

1. A self portrait of this artist wearing a cross on his black tunic and holding a palette can be seen in one of his paintings. He included a cupid holding a mirror in his *Rokeby Venus* and painted the results of the siege of a Dutch town in *The Surrender of Breda*. This artist painted a girl stepping on a dog and a dwarf in a dress as the title attendants of the Infanta Margarita as court painter for Philip IV of Spain. For 10 points, name this Spanish painter of *Las Meninas*.

ANSWER: Diego Velazquez

015-10-18-01101

2. The doctrine of this practice is derived from a conversation between Jesus and Nicodemus in John 3:5. One figure famous for performing this practice called himself a “voice in the wilderness” and was beheaded by Herod Antipas. A now-repudiated doctrine held that infants who died without undergoing this went to limbo. It was practiced by a certain man named John near the River Jordan. For 10 points, name this sacrament in which water washes away original sin.

ANSWER: Baptism

080-10-18-01102

3. These entities are termed “upside down” when they have negative equity. Ones which leave a lump amount left over at maturity are the “balloon” variety. Retired people over the age of sixty-two have the option of obtaining a “reverse” type of them. Freddie Mac and Fannie Mae were created after the Great Depression to start a secondary market for these loans. For 10 points, name these loans backed by houses and other property.

ANSWER: mortgages

015-10-18-01103

4. One character in this novel marries his true love after being disinherited for his earlier relationship with Lucy Steele. Another character in this novel, Fanny, refuses to allow her brother to love her sister-in-law, driving the latter to depart for the cottage of John Middleton. One of this novel’s protagonists enters into a whirlwind romance with John Willoughby, who soon abandons her. This novel resolves with Colonel Brandon and Edward Ferrars respectively marrying Elinor and Marianne Dashwood. For 10 points, name this Jane Austen novel which contrasts Elinor’s good judgment with Marianne’s impulsiveness.

ANSWER: *Sense and Sensibility*

080-10-18-01104

5. This leader was targeted by Operation Verano, which ended after his forces won the Battle of Yaguajay (yah-goo-AH-hay). In honor of the date of his failed attack on the Moncada Barracks, this man named his revolutionary movement after the Twenty-Sixth of July. This leader overthrew Fulgencio Batista (fool-HEN-see-oo buh-TEES-tuh) and was the target of the Bay of Pigs Invasion. This man became ill in 2006, leading him to transfer his duties to his younger brother Raúl. For 10 points, name this ruler who established a Communist regime in Cuba.

ANSWER: Fidel Castro Ruz

079-10-18-01105

6. Clozapine can cause a reduction in the number of these cells. They can be classified according to the presence or absence of granules, and those that contain granules include basophils and neutrophils. One class of these is lymphocytes, which may be natural killer cells, B cells, or T cells, which regulate the immune system. For 10 points, name these cells of the immune system also known as leukocytes.

ANSWER: **white blood cells** [accept **leukocytes** before mention; accept **neutrophils** before "granules"]

024-10-18-01106

7. This man's victories included overcoming a surprise attack at the Battle of Marengo and defeating Tsar Alexander I at the Battle of Austerlitz. This man devised the Continental System as a blockade against Great Britain. The Peninsular War allowed this man to place his brother Joseph on the throne of Spain. This man was sent to St. Helena after he returned to power during the "Hundred Days," which followed his earlier exile to Elba. For 10 points, name this "Emperor of the French" who suffered a final defeat at Waterloo.

ANSWER: **Napoleon** Bonaparte [or Napoleon **Bonaparte**]

080-10-18-01107

8. This word defines a type of computer graphics that codes instructions for drawing, rather than the color of each grid in a pixel. In addition to that alternative to raster graphics, this word also refers to structures such as plasmids that can be used to transfer genetic material, and to hosts that transmit pathogens to other hosts. In physics, this word refers to quantities such as torque and velocity, which require both a magnitude and direction. For 10 points, give this word that is contrasted with scalar.

ANSWER: **vector**

003-10-18-01108

9. This author of the satirical abolitionist tract "Sidi Mehemet Ibrahim on The Slave Trade" used the pseudonym "Silence Dogood" for a series of letters to the *New England Courant*. This man urged colonial cooperation in a cartoon showing a divided snake with the caption "Join or Die," which supported his Albany Plan of Union. With John Adams, this man revised Jefferson's first draft of the Declaration of Independence. For 10 points, name this Founding Father who published *Poor Richard's Almanack* and flew a kite in a lightning storm.

ANSWER: Benjamin **Franklin**

082-10-18-01109

10. Often depicted as bearded man, either green or black in color and swathed like a mummy, this Egyptian deity is credited with the introduction of agriculture. In myth he is drowned and dismembered, only to be resurrected later by his wife. For 10 points, name this god, husband of Isis, an archetype of death and rebirth, who became the Egyptian lord of the dead.

ANSWER: **Osiris**

045-10-18-01110

11. This principle explains why there is decreased solubility or ionization in a molecule through the common ion effect. This principle does not apply after the introduction of a catalyst to a system. Stresses on a system, such as a change in pressure, temperature, or concentration, cause the changes noted by this principle. For 10 points, name this principle named for a Frenchman that describes how a chemical system in equilibrium will respond to changes in order to establish a new equilibrium.

ANSWER: Le **Chatelier's** Principle [or Le **Chatelier-Braun** Principle]

023-10-18-01111

12. This city's West End was demolished to create Government Center in a disastrous 1950s urban renewal project. Frederic Law Olmsted designed the Emerald Necklace network of parks for this city, and its light rail Green Line is the oldest still-operating subway in America. This city's Shawmut Peninsula was more than doubled in size with land reclamation, adding areas such as the Public Garden and the Back Bay with land from Beacon Hill. For 10 points, name this home of the Big Dig and largest city in Massachusetts.

ANSWER: **Boston**

082-10-18-01112

13. Elias Boudinot edited this people's newspaper, the *Phoenix*. With commissioners William Carroll and John F. Schermerhorn, this people signed the Treaty of New Echota (eh-CHO-tah). The Supreme Court ruled that this people was a "domestic dependent nation" in the case of this people versus Georgia. Sequoyah (sih-KOY-ah) created this people's alphabet. Andrew Jackson used the Indian Removal Act to justify the relocation of this people to Oklahoma. For 10 points, name this Native American tribe that marched along the Trail of Tears.

ANSWER: **Cherokee**

080-10-18-01113

14. A powdered form of this element is extracted via the Wöhler process. This element's oxide is usually extracted from bauxite via the Bayer process, and occurs naturally as corundum. Industrially, the Hall-Héroult process produces this most abundant metal in the Earth's crust. For 10 points, name this element with atomic number thirteen that is used to make soda cans.

ANSWER: **aluminum** [or **aluminium**; or **Al**]

079-10-18-01114

15. Walker Evans collaborated with author James Agee on a book photographing families affected by this event, entitled *Let Us Now Praise Famous Men*. Margaret Bourke-White's *You Have Seen Their Faces* also shows photos of people experiencing this historical event. One of the most iconic images of the effects of this event depicts Florence Owens Thompson, in Dorothea Lange's photo *Migrant Mother*. For 10 points, identify this large-scale economic catastrophe of the 1930s.

ANSWER: the Great **Depression** [or the **Dust Bowl**]

019-10-18-01115

1A. Name the measure that is the square root of the variance and has a value of 68.2% for its first case on a normal distribution.

ANSWER: **standard deviation**

1B. What English poet wrote *The Rime of the Ancient Mariner* and "Kubla Khan"?

ANSWER: Samuel Taylor **Coleridge**

2A. What English number is indicated by the words "viginti" (wehg-IN-tee) in Latin, "veinte" (VEN-tay) in Spanish, and "vingt" (VEN-tay) in French?

ANSWER: **twenty**

2B. What actor starred with Mark Wahlberg in *The Other Guys*, in addition to roles like Ron Burgundy in *Anchorman* and Ricky Bobby in *Talladega Nights*?

ANSWER: Will **Ferrell**

3A. This is a 10-second calculation question. What is the mean of the set of numbers {1, 3, 5, 7}?

ANSWER: **4**

3B. This is a 10-second calculation question. Solve the system of equations  $2x + 2y = 8$  and  $2x - 2y = 4$ .

ANSWER: **x = 3** and **y = 1**

4A. Name the literary form used by *The Faerie Queene* and *Pilgrim's Progress* that uses symbolism in a story to give a message for outside the story.

ANSWER: **allegory**

4B. What Elton John musical won the 2009 Tony Award for Best Musical and tells the story of a boy caught up in the 1984-1985 U.K. coal miners' strike who longs to be a ballet dancer?

ANSWER: **Billy Elliot the Musical**

5A. This is a 20-second calculation question. If a cube's surface area and volume are the same, what is the length of one of the cube's sides?

ANSWER: **6**

5B. This is a 20-second calculation question. What is the probability of drawing a black sock from a drawer which contains 4 black socks, 2 orange socks and thrice as many red socks as the sum of the black and orange socks?

ANSWER: **1/6** [or **1:6**]

6A. What name is given to the government that led Germany from 1918 until 1933?

ANSWER: **Weimar** Republic

6B. What Spanish Cubist painter went through a Blue Period and created such works as *Three Musicians* and *Guernica*?

ANSWER: Pablo Ruiz **Picasso**

7A. This is a 30-second calculation question. What is the difference between 25 squared and 26 squared?

ANSWER: **51**

7B. This is a 30-second calculation question. If the hypotenuse and longest leg of a right triangle have a difference of exactly one, what are their lengths if the short leg of the right triangle is of length 9?

ANSWER: **40** and **41** [accept in any order]

8A. What longtime Democratic congressman from Harlem has been facing ethics and tax evasion charges since 2008?

ANSWER: Charles Bernard “Charlie” **Rangel**

8B. What Austrian psychologist founded psychoanalysis, developed the idea of the id, ego, and superego, and wrote *The Interpretation of Dreams*?

ANSWER: Sigmund **Freud** [or Sigismund Schlomo **Freud**]

9A. The *Odyssey* and the *Iliad* are traditionally thought to have been authored by what blind poet?

ANSWER: **Homer**

9B. Considered the first microbiologist, name the sixteenth century Dutchman who suffered from myoclonus and observed bacteria with a microscope made from soda glass.

ANSWER: Antonie Philips van **Leeuwenhoek** (LEY-vuhn-hook)

10A. Barbara McClintock won a 1983 Nobel prize for discovering these sequences of DNA that can move to different positions in the genome and were nicknamed “jumping genes”?

ANSWER: **transposons**

10B. The Boyana church is found in which largest city and capital of Bulgaria?

ANSWER: **Sofia**

1. One artist sculpted this figure from a slab of marble abandoned forty years earlier by Agostino di Duccio. Another sculpture of this figure was the first freestanding nude sculpture in the Renaissance. Donatello's bronze sculpture of this figure depicts him holding his enemy's sword and standing on his enemy's head. For 10 points, name this Israelite king depicted in marble by Michelangelo with a slingshot in hand, about to fight Goliath.

ANSWER: **David**

080-10-18-01117

2. One work by this composer may have been written for his love interest, Therese Malfatti, and is less commonly known as his *Bagatelle in A Minor*. Another work by this composer received its nickname from the poet Ludwig Rellstab, who was reminded by that piece of Lake Lucerne at night. A symphony by this man ends with voices singing the words to a Schiller poem, and is nicknamed "Choral." For 10 points, name this German composer of *Für Elise* and the *Moonlight Sonata*, whose ninth symphony is set to the poem "Ode to Joy."

ANSWER: Ludwig van **Beethoven**

023-10-18-01118

3. This country's first king was the Bavarian prince Otto. Thousands of this country's citizens were killed in the Massacre of Chios (KEY-os). During this country's war of independence, the Society of Friends was led by Alexander Ypsilanti (ip-suh-LAN-tee), and that war ended with this country gaining independence from the Ottoman Empire in 1830. This nation carries on a tradition of democracy begun in ancient times by Solon and Cleisthenes (KLICE-thuh-nees). For 10 points, name this country that hosted the first modern Olympics in 1896 in Athens.

ANSWER: **Greece** [or **Hellas**; or **Hellinic** Republic; or **Ellada**; or **Elliniki** Dimokratia]

079-10-18-01119

4. For a particle, this quantity is equal to the quotient of Planck's (PLONKS) constant and the wavelength. According to Noether's (NOY-turz) Theorem, the conservation of this quantity is due to the fact that the laws of physics are the same everywhere in space. The net force on a body is equal to the time derivative of this quantity. For 10 points, name this product of a body's mass and velocity.

ANSWER: linear **momentum** [do not accept "angular momentum"]

079-10-18-01120

5. The RAN protein is used for the transport of materials in and out of the pores of this organelle. Observed with Hoechst and DAPI staining, this organelle, when found in tumors, contains Cajal bodies. Continuous with the rough endoplasmic reticulum, this organelle is the site of histone proteins, as well as the production of ribosomes and transcription of DNA. Not found in prokaryotes, for 10 points, name this "control center" of the cell.

ANSWER: **nucleus** [or **nuclei**]

079-10-18-01121

6. This parameter is the only parameter in the Lorentz factor. Cerenkov ("CHAIR"-en-kov) radiation is produced by objects exceeding this parameter. This parameter is equal to one over the square root of the product of the permittivity of free space and permeability of free space. It is squared and multiplied by mass in an equation for rest energy developed by Einstein. For 10 points, name this theoretical limit on the speed of an object, which in a vacuum is equal to three times ten to the eighth meters per second.

ANSWER: **speed of light** [or **c**]

003-10-18-01122

7. Each part of these objects is examined once in a process called traversal. A specific type of these objects is modified by the DSW Algorithm. Exemplified by scapegoat and red-black types, these objects, when not completely sorted, are heaps. In the binary search type of these objects, the left side has nodes with keys that are less than the keys on the right. For 10 points, name these data structures from computer science that consist of root and leaf nodes.

ANSWER: **trees**

079-10-18-01123

8. Some women in this novel snack on a husband's gift of bonbons and observe a bilingual parrot. The protagonist of this novel attends the races with Mrs. Highcamp and is moved to tears by Madame Reisz's performance of a Chopin impromptu. Adèle Ratignolle's fidelity contrasts with this novel's protagonist, who cuckolds Léonce by carrying on an affair with Alcée. This book ends when the protagonist is rejected by her true love, Robert Lebrun, and drowns herself. For 10 points, name this novel about Edna Pontellier's arousal, a work of Kate Chopin.

ANSWER: *The **Awakening***

079-10-18-01124

9. This President defused the Newburgh Conspiracy and, in another post, was nearly replaced by Horatio Gates due to the Conway Cabal. As President, he met with a French ambassador who tried to draw him into war with Britain named Citizen Genêt (JUH-nay). His farewell address discouraged foreign alliances. The signing of Jay's Treaty and the Whiskey Rebellion occurred during the Presidency of this victor at Trenton and Yorktown. For 10 points, name this man who appointed Alexander Hamilton as Secretary of the Treasury as the first President.

ANSWER: George **Washington**

079-10-18-01125

10. This biome is either BWh or BWk in the Koppen system, and these areas typically feature xeric (ZEER-ick) soil regimes. Temporary lakes in this environment are playas (PLY-uhs), and this area's high level of evapotranspiration may lead to salt flats. They are often created due to a rain shadow effect from upwind mountains. For 10 points, name this arid biome which typically experiences less than 10 inches of rain a year, examples of which include the Gobi and the Sahara.

ANSWER: **deserts**

082-10-18-01126

11. This writer imagined a conversation between God, Job, and Job's wife in *A Masque of Mercy*. Mary and Warren talk about the titular laborer, Silas, in a poem from this man's collection *North of Boston*, "The Death of the Hired Man." He claimed that "if it had to perish twice / I think I know enough of hate" in "Fire And Ice" and ended another poem with the repeated line "And miles to go before I sleep." For 10 points, name this American poet of "Stopping By Woods on a Snowy Evening."

ANSWER: Robert Lee **Frost**

082-10-18-01127

12. In one poem, this man wonders if the title figure seeks "the plashy brink" or "marge of river wide" and concludes confidently that God will "lead" his "steps aright." In that poem, this man asks the title bird "Whither... thou dost thou pursue thy solitary way?" This poet opened another work by considering "him who in the love of nature holds communion with her visible forms." For 10 points, name this American poet of "To a Waterfowl" who also wrote a "meditation on death" called "Thanatopsis."

ANSWER: William Cullen **Bryant**

080-10-18-01128

13. One character in this novel is castrated after an incident arising from an unlocked gate. Another character in this novel marries Herbert Head, which is one factor in her brother's decision to commit suicide by jumping into the Charles River. Those characters are the mentally impaired Benjy, the promiscuous Caddy, and the neurotic Quentin, all of whom are members of the Compson family. For 10 points, name this novel by William Faulkner.

ANSWER: *The Sound and the Fury*

024-10-18-01129

14. Reverend Samuel Cadman dubbed one of these works the "Cathedral of Commerce;" Cass Gilbert created that one for Frank L. Woolworth. The father of these works coined the phrase "Form follows function." Dankmar Adler designed one of these for Elias Wainwright along with the father of these buildings, Louis Sullivan. For 10 points, name these extremely tall buildings that dominate urban skylines.

ANSWER: skyscrapers

080-10-18-01130

15. One of this man's short stories centers on an apparatus that inscribes men's bodies with the law they are accused of breaking. This author of "In the Penal Colony" wrote a novel containing the "Parable of the Man Before the Law"; in that novel, Joseph K. is executed despite committing no crime. One of this author's characters dies from an apple lodged in his back; that character, Gregor Samsa, discovers his transformation into a disgusting insect. For 10 points, name this Czech author of *The Trial* and "The Metamorphosis."

ANSWER: Franz Kafka

080-10-18-01131

1. Ron Shelton made a documentary about this man entitled “[This man] Rides the Bus;” that documentary covers this man’s year with the Birmingham Barons. Currently an owner of the Charlotte Bobcats, this man scored 38 points in his “Flu game,” the fifth game of the finals series against the Utah Jazz. This player took one season off of basketball to play minor league baseball and, in 2001, returned to play for the Washington Wizards.. For 10 points, name this legendary player who led the Chicago Bulls to six championships.

ANSWER: Michael **Jordan**

080-10-18-01132

2. *The Castle of Perseverance* is one of the earliest examples of this genre, which also includes a play that ends with the title character receiving the sacraments and is accompanied by Good Deeds, but not Beauty or Strength, into the afterlife. Often associated with miracle or mystery plays, this genre is exemplified by the 15th century play *Everyman*. For 10 points, name this medieval genre of theatre which uses personifications of sins and virtues to convey strong messages to its audience.

ANSWER: **morality play**

083-10-18-01133

3. Salvatore Giunta will soon receive the medal of honor for actions in this country. Operation Mushtarak was recently launched in this country. An issue of *Rolling Stone* brought about the downfall of Stanley McChrystal’s command in this country, resulting in his replacement by David Petraeus. US operations in this country began with Operation Enduring Freedom. For 10 points, name this country currently led by Hamid Karzai.

ANSWER: **Afghanistan**

080-10-18-01134

4. This artist's direct influences included the theosophical revival meetings of Jiddu Krishnamurti and the instruction of older painter Thomas Hart Benton. He was married to fellow painter Lee Krasner during the time when he painted his iconic works *Full Fathom Five* and *Lavender Mist*. He called his technique "action painting," which became a major subfield of the abstract expressionist movement. For 10 points, name this painter who was known as "Jack the dripper" for his unorthodox methods.

ANSWER: Paul Jackson **Pollock**

019-10-18-01135

5. This agreement was called "the noblest work of our whole lives" by one of its negotiators, Robert Livingston. Its boundaries were in dispute as a result of the lack of specificity of the Third Treaty of San Ildefonso between Spain and France. It was opposed by Talleyrand in France and the Federalist Party in the United States. This agreement led to the Lewis and Clark expedition, whose goal was to explore the newly acquired territory. For 10 points, name this 1803 purchase in which the United States acquired land from France.

ANSWER: **Louisiana Purchase**

024-10-18-01136