

1. This man names an algorithm that takes numbers  $a$  and  $b$  and returns the answer of the algorithm on numbers  $b$  and  $a \bmod b$ . That algorithm computes the greatest common divisor. He proved that there are infinitely many primes, and he wrote a work in which the first four books deal with plane geometry and include the Pythagorean Theorem and the parallel postulate. For 10 points, name this Greek mathematician who wrote *Elements* and is considered the father of geometry.

ANSWER: **Euclid** of Alexandria

040-09-7-02101

2. This man won the sponsorship of Louis XIV with the plays *The Blunderer* and *Sganarelle* (suh-GAN-uh-REL). His marriage to a younger woman is reflected in his play *The School for Wives*. This playwright fell ill and died while acting in the title role of his *The Imaginary Invalid*. He wrote about the angry Alceste in his *The Misanthrope*. For 10 points, name this French playwright of a work about Orgon's interactions with a con artist, *Tartuffe*.

ANSWER: **Molière** [ or Jean-Baptiste **Poquelin**]

062-09-7-02102

3. This man led a legion of the navy during the Uruguayan Civil War. He objected to the granting of Savoy and Nice (NEECE) to France under the terms of the Treaty of Villafranca, which contributed to his dislike of Camillo Cavour. The annexation of the Kingdom of the Two Sicilies by Sardinia resulted from this man's Expedition of the Thousand. For 10 points, name this figure of the Risorgimento (ree-SOR-jee-MEN-toh) who led the Red Shirts as part of his campaign to unify Italy.

ANSWER: Giuseppe **Garibaldi**

032-09-7-02103

4. This quantity is the conjugate variable of position. The de Broglie (duh BROY) equation sets wavelength equal to Planck's constant divided by this quantity. This quantity, unlike kinetic energy, is conserved regardless of whether a collision is elastic or inelastic. This quantity is symbolized  $P$ . For 10 points, name this vector quantity found by multiplying mass and velocity.

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

026-09-7-02104

5. One group of twelve works by this composer was commissioned by Johann Peter Solomon. In his 94th symphony, a resounding fortissimo chord suddenly appears during an otherwise slow movement. He wrote 12 "London" Symphonies and an oratorio based on the book of Genesis entitled *The Creation*. For 10 points, name this Austrian composer who wrote 104 numbered symphonies, including ones named "Clock," "Farewell" and "Surprise."

ANSWER: Franz Joseph **Haydn** (HAI-den)

052-09-7-02105

6. In one of this author's novels, Fanny Elmer reads a Henry Fielding novel to get closer to a man obsessed with the past. The title character of that novel is the Cambridge-educated son of Betty Flanders. In another work by this writer, Lucrezia marries the depressed World War I veteran Septimus Smith. In that work by her, the psychiatrist Sir William Bradshaw, Peter Walsh, and Lady Rosseter attend a dinner party hosted by the narrator, Clarissa. For 10 points, name this author of *Jacob's Room* and *Mrs. Dalloway*.

ANSWER: Virginia **Woolf** [or Adeline Virginia **Stephen**]

063-09-7-02106

7. This composer wrote a tone poem in which the English horn represents a mythical bird of the underworld. This man also wrote an orchestral suite which depicted such images as the castle of Karl Knutsson. Besides writing *The Swan of Tuonela* (TOO-o-nay-la) and the *Karelia Suite*, this composer wrote a symphonic poem meant to protest Russian censorship within his home country. His *Lemminkäinen* (LEM-enk-eye-nen) *Suite* was inspired by his country's national epic, the *Kalevala*. For 10 points, name this composer of *Finlandia*.  
ANSWER: Jean **Sibelius** (sey-BAIL-ay-us)

052-09-7-02107

8. This man wrote about Richard Wright in such books as *Notes of a Native Son*. This author's discussions with Margaret Mead were collected in *A Rap on Race*. One novel by this man sees David run away with Hella despite his love for the title character. That work is *Giovanni's Room*. This writer's most famous work is the story of the "Temple of the Fire Baptized" and the conversion that takes place there. For 10 points, name this creator of John Grimes, who is the protagonist of his *Go Tell It on the Mountain*.  
ANSWER: James Arthur **Baldwin**

062-09-7-02108

9. This philosopher expressed his concern for the humans, not the horses, who survived a stable fire. This man claimed that reciprocity was the single best word to live by, thus formulating his Silver Rule. This compiler of the *Spring and Autumn Annals* formulated the ideas later taught by Mencius. He described benevolence as *li* and created an ethics centered on *ren*. He advocated the "mandate of heaven," and collected his teachings in the *Analects*. For 10 points, name this Chinese thinker whose school opposed Daoism.

ANSWER: **Confucius** [or **Kong Fuzi** ; pronounced KONG-foo-tsee]

020-09-7-02109

10. Under this President, the Force Acts were used to prosecute Ku Klux Klan members. He used the slogan "Let us have peace" in his campaign against Horatio Seymour. This President's secretary, Orville Babcock, was indicted for participating in the Whiskey Ring. This President was in power during the Panic of 1873 and headed the second half of Reconstruction. For 10 points, name this man whose two White House terms were plagued by corruption, tarring the reputation he had earned as the victorious Union commander in the Civil War.

ANSWER: Ulysses Simpson **Grant**

032-09-7-02110

11. This composer's sixth symphony in B minor has an unusually quiet ending to its fourth movement and triumphant ending to its third movement; that symphony is called the "Pathétique." Another of this composer's works quotes the Russian and French national anthems to depict the battle of Borodino. One of his ballets includes a battle between soldiers and mice and the dance of the Sugar Plum Fairy. For 10 points, name this Russian composer who used a cannon in the *1812 Overture*, and who wrote *Swan Lake* and *The Nutcracker*.

ANSWER: Piotr Ilyich **Tchaikovsky**

032-09-7-02111

12. Eleanor Roosevelt founded the Tractors for Freedom Committee to ransom the hostages captured during this event. Once this operation's location was selected, it was known as Operation Zapata; earlier, the overall goal was called Pluto. This event featured a drop of over one hundred fifty paratroopers in Operation Falcon. Weak CIA support led to the failure of, for 10 points, what April 1961 attempt to oust Castro from Cuba, which was named for the body of water where the volunteers landed?.

ANSWER: **Bay of Pigs** invasion [or **Bahía de Cochinos**]

022-09-7-02112

13. This language recently introduced autoboxing. GUIs (GOO-ees) can be created in this language by AWT ("A-W-T") and Swing. Its string class is immutable, but its stringbuffer class is mutable. Common exceptions in this language are IndexOutOfBoundsException, NullPointerException, and RuntimeException. It runs on a namesake virtual machine. For 10 points, name this object oriented Sun Microsystems created programming language.

ANSWER: **Java**

001-09-7-02113

14. This empire's capital moved from Niani to Kangaba after the reign of Mahmud III. It developed after a victory at the battle of Kirina over Sumanguru by this empire's founder, Sundiata Keita. Another ruler of this kingdom was so rich that his gold-strewn pilgrimage to Mecca caused prices to shoot up in Cairo. For 10 points, name this ancient kingdom, once ruled by Mansa Musa, which contained the city of Timbuktu.

ANSWER: Kingdom of **Mali** [or the **Mali** Empire; or the **Manding** Empire; or **Manden Kurafa**]

022-09-7-02114

15. One section of a work by this author compares the Bank of England's charging of interest to the production of bad Baroque art. This author wrote a poem that compares the people he sees to "petals on a wet, black bough" called "In a Station of the Metro." This poet translated poetry by Li Po, such as "The River Merchant's Wife." One work by this author was written partially in Pisa, Italy, where he lived due to Fascist sympathies that led to his confinement after World War II in an American mental hospital. For 10 points, name this author of the *Cantos*.

ANSWER: Ezra Weston Loomis **Pound**

022-09-7-02115

1A. Name the Washington volcano, located about fifty miles northeast of Portland, that is most famous for a massive eruption in May of 1980 that collapsed the northern face of the mountain.

ANSWER: Mount **St. Helens**

1B. The right one of these chambers of the heart pumps blood into pulmonary circulation. Name these chambers, whose left and thicker-walled one pumps blood through the aorta to the rest of the body.

ANSWER: **ventricles**

2A. What German sociologist delivered the Freiburg Address against the German aristocracy and wrote *The Protestant Ethic and the Spirit of Capitalism*?

ANSWER: Max **Weber**

2B. Name the Toni Morrison novel in which a young woman, who may be a reincarnation of a murdered baby girl, exploits her mother Sethe and alienates her sister Denver.

ANSWER: **Beloved**

3A. Chains of volcanic islands and ocean trenches occur at the namesake zones of what process, in which an oceanic plate slides beneath another plate?

ANSWER: **subduction**

3B. Economic adviser Lawrence Summers has predicted an improvement from the ten percent rate of what labor statistic, which is related to inflation by the Phillips curve?

ANSWER: **unemployment** rate

4A. This is a 10-second calculation question. Evaluate:  $32.23 - 8.898$ .

ANSWER: **23.332**

4B. This is a 10-second calculation question. Solve for x:  $y = 3x - 5$ .

ANSWER:  $x = \mathbf{\underline{(y+5)/3}}$

5A. What type of long poetry, characterized by works such as the *Aeneid* and the *Iliad*, typically begins with an invocation to a muse?

ANSWER: **epic** verse

5B. Name the language family, whose recognition was advocated by Marcus Boxhorn and William Jones, that includes Hindi and English.

ANSWER: **Indo-European**

6A. This is a 20-second calculation question. A quadrilateral has four angles. Two of these angles are the same; the third is twice as large as the first two, while the fourth is 18 degrees larger than the third. What is the measure of the two identical angles?

ANSWER: **57** degrees

6B. This is a 20-second calculation question. Factor:  $3x^2 - 35x + 72$ .

ANSWER: **(x-9)(3x-8)** [the order of the factors does not matter]

7A. Name the Jewish physician and researcher who was instrumental in creating a vaccine against polio in 1955.

ANSWER: Jonas **Salk**

7B. "Do Not Go Gentle Into That Good Night" by Dylan Thomas is a notable example of what poetic form, which includes two repeated refrains over its nineteen lines?

ANSWER: **villanelle**

8A. This format can hold up to five times the amount of information of a DVD and overcame the now-defunct rival HD-DVD. Identify this video disc format, which gets its name from the color of the laser used to read its contents.

ANSWER: **blu ray** disc

8B. Identify the television show that stars David Boreanaz as FBI Special Agent Seeley Booth and Emily Deschanel as the title forensic anthropologist, Temperance Brennan.

ANSWER: **Bones**

9A. This is a 30-second calculation question. A pyramid has a square base, 30 inches on each side. The height of the pyramid is 20 inches. What is the surface area of the pyramid?

ANSWER: **2400 square inches**

9B. This is a 30-second calculation question. A group of six teams plays a tournament, with the top two teams advancing to a top level of playoffs and the next two teams advancing to a lower level of playoffs. If we do not care about order of finish inside the two-team playoff groups, how many different qualifying groups are possible?

ANSWER: **90**

10A. What rotational analogue of force is calculated by the cross product of force with the radius from the pivot point?

ANSWER: **torque**

10B. Identify the painter of the French Revolution who is known for such works as *The Death of Marat* and *The Coronation of Napoleon*.

ANSWER: Jacques-Louis **David**

1. In one appearance, this character is an obsessed fan who is upset that author Paul Sheldon is planning to kill off Snuggly Jeff. This character's love interests include Susie Swanson, and he plays the role of Darth Vader in *Blue Harvest*. He often envisions his bear Rupert as a muscular man. In this character's first appearance, he builds a laser in an attempt to kill his mother Lois. For 10 points, name this brother of both Chris and Meg, the youngest member of the Griffin family on *Family Guy*.

ANSWER: Stewie Griffin [prompt on Griffin before it is read]

064-09-7-02117

2. This poet lamented the loss of "that store...counted best" that now "in ashes lie" in one poem. Another poem by this writer claims that "friends, less wise than true" "snatcht" "the ill-formed offspring of [this poet's] feeble brain." Those works by this poet are titled "Upon the Burning of Our House" and "The Author to Her Book." Some of this woman's works were published without her knowledge by her brother-in-law in England. For 10 points, name this seventeenth century American female poet of *The Tenth Muse Lately Sprung Up in America*.

ANSWER: Anne Bradstreet

023-09-7-02118

3. After praying to God, this figure causes the three-part fracture of the leg of Simon Magus. He cuts off the ear of the servant Malchus at the scene of Jesus's arrest and lies before the rooster crows twice. Prior to denying Jesus, this brother of the apostle Andrew briefly refuses to have his feet washed. Martyred by being crucified upside down, this figure is referred to in a dialogue that establishes him as the rock upon which Jesus would build his church. For 10 points, name this early church leader.

ANSWER: Simon Peter [or Saint Peter]

020-09-7-02119

4. During early infection by this microbe, lymph nodes may swell because it replicates extensively in dendritic (den-DRITT-ick) cells. This virus is treated by HAART ("HEART") drugs like lopinavir (low-pin-AV-eer), and many strains of this virus have become resistant to AZT (A-Z-T). The condition caused by this microbe occurs after CD4 white cell count drops below 200. This virus is transmitted through bodily fluids, most commonly blood and sexual secretions. For 10 points, name this retrovirus that causes AIDS.

ANSWER: HIV [or Human Immunodeficiency Virus; do not accept "Acquired Immune Deficiency Syndrome"; do not accept "AIDS"]

032-09-7-02120

5. This scientist's namesake equation relates the change in equilibrium constant of a reaction to the change in a system's temperature. His namesake factor is used to calculate colligative properties like osmotic pressure. That factor denotes the concentration of dissociated particles of a solute and is designated *i*. For 10 points, name this Dutchman who was the first Nobel Laureate in Chemistry.

ANSWER: Jacobus Henricus van't Hoff

058-09-7-02121

6. One version of this scene depicts a washer-woman with her hand in a bucket, looking at two male servants clad in blue and green. That version of this scene shows a cloud of ethereal spirits around a lamp at the upper left, and places the main participants of this scene on a diagonal axis. In addition to Tintoretto's rendition, another painting of this event shows an effeminate John to the left of a blue-sashed figure who holds his palms upward on a long table. For 10 points, name this painting by Leonardo da Vinci that shows Christ's final meal.

ANSWER: *The Last Supper* [or *Il Cenacolo*; or *L'ultima cena*]

020-09-7-02122

7. According to legend, this man brought Greece the alphabet. When Illyria was destroyed, Zeus turned this figure and Harmonia into black serpents and sent them to the Elysian Fields. This man was ordered by the oracle at Delphi to cease his quest to find his sister Europa and to settle at the spot where a cow lay down. This man created a race of armed men known as Spartoi after planting dragon's teeth. For 10 points, name this founder of Thebes.

ANSWER: Cadmus

030-09-7-02123

8. This group occupied Gotland under Winrich von Kniprode (VIN-rick von NIP-road), who led their successful defeat of the pirates known as the Victual Brothers. This group set up a monastic state after conquering Baltic pagans during the Northern Crusades. Their fall came under their Grand Master Ulrich von Jungingen (OOL-rick von YOON-geen-gehn), who lost the Battle of Tannenberg against the Polish-Lithuanian Commonwealth. For 10 points, identify this order of knights whose name indicates that they were German.

ANSWER: the Teutonic Knights of St. Mary's Hospital in Jerusalem [or Teutonic Order; do not accept "Knights Hospitaller"]

026-09-7-02124

9. Like anorexia, one type of this disease can lead to Kussmaul (KOOSS-mall) breathing indicative of severe ketoacidosis (KEE-tow-ASS-id-OH-siss). Other symptoms of this disease include fatigue, thirst, hunger, and frequent urination. Type 2 of this disease often results from obesity in adults, while Type 1 occurs in juveniles and is a result of the body attacking beta cells in the islets of Langerhans. For 10 points, name this illness in which the pancreas does not produce enough insulin or in which cells become insulin resistant.

ANSWER: diabetes mellitus

032-09-7-02125

10. This series of conflicts began with a dispute over the town of Messana. In the second of these conflicts, Hasdrubal met defeat at Metaurus River. In the buildup to the last of these wars, Cato the Elder ended every speech by advocating the complete destruction of the enemy. Battles in these wars included Lake Trasimene (trah-SIM-eh-nee), Cannae, and Zama, where Scipio defeated Hannibal. For 10 points, name this three-war struggle for control of the Mediterranean between the Romans and Carthaginians.

ANSWER: Punic Wars

063-09-7-02126

11. This author wrote "we thought it was the Judgment day" during "that night your great guns, unawares, shook all our coffins as we lay" in his poem "Channel Firing." Boldwood shoots and kills Sergeant Troy in this man's novel about Bathsheba Everdene, set in Wessex. In another of this author's novels, the title character leaves after Richard Newson returns to claim his daughter, Elizabeth-Jane. For 10 points, what author of *Far From the Madding Crowd* wrote about Michael Henchard in *The Mayor of Casterbridge*?

ANSWER: Thomas Hardy

034-09-7-02127

12. The existence of this entity supports a theory that invalidated the Deccan Flats Hypothesis. It contains fragments of shocked quartz and tektite glass. Luis Alvarez and his son Walter hypothesized the reason for this entity's existence. It has high levels of iridium, which suggests that it was formed concurrently with the object that formed the Chicxulub Crater on the Yucatan Peninsula. For 10 points, name this boundary formed by the asteroid that killed the dinosaurs, usually named for two letters that abbreviate the periods it demarcates.

ANSWER: the **K-T** boundary [accept **Cretaceous-Tertiary** boundary; accept **Cretaceous-Paleogene** boundary; accept **K-PG** boundary]

040-09-7-02128

13. In one of this author's novels, soldiers kill a barber who throws a beer mug at a prostitute. He also wrote a series of novels that chronicles three generations of a family whose patriarch romances single women he meets at the grocery store. In the first of that series, Amina is struck by a car and exiled from her home because she left without permission. This author wrote the novels *Sugar Street*, *Palace Walk*, and *Palace of Desire*. For 10 points, name this Egyptian author of the *Cairo Trilogy*.

ANSWER: Naguib **Mahfouz**

026-09-7-02129

14. This movement consulted with German academic Rudolf von Gneist to create a constitution. One uprising against this movement was led by Saigo and was called the Satsuma rebellion. An important document of this movement was the Charter Oath. Reforms resulting from this movement included the repartitioning of the daimyo's land. The Tokugawa shogunate was overthrown and the emperor was returned to power during, for 10 points, what nineteenth century movement which Westernized Japan?

ANSWER: **Meiji** restoration [or **Meiji** Ishin]

032-09-7-02130

15. This President became embroiled in the Travelgate controversy early in his presidency. The Americorps program was created during this man's administration. This signer of the Brady Bill oversaw the military's adoption of the "Don't Ask Don't Tell" policy and presided over military actions in Bosnia and Somalia. This President was hampered by the Whitewater Scandal and appointed Madeline Albright as Secretary of State. For 10 points, name this U.S. President who was impeached following an affair with Monica Lewinsky.

ANSWER: William Jefferson "Bill" **Clinton** [or William Jefferson **Blythe** III]

015-09-7-02131

1. This river's valley was the subject of the Johnston Unified Water Plan, which involved using Lake Tiberias as a reservoir. It is formed from the confluence of the Hasbani, Dan, and Banyas; a secret project attempted to divert the Hasbani and Banyas to the Yarmuk River instead. Use of this river is a point of contention between Israel and the country named for this major source of the Dead Sea. For 10 points, name this river which is mentioned in many gospel songs because, in the Bible, it is where Jesus is baptized.

ANSWER: **Jordan** River

003-09-7-02132

2. Although the cuticle surrounds this structure to prevent water loss, it also emits excessive water through guttation. The epidermal layer on its lower surface is interrupted by openings called stomata, surrounded by guard cells, which control transpiration. Some plants lose this structure through abscission. For 10 points, name this plant organ where photosynthesis takes place and, because of high concentration of chloroplasts, often looks green.

ANSWER: **leaf**

034-09-7-02133

3. A mineral containing this element and lead was one of the earliest semiconductors and is commonly called galena. This element is extracted by the Frasch process, and the only amino acids containing this element are methionine and cysteine. The odors of onion, garlic, and skunk spray are caused by compounds of this element called thiols. A compound consisting of this element and two hydrogen atoms notably smells like rotten eggs. For 10 points, name this element, a yellow nonmetal with atomic number 16 and symbol S.

ANSWER: **sulfur** [or **S**]

032-09-7-02134

4. One figure with this animal as its surname was depicted as the rival of Lewis Baboon in pamphlets by John Arbuthnot. Frescoes at the palace of Knossos (kuh-NAW-siss) show that "leaping" over this animal was a sport in ancient Minoan culture. A portly man with a Union Jack waistcoat, who is the national symbol of Britain, is known as "John" with this surname. This animal's name also denotes a stock market with rising prices. For 10 points, during every July's Festival of San Fermin in Pamplona, daring participants "run" with what male cattle?

ANSWER: **bulls** [prompt on **cattle**; accept **male cattle** before "male" is read; do not accept or prompt on **cows**, as all clues refer to bulls only]

019-09-7-02135

5. This man's "little tragedies" include *The Stone Guest* and *Mozart and Salieri*. His poem *The Bronze Horseman* is a tale of St. Petersburg. Several of this man's works were later adapted to operas, including *Ruslan and Ludmila*, *The Tale of Tsar Saltan*, and *Boris Godunov*. One of this author's title characters rejects Tatyana, only to fall in love with her later. That title character kills his friend Vladimir Lensky. For 10 points, name this Russian author of *Eugene Onegin* (yoo-JAY-nee on-YAYG-in).

ANSWER: Alexander Sergeyevich **Pushkin**

062-09-7-02136