arsinoe and caught the four sons of another god in a net after they emerged from a lotus. In addition to Sobek, another goddess from this country was tricked into drinking blood colored beer while disguised as Sekhmet. That goddess, Hathor, was sometimes depicted as a cow. An ancient culture in this country believed that the heart of the deceased was weighed against the feather of Ma'at. For 10 points, an ancient culture in what modern-day country believed that the jackal-headed Anubis invented the process of making mummies?

ANSWER: Egypt

005-09-2-05125

10. One common example of this type of reaction is the thermite reaction used in welding. Whether or not this type of reaction will occur can be determined by a metal's place in the activity series. This type of reaction is exemplified by active metals, such as calcium and magnesium, reacting with water to form metal oxides and hydrogen gas. For 10 points, name this type of reaction, in which a more active element replaces a less active element in a compound.

ANSWER: single displacement reaction [or single replacement reaction]

003-09-2-05126

11. This movement followed the Bakumatsu period. Forces led by Saigo Takamori fought against this event in the Satsuma Rebellion. The 1889 Constitution was instituted following this event. This event's principles were laid out in the Charter Oath. A slogan used by supporters of this event was "Enrich the country and strengthen the military." The country in which this event took place greatly expanded its manufacturing capabilities and railroad network following this event. For 10 points, name this movement which ended the Tokugawa Shogunate and restored imperial rule to Japan, named for the emperor who took power.

ANSWER: Meiji Restoration [or Meiji period]

038-09-2-05127

12. The protagonist of this play is annoyed to see the anemic Bernard succeed with the help of Charley. One character in this play stops attending a summer remedial math class after discovering his father having an affair in Boston. Another character in this play has visions of his brother Ben returning from the jungle and discovering diamonds. This play ends with the title character stepping in front of a car to enable his wife Linda to collect insurance money. For 10 points, name this play about Willy Loman, who is fired from the title job, written by Arthur Miller.

ANSWER: Death of a Salesman

004-09-2-05128

13. He dedicated his violin concerto to the virtuoso Joseph Joachim, and Hans Bulow supposedly later criticized that work as being written "against the violin." This composer of variations on themes by Handel and Hayden also wrote a setting of the mass for the dead using text from the Lutheran Bible and a piece quoting school songs and commemorating his reception of a degree from the University of Breslau. For 10 points, this is what composer of pieces like the *German Requiem*, *Academic Festival Overture*, and a notable lullaby?

ANSWER: Johannes Brahms

032-09-2-05129

14. One result named for this man erroneously holds for Carmichael numbers and claims that " a to the p is equivalent to a mod p ." This man names a type of prime number of the form " $one plus two to the power two to the n ."$ The most famous result named for this man was proved using the Taniyama-Shimura Conjecture by Andrew Wiles in 1995; that theorem says that "for n greater than two" the equation " a to the n plus b to the n equals c to the n " has no integer solutions. For 10 points, name this French mathematician, the namesake of a "little theorem" and a "last theorem."

ANSWER: Pierre de Fermat

028-09-2-05130

15. One event in this country involved students planning a meeting in Orlando Stadium after marching past Phefeni Junior Secondary School. A similar event involved a protest of this country's use of pass laws. This country home to the Soweto uprising and Sharpeville massacre also saw P.W. Botha replaced by a man who drafted a new constitution and released a prisoner from Robben Island. For 10 points, name this country home to F.W. de Klerk, a man who worked with the ANC and Nelson Mandela to bring an end to apartheid.

ANSWER: Republic of South Africa

023-09-2-05131

1. A man named Elijah asks this novel's protagonist if he has sold his soul to the devil to work for "Old Thunder." Characters in this novel include a Zoroastrian with a turban made from his own beard, a man named Fedallah. Two Quakers in this novel are named Peleg and Bildad. One character in this work nails a gold piece to the mast and throws his pipe overboard the *Pequod* and is eventually killed by the title creature. This novel begins, "Call me Ishmael." For 10 points, name this novel about Captain Ahab's obsession with a white whale, written by Herman Melville.

ANSWER: *Moby-Dick*; or, *The Whale*

024-09-2-05132

2. This nation's capital city was designed by Walter Burley Griffin and Marion Mahoney Griffin. The Arafura Sea is directly north of this country's Gulf of Carpentaria. The south of this country is home to the Nullarbor Plain, which is north of its "Great Bight." Hobart and Darwin are the capitals of two of its states. Deserts in this country include the Gibson, Great Sandy, and Great Victoria. A giant sandstone formation in this country is called Uluru by its aboriginal inhabitants, and is also known as Ayers Rock. For 10 points, name this country whose cities include Perth, Canberra, and Sydney.

ANSWER: Commonwealth of Australia

027-09-2-05133

3. One portion of this gland is divided into the zona reticularis, zona fasciculata, and zona glomerulosa. That portion produces DHEA, aldosterone, and the stress hormone, cortisol. Other hormones produced by this gland are secreted by the chromaffin cells of its medulla. That medulla also produces a compound which is used to treat Parkinson's disease, dopamine. For 10 points, name this pair of endocrine glands which secrete epinephrine, which is named for its position atop the kidneys.

ANSWER: adrenal glands

022-09-2-05134

4. Ethanol and deionized water are possible controls in this technique. This technique often involves the use of loops of platinum or nichrome wires, and compounds tested in this technique often contain nitrate or chloride ions. Measuring the alkalinity of the resulting compounds is one way to distinguish lithium from strontium using this technique, as both give a red result. For 10 points, name this technique of determining the metal in a salt by placing it over a lit Bunsen burner.

ANSWER: flame tests

003-09-2-05135

5. The economic model named for this thinker is based on the multiplier effect. This economist argued that increased private saving leads to a higher interest rate in his refutation of Say's Law, and attacked the Treaty of Versailles in *The Economic Consequences of the Peace*. His theory that increased government spending can cure recessions was applied by Franklin Roosevelt in the Great Depression. For 10 points, name this British economist who advanced his ideas in *The General Theory of Employment, Interest, and Money*.

ANSWER: John Maynard Keynes

004-09-2-05136