



1. The speaker of this poem tells the addressee, “An hundred years should go to praise thine eyes, and on thy forehead gaze.” The second of this poem’s three stanzas concludes, “The grave’s a fine and private place, but none I think do there embrace.” Concluding, “though we cannot make out sun stand still, yet we will make him run,” this poem states that the addressee’s reluctance to go to bed would not be problematic “had we but world enough, and time.” For 15 points, name this seduction poem by Andrew Marvell.

ANSWER: “**To His Coy Mistress**”

014-12-85-09101

BONUS: What Aztec god was depicted as a feathered serpent?

ANSWER: **Quetzalcoatl**

015-12-85-0910-1

2. In one ballet by this composer set at the Shrovetide Fair, the Moor hacks to death the title puppet, who was brought to life by his wizard owner. This composer of *Petrushka* also composed a ballet in which Kashchei the Immortal is defeated by Prince Ivan with the help of the title magical creature. This composer sparked riots with the premiere of his ballet in which a girl dances herself to death in a pagan ritual. For 15 points, name this 20th-century Russian composer of *The Firebird* and *The Rite of Spring*.

ANSWER: Igor **Stravinsky**

014-12-85-09102

BONUS: What point guard for the Oklahoma City Thunder played at UCLA with Kevin Love?

ANSWER: Russell **Westbrook**

015-12-85-0910-1

3. A character in Paul Auster’s *The Brooklyn Follies* tries to forge the first page of this novel. In it, Governor Bellingham is unaware that his sister Mistress Hibbins engages the occult. One character in it is told that she was plucked from the rose bush that grew by the prison door. Before Roger Chillingworth is revealed to be alive, the protagonist of this novel is imprisoned for having the illegitimate child Pearl with the minister Arthur Dimmesdale. For 15 points, name this Nathaniel Hawthorne novel about the adultery of Hester Prynne.

ANSWER: *The* **Scarlet Letter**

015-12-85-09103

BONUS: What effect, in which a magnetic field is applied perpendicular to a wire, demonstrates that electrical charge carriers are negatively charged?

ANSWER: **Hall effect**

132-12-85-0910-1

4. Ramsey Clark brought a lawsuit alleging members of Skull and Bones had stolen this man's remains from Fort Sill. This man fought with Mangas Coloradas and Cochise (CO-cheese). This man's name was the codename for the raid on Abbottabad that took down Osama bin Laden. This man led a guerilla campaign against the Mexicans and Americans until he was forced to surrender to Nelson Miles in 1886. For 15 points, name this Apache warrior whose name was popular with US paratroopers in World War II.

ANSWER: **Geronimo** [or **Goyathlay**]

015-12-85-09104

BONUS: What President served two non-consecutive terms and was the favorite candidate of the Mugwumps during the 1884 election?

ANSWER: Stephen Grover **Cleveland**

030-12-85-0910-1

5. This sculptor used a single block of marble to carve a rectangular depiction of two figures embracing, and another of his works consists of a stack of seventeen rhomboidal units. This sculptor of *The Endless Column* made seven marble copies and nine bronze copies of an abstract sculpture of which the smooth and elongated form represents the motion of the title animal. For 15 points, name this Romanian sculptor of *Bird in Space*.

ANSWER: Constantin **Brancusi**

014-12-85-09105

BONUS: Name this symbol used to represent the fine structure constant and that denotes an individual in a community with the highest rank, which can be a male.

ANSWER: **alpha**

066-12-85-0910-1

6. One story relates that this god instigated the death of the Theban king Pentheus by exposing him to some raving Maenads. According to another story, he fell in love with Ariadne (AY-ree-AD-nee) after she was abandoned by Theseus. After his mother Semele was killed by seeing Zeus in his godly form, this god was sewn into the thigh of Zeus. He is often depicted with grapes. For 15 points, name this equivalent of Bacchus, a Greek god of wine and madness.

ANSWER: **Dionysus** [or **Bacchus** until mentioned]

015-12-85-09106

BONUS: What function takes two vectors and returns a scalar proportional to the magnitudes and cosine of the angle between the vectors?

ANSWER: **dot product** [prompt on partial; do not accept "cross product"]

132-12-85-0910-1

7. The operator for this quantity is equal to negative  $i$  times  $\hbar$  times quantity  $r$  cross grad. This quantity is equal to the time derivative of the torque. Kepler's equal area law can be derived from the conservation of this quantity, which is also responsible for the fact that a skater spins faster when they pull their arms in. This quantity is equal to the moment of inertia times the angular velocity. For 15 points, name this quantity symbolized  $L$ , which is a rotational analogue the product of mass and velocity.

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

048-12-85-09107

BONUS: What biomolecule with a cloverleaf-like secondary structure carries new amino acids to the ribosome during protein synthesis?

ANSWER: **tRNA** [or **transfer RNA**]

104-12-85-0910-1

8. The protagonist of this work is forced to drink soup containing live frogs and urine by the other children. Later, the protagonist discovers the ring finger of Sister Dorothea in a field, for which he is convicted of murdering her. The protagonist chooses to stop aging on his third birthday, when he receives the title object. For 15 points, name this novel in which Oskar Matzerath cherishes a certain instrument, a work of Günter Grass.

ANSWER: *The **Tin Drum*** [or *Die **Blechtrommel***]

014-12-85-09108

BONUS: What property of a star is a measure of light energy emission and is not to be confused with stellar brightness?

ANSWER: **luminosity**

104-12-85-0910-1

9. This man's name is used as an alternate name for the atomic mass unit, especially when describing proteins. According to one law of his, the masses of an element which go into forming two different compounds with another element will make a ratio of small whole numbers. This formulator of the law of multiple proportions also names a law for computing the total pressure of a system with multiple components. For 15 points, identify this namesake of a law of partial pressures, an English chemist who proposed the atomic theory.

ANSWER: John **Dalton**

132-12-85-09109

BONUS: This is a 30-second calculation question. What is the inverse of the function  $f(x) = 3x^3 - 4$ ?

ANSWER:  $f^{-1}(x) = \frac{(x+4)^{1/3}}{3}$  (f inverse of x = quantity x + 4 divided by 3, all raised to the one third power) [or  $f^{-1}(x) = \text{cube root of quantity } (x+4)/3$ ]

080-12-85-0910-1

10. This language uses measure words like "ge" in between numerals and nouns in phrases with meanings like "five cars" and "two knives." In this language, one sound can have 4 different meanings depending whether it is pronounced with a "high," "rising," "low," or "falling" tone. The Wade-Giles system was a romanization system for this language, though it is now largely supplanted by pinyin. This language, which competes with Cantonese, has the most native speakers of any in the world. For 15 points, name this language spoken in Beijing.

ANSWER: Mandarin **Chinese** [or **Mandarin Chinese**]

080-12-85-09110

BONUS: Wikileaks founder Julian Assange is living in what Rafael Correa-led South American country's London embassy?

ANSWER: **Ecuador**

030-12-85-0910-1

11. This is the fraction of intensity of unpolarized light transferred through an ideal linear polarizer. In a double-slit experiment, this number is added to the integer n and the quantity is multiplied by lambda to find the condition for destructive interference. Multiplying this number by the radius of curvature of a spherical lens gives the focal length. A medium of refractive index 2 would have light travelling through it at this fraction of c. For 15 points, name this figure, which is also multiplied by m v squared to give kinetic energy.

ANSWER: **1/2** [or **one-half** or **0.5** or **50%**]

048-12-85-09111

BONUS: Name the first Indian recipient of the Nobel Prize in Literature, whose works include the novel *The Home and the World* and the poetry collection *Gitanjali*.

ANSWER: Rabindranath **Tagore** [or Rabindranath **Thakur**]

014-12-85-0910-1

12. Takahashi and Yamanaka turned fibroblasts into these cells by using retroviruses to express four genes, including SOX2 and Klf4. "Hematopoietic" ones in the bone marrow give rise to all different kinds of blood cells. These cells are pluripotent, since when one divides, one daughter cell remains one of them while the other becomes something else. Possible applications for these cells include curing Parkinson's disease and muscular dystrophy. For 15 points, name this type of cells whose "embryonic" variety is the subject of controversial but promising research.

ANSWER: **stem cells** [accept more specific answers]

080-12-85-09112

BONUS: This is a 20-second calculation question. Consider a triangle with two sides of lengths 6 and 8, and a third side of unknown length. What is the maximum possible length of the third side, rounded down to the nearest integer?

ANSWER: **13** units

197-12-85-0910-1

13. This poet described a woman who "will be false, ere I come, to two, or three" in a song beginning, "Go and catch a falling star." One of his poems tells the addressee, "Thou'rt slave to Fate, chance, kings, and desperate men, and dost with poison, war, and sickness dwell," insisting, "though some have called thee mighty and dreadful...thou art not so." For 15 points, name this metaphysical poet, one of whose *Holy Sonnets* begins, "Death, be not proud."

ANSWER: John **Donne**

014-12-85-09113

BONUS: This is a 30-second calculation question. In simplest terms, what is the secant of 30 degree angle?

ANSWER: 2 times root 3 over 3 [or **two-thirds root three**]

020-12-85-0910-1

14. This thinker studied the mixture of features from patrilineal and matrilineal cultures, along with the practice of potlatch, in the Kwakiutl tribes. He attacked pseudoscientific theories of racial superiority and advocated the methodology of cultural relativism in his book *The Mind of Primitive Man*. He founded the anthropology department at Columbia University, where he taught Margaret Mead and Ruth Benedict. For 15 points, name this German-born "Father of American Anthropology."

ANSWER: Franz **Boas**

014-12-85-09114

BONUS: What is the term for the electrode of an electrochemical cell at which reduction occurs?

ANSWER: **cathode**

132-12-85-0910-1

15. One phylum of animals commonly denoted by this term has an a structure that ends in flame cells and is used to filter metabolic waste; that structure is the protonephridia. In computing, this term applies to malicious programs that don't attach themselves to programs but replicate and spread to other computers. Another phylum of animals denoted by this term possesses a coelem, setae and are segmented. For 15 points, identify these soft-bodied invertebrates that can be found in the phyla Platyhelminthes and Annelida.

ANSWER: **worm**

066-12-85-09115

BONUS: What 1962 film directed by David Lean stars Peter O'Toole as the title Englishman rallying the tribes of the title location against the Turks during World War I?

ANSWER: ***Lawrence of Arabia***

014-12-85-0910-1

16. This team acquired Wayne Gretzky from the Edmonton Oilers in 1988, the same season in which he won his ninth Hart Trophy as the league's Most Valuable Player. In 2012, this team defeated the top-seeded Vancouver Canucks in the opening playoff round and won the Western Conference championship for the second time in their history. After the season, this team re-signed its goalie, Jonathan Quick, to a ten-year contract. For 15 points, name this National Hockey League team in the Pacific division, which defeated the New Jersey Devils to win the 2012 Stanley Cup.

ANSWER: Los Angeles **Kings** [or **Los Angeles** Kings or **LA** Kings]

194-12-85-09116

BONUS: Which member of President Barack Obama's cabinet was held in contempt of Congress in June 2012 due to the controversy over Operation Fast and Furious?

ANSWER: Eric Himpton **Holder, Jr.**

194-12-85-0910-1

17. Disagreement over the spoils system led this party to split into Stalwart and Half-Breed factions. Its first presidential candidate was California explorer and military leader John C. Fremont. The first President from this party faced Stephen Douglas in a series of Senate debates. Ulysses S. Grant was elected President as a member of this party, which gained the nickname "Grand Old Party." For 15 points, name this political party that Thomas Nast represented with an elephant.

ANSWER: **Republican** Party [accept **GOP** or **Grand Old Party** before mentioned]

015-12-85-09117

BONUS: What wife of George Stieglitz is known for her suggestive paintings of dried bones and flowers?

ANSWER: Georgia **O'Keefe**

015-12-85-0910-1

18. This region's flag displays a bauhinia flower with five petals, each with a star in the middle, against a red background. Its tourist attractions include the view from Victoria Peak and rides on the Star Ferry, which travels to Kowloon. This region's constitution, or Basic Law, allows it to maintain its capitalist system until 2047 under the "one country, two systems" policy. For 15 points, name this Special Administrative Region on the south coast of China, which was ceded to the PRC in 1997.

ANSWER: **Hong Kong**, China

080-12-85-09118

BONUS: What Pulitzer-winning David Mamet play depicts a group of real estate salesmen ruthlessly competing with each other for sales?

ANSWER: ***Glengarry Glen Ross***

052-12-85-0910-1

19. The protagonist of this work believes that he is still a man because he "performed his mistakes in the dark." That protagonist finds a dead body in a forest soon after throwing a pine cone at a squirrel. One group in this novel compared to a bunch of mule drivers. Wilson, Jim Conklin, and the "tattered soldier" are members of the 304th in this novel, which follows Henry Fleming's shameful retreat and then his redemption. For 15 points, name this Stephen Crane novel about the American Civil War.

ANSWER: *The* ***Red Badge of Courage***

015-12-85-09119

BONUS: The self-proclaimed country of Western Sahara lies to the northwest of Mauritania and is currently claimed as the southern half of what other African country?

ANSWER: **Morocco**

019-12-85-0910-1

20. This leader ordered the withdrawal of Soviet forces from Afghanistan. He instituted economic reforms known as perestroika and a policy of transparency known as glasnost. This man's resignation allowed the popularly elected-president Boris Yeltsin to assume power. Ronald Reagan addressed this leader in a Berlin speech, telling him to "tear down this wall!" For 15 points, name this leader of the Soviet Union who held power during its dissolution at the end of the Cold War.

ANSWER: Mikhail Sergeyevich **Gorbachev**

015-12-85-09120

BONUS: This is a 30-second calculation question. What is the sum of the first seven terms of the Fibonacci sequence?

ANSWER: **33**

197-12-85-0910-1

21. This process can result in an uneven distribution of cytoplasm between one large cell and several smaller polar bodies. "Crossing over" occurs between nonsister chromatids during this process, which also sees homologous chromosomes zipped up through synapsis. This process begins with one diploid cell and, through a pathway including two rounds of cytokinesis, results in four haploid cells. For 15 points, name this form of cell division that produces gametes and is contrasted with mitosis.

ANSWER: **meiosis** [or **oogenesis**; or **spermatogenesis**; prompt on **prophase I**]

080-12-85-09121

BONUS: Francis II was the last person to hold what political position, which disappeared in August 1806 after the Battle of Austerlitz?

ANSWER: **Holy Roman Emperor**

190-12-85-0910-1

22. The density of this quantity for an electromagnetic field is found by crossing the electric and magnetic field's intensities, which yields the Poynting vector. For a sinusoidal wave, this quantity is equal to the amplitude squared. Another form of this quantity can be found to equal current squared times resistance by using Ohm's law on the relation voltage times current. The average form of this quantity is equal to work divided by time. For 15 points, identify this term that denotes the rate at which energy is used, transferred or converted.

ANSWER: **power**

066-12-85-09122

BONUS: In which U.S. state are the cities of Parma and Dayton found?

ANSWER: **Ohio**

189-12-85-0910-1

23. This expression was first coined, in German, in the Goethe (GUR-tuh) play *Clavigo* and was used to title a Johann Strauss waltz in 1885. In contemporary times, it is tattooed on Zac Efron's right hand, and Ervin McKinness tweeted it before dying in a drunk-driving crash. This expression first became a catchphrase after it was shouted in "The Motto" by Drake. For 15 points, identify this popular hashtag of 2012, which refers to the number of chances one has at life.

ANSWER: **#YOLO** [or **You Only Live Once**]

019-12-85-09123

BONUS: What ancient Persian prophet told of a cosmic struggle between the good Ahura Mazda and the evil Ahriman in his namesake religion?

ANSWER: **Zoroaster** [or **Zarathustra**; or **Zartosht**]

104-12-85-0910-1

24. One king of this country built a stone pyramid called the Bakong. A later king of this country built a sandstone shrine called Banteay Srei (BAN-tay SRAY). This country ruled by Indravarman I and Jayavarman V was later ruled by a dictator who sought to return to "Year Zero" and established the Killing Fields. This country once ruled by Pol Pot is home to the temple complex of Angkor Wat. For 15 points, name this Southeast Asian country taken over in the 1970s by the Khmer Rouge.

ANSWER: Kingdom of **Cambodia** [or Preahreacheanachakr **Kampuchea**]

014-12-85-09124

BONUS: This leader made his countrymen adopt surnames as part of his secular Six Arrows Program put in place after securing Anatolia via the Treaty of Sevres.

ANSWER: Mustafa **Kemal** Pasa [or Kemal **Ataturk**]

153-12-85-0910-1

25. Antoine-Jean Gros painted this man visiting plague victims at Jaffa. A depiction of this man commonly shown in biographies includes a clock displaying the time of 4:13 AM and a ruffled white-on-blue outfit, suggesting that this man has been working through the night. In another painting, he is pointing to the left while looking towards the viewer and riding a bucking horse in rocky terrain. For 15 points, identify this historical figure depicted "in his study at the Tuileries" and "crossing the Alps" by Jacques-Louis David.

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

019-12-85-09125

BONUS: This is a calculation question. The angles of a quadrilateral are an arithmetic progression, with smallest angle measuring 60 degrees. Find the next smallest angle.

ANSWER: **80** degrees

174-12-85-0910-1



26. These animals can climb or escape tight spaces with the inefficient "concertina" movement. Some of these animals have pits between their eye and nostril that allow them to see the infrared radiation from prey. These organisms collect air particles on their tongue, which then hits Jacobson's Organ to allow them to smell. Their mobile jaw bones allow them to swallow prey larger than their heads. For 15 points, name these insidious reptiles that include pit vipers and cobras.

ANSWER: snake [or serpents; or specific types, such as vipers; or cobras; or pythons; etc.; prompt on reptiles]

080-12-85-09126

BONUS: The K-T boundary marks the end of what period, following the Jurassic, in which dinosaurs became extinct?

ANSWER: Cretaceous period

192-12-85-0910-1

27. This poet wrote, "O all the instruments agree the day of his death was a dark cold day" in his "In Memory of W. B. Yeats." This poet claimed, "We must love one another or die" in a work beginning, "I sit in one of the dives on Fifty-Second Street uncertain and afraid." He was inspired by Brueghel's *Landscape with the Fall of Icarus* to write a poem stating, "About suffering they were never wrong, the Old Masters." For 15 points, name this British poet of "September 1, 1939" and "Musee des Beaux Arts."

ANSWER: W. H. Auden [or Wystan Hugh Auden]

014-12-85-09127