

1. This author wrote a novel set in the fictional South American nation of Costaguana which features the silver mining baron Señor Gould. In addition to *Nostramo*, he wrote a book in which the title character abandons the *Patna*, which, like his most famous story, is narrated by Charlie Marlow. For 10 points, name this Polish-born British author of *Lord Jim* who detailed the corruption and death of Mr. Kurtz in *Heart of Darkness*.

ANSWER: Joseph **Conrad** [or Józef Teodor Konrad **Korzeniowski**]

082-10-20-06101

2. One song cycle by this composer sets poems such as "In Haven (Capri)," "Where Corals Lie," and "The Swimmer" to music. That work is *Sea Pictures*. One of this composer's works is based on John Newman's poem about the last moments of a man's life. Another of this composer's works includes an Allegro di molto section "G.R.S." that depicts George Robertson Sinclair's bulldog swimming in the River Wye. Those works are *Dream of Gerontius* and *The Enigma Variations*. For 10 points, name this composer of *Pomp and Circumstance*.

ANSWER: Edward **Elgar**

030-10-20-06102

3. One analogue of this law for another quantity is called Amagat's law, and its namesake also names the atomic mass unit, and contributed to stoichiometry when he stated that elements combine in a ratio of whole numbers. Used to calculate concentrations of component elements, name, for 10 points, this law of chemistry named for an English scientist that states that the force exerted by a gas is equal to the sum of the forces of each component gas.

ANSWER: **Dalton's** law of partial pressures

081-10-20-06103

4. This painting, which depicts a scene in the Alcázar Palace, shows its artist wearing a black robe with a red cross and holding an easel in his left hand. Its artist's patrons are depicted in the mirror at the rear center of this work. Don José Nieto stands in the doorway in the rear of this painting, which also depicts one of the titular figures offering a small red cup to the central child. A large massif and dwarf also stand near the Infanta Margarita in, for 10 points, what 1656 painting by Diego Velasquez?

ANSWER: *Las **Meninas*** [or *The **Maids of Honor***; or *The **Ladies in Waiting***]

026-10-20-06104

5. This player was the first rookie to win the NBA Skills Challenge. In a commercial for his signature "adiZero" shoes, this player watches Ken Jeong founder atop a "lady pyramid." This player's invalidated SAT score voided a John Calipari-coached team's run to the NCAA championship game. For 10 points, name this former Memphis star who currently dishes assists to Joakim Noah as point guard for the Chicago Bulls.

ANSWER: Derrick Martell **Rose**

026-10-20-06105

6. One of this man's stories is narrated by an ape who learns to be human so he can escape captivity, while another details a torture machine that inscribes its sentence on the victim's skin. In addition to "A Report To An Academy" and "In The Penal Colony," he wrote a novel where "someone must have been telling lies about Joseph K," *The Trial*. For 10 points, name this Czech author who depicted Gregor Samsa's transformation into a giant insect in *The Metamorphosis*.

ANSWER: Franz **Kafka**

082-10-20-06106

7. These writings were first published in *The Independent Journal*. One figure who wrote essays opposing this project was George Clinton. The best-known of these essays claimed that factionalism would be easier to prevent in a large, strong republic. Numbering eighty-five in total, they were all signed "Publius" and advocated replacing the Articles of Confederation. For 10 points, name this series of papers in which John Jay, James Madison, and Alexander Hamilton urged ratification of the United States Constitution.

ANSWER: **Federalist** Papers [or *The Federalist*]

082-10-20-06107

8. VST is a commonly used plugin format for processing tools of this sort of data. Pulse Code Modulation is a common technique for digitizing it. One way of encoding this sort of data is Vorbis, which is stored in an Ogg container format. However a more common format is AAC. Effects. One optical disk that stores this sort of data uses a 44.1 kilohertz sampling rate. For 10 points, identify this sort of multimedia that is often stored in an MP3 file and of which an important example is music.

ANSWER: **audio** [or **sound**; or **acoustic**; prompt on **music** before mentioned; accept any reasonable equivalent]

001-10-20-06108

9. A series of pamphlets written by this man against William Wood's copper coinage was called *Drapier's Letters*, and the debate between the Moderns and Ancients was satirized in this man's "The Battle of the Books," which was placed at the beginning of his *A Tale of a Tub*. This author's works also include the essay "A Modest Proposal," and a novel in which the titular surgeon travels to Lilliput. For 10 points, name this author of *Gulliver's Travels*.

ANSWER: Jonathan **Swift**

081-10-20-06109

10. In a novella by this author, a man relates to train passengers how he killed his wife because of her affair with a violinist. This author of *The Kreutzer Sonata* wrote a story in which a fall from a ladder leads to the slow and agonizing death of Ivan Ilyich. He created Pierre Bezukhov, a man who thinks he's destined to kill Napoleon. In another novel by this man, the title character has an affair with Count Vronsky before jumping in front of a train. For 10 points, name this Russian author of *War and Peace* and *Anna Karenina*.

ANSWER: Leo **Tolstoy**

015-10-20-06110

11. One type of this process employs a band of Teflon that spins, and compounds that can defy this process are called azeotropes. A type of this process used on components that vary from each other in a certain property by 25 degrees is called the "fractional" type, and a principle law that governs this process is Raoult's law. For 10 points, name this physical process used in chemistry whereby components of a mixture are separated based on their boiling points.

ANSWER: **distillation**

081-10-20-06111

12. Along with "contingency" and "solidarity," this quality titles a Richard Rorty work. This quality in a sentence can be denoted by a backwards question mark. Its "dramatic" variety occurs in literature when the audience knows something unknown to the characters. The "verbal" form of this quality is similar to sarcasm. For 10 points, name this quality, a difference between what is stated and what is implied.

ANSWER: **irony**

080-10-20-06112

13. This law was ruled to not apply to working on roads in Florida in the decision to the case *Butler v. Perry*. One application of this amendment was its use in *Bailey v. Alabama* to overturn Alabama's peonage laws. This amendment was the first of a group that became known as the Reconstruction Amendments. For 10 points, identify this amendment to the U.S. constitution that was passed just after the end of the Civil War in 1865 and forbade slavery.

ANSWER: **Thirteenth** Amendment

081-10-20-06113

14. This nation's capital contains the Olaya District, and is found on the central Nejd plateau. This country is home to Ghawar, the world's largest conventional oil field, and Aramco is its national oil company. It borders both the Red Sea and Persian Gulf, and a city in this country is home to the Ka'aba. It's southernmost portion is the massive sand desert Rub 'al Khali, or the "Empty Quarter". For 10 points, Mecca and Medina are found in this Islamic monarchy with capital at Riyadh, which occupies most of the Arabian Peninsula.

ANSWER: Kingdom of **Saudi Arabia**

082-10-20-06114

15. This city was the inspiration for Ernest Burgess's concentric zone model of city growth. It contains a toll road known as the "Skyway", and this city's namesake river had its flow reversed in the early 20th Century as a sewage control measure. Home to Millennium Park and an 1893 World's Fair famous for its "White City", the downtown configuration of this city's elevated railways name its central business district, the Loop. For 10 points, name this "windy" city on Lake Michigan, the largest in Illinois and the entire Midwestern US.

ANSWER: **Chicago**

082-10-20-06115

1A. What term is represented by a capital "I" and is used in physics to refer to the change of momentum?

ANSWER: **impulse**

1B. Name the theory of chemistry that focuses on how molecules interact in determining reaction rates. It is also the name used to describe elastic or inelastic interactions between two objects.

ANSWER: **Collision** Theory [or **collisions**]

2A. Name the school of Buddhism whose name means "way of the elders" and which is older than Mahayana Buddhism.

ANSWER: **Theravada** Buddhism

2B. Played by Wayne Knight, what United States Postal Service employee served as the friend of Kramer and the antagonist of Jerry on the sitcom *Seinfeld*?

ANSWER: **Newman**

3A. This is a 10-second computation question. What is the geometric mean of the list 2,2,16?

ANSWER: **4**

3B. This is a 10-second calculation question. What is the probability of choosing a collection by Chekhov if your bookshelf contains 8 Chekhov collections, 5 Pushkin collections and 7 copies of the novel *The Last of the Mohicans*?

ANSWER: **2/5**

4A. Name this type of market failure whose best-known example is pollution, in which the effects of a transaction spill over to an uninvolved third party.

ANSWER: **externality**

4B. Name the Republican candidate who claimed that Dearborn, Michigan was run under Sharia Law before losing the Nevada race to Harry Reid.

ANSWER: Sharron **Angle**

5A. This is a 20-second calculation question. What zeroes do the quadratic equations $x^2 + 6x + 5$ and $x^2 + 2x - 3$ have in common?

ANSWER: $x =$ **-1**

5B. This is a 20-second computation question. If vector u has components 1.5, and $3/2$ square roots of 3 and vector v has components -2.5, and 2.5 square roots of 3, what is the angle between u and v in degrees?

ANSWER: **60**

6A. What French monarch was known as the "Sun King" for his opulence in constructing the palace of Versailles?

ANSWER: **Louis XIV** of France [prompt on **Louis**]

6B. Which part of the Earth is found just above the lithosphere in the mantle? Plates in the crust move about on top of this region, leading to disasters like the 1960 Chilean earthquake.

ANSWER: **asthenosphere**

7A. This is a 30-second calculation question. What is the midpoint of a line segment with equation $y = 1$, initial point (0, 1) and with the end point 10 units away from the initial point?

ANSWER: **(5, 1)**

7B. This is a 30-second calculation question. What is the volume of a half-sphere with radius 6 in terms of pi?

ANSWER: **144 pi**

8A. Name the American poet who wrote the poems "Snow-Bound" and "Barbara Frietchie."

ANSWER: John Greenleaf **Whittier**

8B. In what country did a recent plan to raise the retirement age to 62 cause striking and oil shortages?

ANSWER: **France**

9A. Goldbach's Conjecture states that every even integer greater than two can be written as the sum of two of them. Name these numbers whose only divisors are one and themselves.

ANSWER: **prime** numbers [or **primes**]

9B. Chromatin condensation occurs in what first stage of mitosis?

ANSWER: **prophase**

10A. What English Enlightenment philosopher wrote about the mind as a tabula rasa in *An Essay Concerning Human Understanding* and also wrote *Two Treatises on Government*?

ANSWER: John **Locke**

10B. Cepheid variables fall into what class of astronomical objects that allow astronomers to calculate long distances because they have a known luminosity?

ANSWER: **standard candles** [prompt on **candles**]

1. One text that provides information about this myth system is the Chilam Balam, while a more notable text describes an underworld that is situated by a river of blood, and is called Xibalba. That region was visited by this myth system's Hero Twins, as detailed in the text Popul Vuh. For 10 points, name this myth system of a Mesoamerican civilization that preceded the Aztecs.

ANSWER: **Mayan** myth

081-10-20-06117

2. This entity's "champion" was Ezra Meeker, who placed markers along it. Francis Parkman wrote a history of this route. This path was first traveled by a family when used by Joel Walker. One thousand people were led on this route by Marcus Whitman in the "Great Migration." This trail began at Independence, Missouri, where pioneers would take prairie schooners to prepare to travel along it. For 10 points, name this 2,170 mile long trail that went from Missouri to its namesake West Coast state.

ANSWER: **Oregon** Trail

080-10-20-06118

3. This character is beaten up by a man named Maurice after he refuses to pay the prostitute Sunny, after which he goes ice skating with Sally Hayes. The end of the novel in which this character appears sees him decide to let his sister grab for the golden ring on a carousel; that sister's name is Phoebe, and this character's adventures occur after he is expelled from Pencey Prep. For 10 points, identify this protagonist of J. D. Salinger's *The Catcher in the Rye*.

ANSWER: **Holden Caulfield** [accept either name]

081-10-20-06119

4. This man led a regiment in the Franco-Prussian War known as the Army of the Vosges. Another group commanded by this man fought in and won the Battles of Milazzo and Volturno. Those victories for this man came during an expedition against the Kingdom of the Two Sicilies. Cavour and Victor Emmanuel II were supported by this man's military actions. This man led "The Thousand," which was made up of his Redshirts. For 10 points, name this commander during the Risorgimento who became a hero of Italian unification.

ANSWER: Giuseppe **Garibaldi**

081-10-20-06120

5. This group's sophomore album was recorded in a church whose pipe organ can be heard on "Intervention". The most recent effort by this band behind *Neon Bible* was inspired by their leaders' Houston childhood and is titled *The Suburbs*, while an earlier song featured the line "lies, lies, every time you close your eyes". For 10 points, "No Cars Go" is a song by this Canadian indie band led by husband-and-wife Regine Chassagne and Win Butler, whose debut album *Funeral* featured "Rebellion (Lies)".

ANSWER: The **Arcade Fire**

082-10-20-06121

6. Due to damages caused by a door, Matteo da Lecce had to repaint one work in the entrance to this location. That work was originally done by Signorelli and was part of the *Stories of Moses* cycle. Perugino's *The Delivery of the Keys* is located here, but a better-known artist associated with this place created works that depict St. Bartholomew holding his own skin and God holding out his hand to give life to Adam. Michelangelo helped decorate the ceiling of, for 10 points, what chapel located in the Apostolic Palace which contains *The Last Judgement*?

ANSWER: The **Sistine Chapel**

001-10-20-06122

7. Arabic terms for this object include the specific "al-yamin" and the more general "yed." Latin also has specific words for types of this object, including "sinistra." The Greek word for it, "kheir," gives rise to the chemistry term "chiral." Related Romance terms for it include the French "main" and the Spanish "mano," which are cognate to the English term "manual." Non-English languages often have separate terms for the "right" and "left" varieties of, for 10 points, what body part?

ANSWER: **hands**

019-10-20-06123

8. The second time derivative of this quantity is included in the formulation of the virial theorem, and another rule governing this quantity specifies that it is unchanged in its namesake reconfiguration, the stretch rule. This quantity can also be determined via the parallel axis theorem, and for a cylindrical shell is defined as mass times radius squared. For 10 points, name this physical property, the measure of an object's resistance to alterations in its rotation.

ANSWER: **moment of inertia** (do not accept "inertia")

081-10-20-06124

9. One character in this novel is hypnotized after she is told a story about her relative Alice, while another character mysteriously dies in the same chair that one of his ancestors died in. That character, known as the Judge, prompts Clifford and Hepzibah to flee, leaving the daguerreotypist Holgrave and the young girl Phoebe by themselves. Holgrave is the lone lodger in the titular structure, which was built after the farmer Matthew Maule cursed Colonel Pyncheon and his family. For 10 points, name this novel by Nathaniel Hawthorne.

ANSWER: *The **House of the Seven Gables***

083-10-20-06125

10. In Ovid's *Metamorphoses*, the hero Caenus is killed when some of these creatures pile rocks and trees on top of him. Another incident involving them occurred when one named Eurytion attempted to abduct Hippodameia at her wedding, leading to a battle between these creatures and the Lapiths. Other members of this race included Nessus, whose blood was used to kill Heracles, and the tutor of Jason and Achilles, Chiron. For 10 points, name this mythological race of creatures who were half man and half horse.

ANSWER: **centaurs**

083-10-20-06126

11. Certain cells in the stomach are responsible for secreting neurotensin and this substance, and when it is in the bloodstream, it is typically stored in platelets. Along with niacin and melatonin, tryptophan synthesizes this substance, the presence of which notably contributes to feelings of contentment. For ten points, name this neurotransmitter whose reuptake is commonly inhibited by antidepressants.

ANSWER: **serotonin** or **5-hydroxytryptamine** or **5-HT**

081-10-20-06127

12. One work by this man is about Victor and Esther Franz and is titled *The Price*. He also wrote a play about Eddie Carbone, titled *A View from the Bridge*. Yet another play by this man sees Steven Deever blamed for the killing of airline pilots due to faulty parts. This author of *All My Sons* wrote about accusations against Elizabeth Proctor in *The Crucible*. For 10 points, name this American playwright who wrote about Willy Loman's suicide in *Death of a Salesman*.

ANSWER: Arthur **Miller**

081-10-20-06128

13. An anthology of Lithuanian folksongs by Anton Juskiewicz (YUSH-keh-vich) is thought to be the source for many melodies in this composition, whose original sets were designed by Nicholas Roerich. It opens with a bassoon solo and includes such scenes as "Ritual of Abduction" and "Sacrificial Dance." Subtitled "Pictures from Pagan Russia" and opening with the section "Adoration of the Earth," this ballet is known for its extensive use of dissonance and polytonality, leading to a riot at its 1913 premiere. For 10 points, name this ballet by Igor Stravinsky.

ANSWER: *The **Rite of Spring*** [or *Le **sacre du printemps*** or ***Vesna svyashchennaya***]

083-10-20-06129

14. The Nordenfelt Company was a prominent Swedish manufacturer of these devices before they merged with a British manufacturer that made a better version. A larger version of this device was known as a "pom-pom" during the Boer Wars. A gas operated type of this weapon was nicknamed the "potato digger" and was invented by Browning. During World War I, the Vickers type of this device became renowned for its reliability. For 10 points, name this weapon invented by Hiram Maxim, which automatically fires a stream of ammunition.

ANSWER: **machine gun** [prompt on **Maxim** gun; prompt on **gun** or similar answer]

003-10-20-06130

15. Works by this thinker include *Lectures on Jurisprudence* and *The Theory of Moral Sentiments*, but this thinker's most famous work included a critique of mercantilism that was later used in Ricardo's theory of comparative advantage. That work attributed to the market an ability to manipulate prices, and introduced the term "invisible hand." For 10 points, name this thinker who wrote *Wealth of Nations*.

ANSWER: Adam **Smith**

081-10-20-06131

1. This man discussed his theories on matter and incorrect theories on comets in his *The Assayer*. The characters Salviati and Simplicio debate in one work by this man called *Dialogue Concerning the Two Chief World Systems*. This man is often believed to have conducted an experiment which showed that falling bodies accelerate at the same rate. This man's name is attached to four moons of Jupiter he discovered. For 10 points, name this Italian astronomer who was tried by the Catholic Church for his belief in heliocentrism.

ANSWER: **Galileo** Galilei

001-10-20-06132

2. Representatives of the successor state to this empire signed the Treaty of Lausanne. One of the greatest naval leaders of this empire was Hayreddin Barbarossa. This territory fought the Long War against the Hapsburgs after winning the Battle of Mohacs (MO-"hatch"). This empire employed slave soldiers called Janissaries. This empire was known as the "sick man of Europe" before World War I. One ruler of this empire was Suleiman the Magnificent. For 10 points, name this empire that was replaced after World War I by Turkey.

ANSWER: **Ottoman** Empire

015-10-20-06133

3. Their efficiency can be increased by hydrogen tunneling. Their dynamics are modeled through Michaelis-Menten kinetics. Inhibitors of them can act competitively or non-competitively. They experience cooperative binding and they can be regulated through allosteric regulation. The induced fit explanation for their action is an upgrade to the lock and key model. Their active site is the location their substrates bind to. For 10 points, name these proteins that act as catalysts.

ANSWER: **enzymes**

001-10-20-06134

4. The longest holder of this position was nominated as the presidential candidate for the Anti-Masonic party in 1832; that man was William Wirt. Chuck Schumer called for the resignation of another holder of this position after he fired eight lawyers. Another person in this role sought to arrest communists in his "raids." In addition to Alberto Gonzalez and A. Mitchell Palmer, holders of this position include the first, Edmund Randolph, and the current one, Eric Holder. For 10 points, name this position that heads the Department of Justice.

ANSWER: United States **Attorney General**

083-10-20-06135

5. This narrative technique is used by Jay McInerney's *Bright Lights, Big City* and in every odd chapter of a work featuring the Reader and the Other Reader. This narrative point-of-view is thus used in Italo Calvino's *If on a winter's night a traveler*. The singular pronoun for this grammatical person used to be "thou", but modern English uses the same word for both the singular and plural. For 10 points, name this grammatical person which is represented in the English with the word "you".

ANSWER: **second-person** [accept **second** after " grammatical person"]

082-10-20-06136

This is a 10-second computation question. 77 is the average of 89 and what other number?

ANSWER: **65**

082-10-20-06137