

1. **One of these figures, Phoebe, was the mother of Leto. One of them named Mnemosyne (neh-MAZ-uh-nee) was the personification of memory and the mother of Clio, Calliope, and the other Muses. One of them named Oceanus was the father of three thousand namesake children. Tethys and Iapetus (YAHP-eh-tus) were other examples of these figures, one of whom was (*) chained to a rock where an eagle ate his liver. For 10 points, Prometheus, Cronus, and Rhea are examples of what giant deities who fought with the Olympians?**

ANSWER: **Titans**

015-11-29-07102

2. **One corollary of the Riemann Hypothesis is that the difference between the logarithmic integral and the prime counting function is upper bounded by the product of the square root function and this function. The first term of the Maclaurin series of this function is x minus 1, and the integral of this function is 1 over x . When this function is applied to a product, it may be written as the sum of this function applied to each term in the product. (*) For 10 points, name this mathematical function, which specifically has base e .**

ANSWER: **natural logarithm** [or **logarithm** before "i pi" is read; prompt on **logarithm** after "i pi" is read]

081-11-29-07103

3. **This man received a ring from the Valentinian III's sister, Honoria, which prompted him to invade. The Roman general Aetius and Visigothic emperor Theodoric I defeated this ruler in a battle whose location is believed to have been on the Catalaunian Plains or Chalons. This man may have died from a nosebleed eight years after he became the sole ruler of his empire following his murder of his older brother (*) Bleda. For 10 points, name this man who got the nickname "Scourge of God" for his incursions into Europe during the fifth century as a leader of the Huns.**

ANSWER: **Attila** the Hun

023-11-29-07104

4. **This poet wrote that "Life is real! Life is earnest!" in his poem "A Psalm of Life." He wrote "The Jewish Cemetery at Newport," and his poetry collections include *Tales of a Wayside Inn*. In another poem, John Alden loves Priscilla, but his friend, the title character, is also in love with her. That poem, "The Courtship of Miles Standish," was written after his poem about (*) Minnehaha (MIN-ee-HA-ha), who lives near Gitche Gumee with her husband Hiawatha. For 10 points, name this poet of *Evangeline* and "Paul Revere's Ride."**

ANSWER: Henry Wadsworth **Longfellow**

001-11-29-07105

5. **This man's arrangement of a J.S. Bach fugue is known as his "Fugue a la Gigue." The last movement of this man's Second Suite in F combines the folk songs "Dargason" and "Greensleeves," a combination echoed in his later *St. Paul's Suite*. He is best known for a work that includes a 6/4 march in one movement, and a dissonant (*) 5/4 theme introduced in the bassoons in another of the seven movements. For 10 points, name this composer of *The Planets*.**

ANSWER: Gustav **Holst**

003-11-29-07106

6. In one novel by this writer, Alexander Reschke and Alexandra Piatkowska establish the Polish-German-Lithuanian Cemetery Association. That novel is *The Call of the Toad*. A long-lived magical animal appears before the Women's Revolutionary Tribunal in this author's *The Flounder*. Jan Bronski acts as a father figure to the central character of another of his novels. That character can (*) shatter glass with his voice and stopped growing at the age of three, and is named Oscar Matzerath. For 10 points, name this author of *The Tin Drum*.

ANSWER: Günter Wilhelm Grass

001-11-29-07107

7. Holographic versions of these entities are unwitnessed, and nuncupative ones are created orally and are sometimes associated with dying soldiers. Do-not-resuscitate orders are associated with the "living" types of these entities that go into effect when an individual enters a vegetative state. Intestacy occurs when one (*) dies without one of these documents, and judicial proceedings interpreting them are known as probate. For 10 points, name these legal instruments used to dispose of assets at one's death.

ANSWER: will [or testament]

030-11-29-07108

8. One goddess of this culture was killed by four hundred of her children after she was impregnated by a ball of feathers, after which these people's war god sprung fully armed from the womb. Another god of these people was represented by a smoky obsidian mirror. Mictlan is the underworld of this culture. Legend holds that this culture's ruler mistook (*) Hernan Cortes for their feathered-serpent god. For 10 points, name this Mesoamerican civilization that worshiped the god Quetzalcoatl (KETZ-ul-co-AH-tul).

ANSWER: the Aztecs

026-11-29-07109

9. Richard Helms ran this organization from 1966 to 1973. Bob Woodward's book *Veil* described William Casey's tenure as head of this organization. While working for this organization, Kermit Roosevelt orchestrated a 1953 coup that overthrew Mohammad Mosaddeq in favor of Mohammad Reza Shah. The predecessor to this organization was the (*) Office of Strategic Services. For 10 points, name this American government agency that has conducted spying on foreign governments.

ANSWER: CIA [or Central Intelligence Agency]

030-11-29-07110

10. A nearly massless one of these objects is used to hold the weights for an Atwood machine. One mass pulls another across a table using the horizontal version of this device. A single fixed-axis one has a mechanical advantage of 1, while adding more of them will often increase the mechanical advantage if friction is ignored. (*) For 10 points, name this simple machine that uses an axle and a rope to lift objects.

ANSWER: pulley [or sheave]

093-11-29-07111

11. This ruler ordered the arrest of his enemies in Parliament, known as the Five Members. He raised controversy by demanding Ship Money annually and by marrying the Catholic princess Henrietta Maria. This king ruled throughout the Eleven Years' Tyranny, which was ended by the summoning of the Short Parliament. The (*) New Model Army was raised against this ruler by Oliver Cromwell. For 10 points, name this son of James I, who was beheaded during the English Civil War.

ANSWER: Charles I of England [prompt on Charles]

080-11-29-07112

12. **The protagonist of this novel fantasizes about Gerty McDowell, and maintains a correspondence with Martha Clifford using the pseudonym of Henry Flower. One character in this novel asks for the key to a Martello tower. That character is Buck Mulligan, the roommate of Stephen Dedalus. It ends with a (*) stream-of-consciousness soliloquy by Molly, the wife of Leopold Bloom, who wanders around Dublin. For 10 points, name this novel by James Joyce whose structure is based on *The Odyssey*.**

ANSWER: *Ulysses*

024-11-29-07113

13. **The early succession of this dynasty was manipulated by the wife of its first emperor, Empress Lu. This dynasty was interrupted by the fundamentalist Xin (SHIN) dynasty of Wang Mang (WONG MONG). After its fall, there ensued a 400 year "Period of Disunion," which included the Three Kingdoms period. This dynasty was founded after (*) Liu Bang (LOO BANG), or Gaozu (gow-ZOO), overthrew the Second Emperor of the Qin (CHIN) Dynasty. For 10 points, name this dynasty that ruled from 208 BCE to 220 CE and names the ethnic majority of China.**

ANSWER: Han Dynasty

080-11-29-07114

14. **This building's construction was delayed by a controversy over the stress tolerance of plywood known as Malice in Blunderland, and it was completed by Peter Hall. This building's reception hall was redesigned in 1999 by its original architect, and it added a colonnade on the exterior in 2001. It overlooks Port Jackson and includes underground chambers where (*) performers prepare. For 10 points, name this building which features overlapping sail-like shells, a musical space designed by Jorn Utzon and found in Australia.**

ANSWER: Sydney Opera House

019-11-29-07115

15. **In these objects, FUN effects can be observed, which are a fractionation class of refractory inclusions or CAI. Oxygen isotope levels in the Allende one were used to discriminate between different models of the solar system's formation. The largest class of these are chondrites, which is a subclass of the stony type of them. One called ALH 84001 that was found in Antarctica was part of a 1990's argument for life on (*) Mars. For 10 points, name these rocks that fall from outer space and survive the collision.**

ANSWER: meteorites

001-11-29-07116

16. **Like Rachmaninoff, he used the twenty-fourth caprice for his *Variations on a Theme of Paganini*. He used the drinking song "Gaudeamus Igitur" (GOW-day-ey-mus EE-gih-tour) as the basis for a work written upon receiving an honorary degree from Breslau, his *Academic Festival Overture*. This longtime friend of Clara Schumann composed a (*) *German Requiem* seven years before premiering a symphony nicknamed "Beethoven's Tenth." For 10 points, name this German composer, who also wrote a notable lullaby.**

ANSWER: Johannes Brahms

003-11-29-07117

17. In 2009, the Flaming Lips teamed up with Henry Rollins and other guests to release a cover version of this album. Clare Torry was initially uncredited for her vocal work on this album's "The Great Gig In The Sky", and another track featured a 7/4 time signature with looped sound effects including a cash register. An urban legend claims that this album, which ends with (*) "Eclipse", syncs up with *The Wizard Of Oz*. For 10 points, name the album including "Us And Them", "Time", and "Money" whose cover features a triangular prism, created by Pink Floyd.

ANSWER: *The Dark Side Of The Moon*

082-11-29-07118

18. This organ has been studied in the *Aplysia* genus of slugs by Eric Kandel. It is home to the suprachiasmatic (SOOP-ruhk-eye-as-MAT-ic) nucleus. It was divided into fifty-two regions by Korbinian Brodmann, and other regions of this organ include Wernicke's (VERN-ick-eez) area and Broca's area. It is surrounded by three membranes collectively known as the (*) meninges (men-IN-jeez), and its stem is home to the pons and the medulla oblongata. For 10 points, name this organ which contains the temporal and frontal lobes.

ANSWER: brain

024-11-29-07119

19. This author wrote about Kemal's love for Fusun in his most recent novel, *The Museum of Innocence*. He wrote a novel about an Italian scholar who becomes a teacher to the Hoja, entitled *The White Castle*. He also wrote a novel in which Ka travels to a town to investigate a series of suicides, and gets involved in a debate about (*) headscarves. For 10 points, name this Nobel-winning Turkish author of *Snow* and *My Name Is Red*.

ANSWER: Orhan Pamuk

024-11-29-07120

20. The Muskegon River flows into this lake. Traverse City is on this lake's coast. The Beaver Island archipelago lies at the northern end of this lake. Ports on this lake include Benton Harbor, Waukegan, and Racine. The Straits of (*) Mackinac (MACK-kuh-naw) connect this lake to the rest of the Great Lakes. Green Bay is an inlet on this lake, which is the only Great Lake entirely within the United States. For 10 points, name this lake connected to Lake Huron and bordered by Chicago.

ANSWER: Lake Michigan

027-11-29-07121

21. This ion is combined with iron in Prussian blue. Compounds of this ion are used in the standard process for extracting gold and silver from ore. When this is not an ion, but instead covalently bonded in an organic molecule, the molecule is called a nitrile. Since it inhibits cytochrome c (SITE-oh-chrome see) oxidase, it is capable of stopping aerobic cellular respiration. That is the mechanism behind its most common usages, including insecticides. (*) For 10 points, name this ion with formula CN minus that is poisonous and is consequently used in suicide pills.

ANSWER: cyanide [or CN- before it is read]

001-11-29-07122

22. Two of the figures in this painting wear necklaces consisting of multi-colored beads and a cross. On its left side, one can see an eclipsed moon as well as a woman milking a cow, and near its center a man holds a scythe. Red and blue houses are shown (*) upside-down in the background of this painting, which also depicts a glowing tree being held by a man with a green face. Meant to reflect the painter's memories of a Hasidic community outside Vitebsk, Russia, this is, for 10 points, what painting by Mark Chagall?

ANSWER: *Land and the Village*

092-11-29-07123

23. This author described figures as "naked and bald in their furs" in her poem "The Munich Mannequins." Another of her poems uses imagery from the Holocaust to address the title figure called "Daddy." Those poems were collected in *Ariel*, which was published nine years after she married poet Ted Hughes and two years after this author committed suicide. This author wrote a novel that details (*) Ester Greenwood's struggle to remain sane. For 10 points, name this American writer who was the author of *The Bell Jar*.

ANSWER: Sylvia **Plath**

083-11-29-07124

1. Upon finding this character's body, Haemon kills himself, which leads Haemon's mother Eurydice to kill herself. For 10 points each:

[10] Name this woman who disobeys an order of Creon by burying her brother.

ANSWER: **Antigone**

[10] This Greek playwright wrote about Antigone as part of a trilogy of plays about Thebes.

ANSWER: **Sophocles**

[10] This character titles the first two plays of that Theban trilogy, and in the first of those plays he kills his father Laius, marries his mother Jocasta, and blinds himself.

ANSWER: **Oedipus**

023-11-29-07201

2. Answer the following about the National Crime Syndicate, for 10 points each:

[10] This father of organized crime in America and associate of Meyer Lansky urged the five Mafia crime families of New York City to adhere to omertà, or the oath of silence.

ANSWER: Charlie "Lucky" **Luciano** [or Salvatore **Lucania**]

[10] This mobster nicknamed Scarface operated in Chicago and was finally put away for tax evasion in 1931.

ANSWER: Al **Capone** [or Alphonse Gabriel **Capone**]

[10] Capone orchestrated this 1929 massacre in Chicago of members of Bug Moran's gang.

ANSWER: **Saint Valentine's Day** Massacre

020-11-29-07202

3. Identify these people whose names became common words, for 10 points each.

[10] This author of *The Family Shakespeare* had Lady Macbeth shout "out, crimson spot!" among other sanitizing changes; his name now refers to the act of censoring risqué material out of any work.

ANSWER: Thomas **Bowdler**

[10] This man attempted to organize the harvest of Lord Erne's potatoes in defiance of a protest by the Irish Land League. His subsequent ostracism from the community gave rise to a term for refusing to deal with a company in protest.

ANSWER: Charles **Boycott**

[10] This Austrian, who investigated the possibility of telekinetically controlling objects and curing disease through "animal magnetism," inspired James Baird's work on hypnosis.

ANSWER: Franz **Mesmer**

019-11-29-07203

4. Answer the following about large releases of energy, for 10 points each:

[10] These events which come in type I and II types are the explosions of supergiant stars or white dwarfs. They are responsible for the creation of heavy elements.

ANSWER: **supernova**

[10] A supernova can occur when a white dwarf exceeds or comes close to exceeding this limit of about 1.4 solar masses.

ANSWER: **Chandrasekhar** limit

[10] These energetic occurrences in a certain part of the electromagnetic spectrum are among the brightest in the universe. One possible explanation of long duration ones is the collapsar model.

ANSWER: **gamma ray bursts** [or **GRBs**]

001-11-29-07204

5. This author of *Taxation No Tyranny* wrote *The Lives of the Most Eminent English Poets*. For 10 points each:

[10] Name this author of *A Dictionary of the English Language*.

ANSWER: Samuel **Johnson**

[10] This friend of Johnson and author of *Dorando: A Spanish Tale* wrote a biography of Johnson titled *The Life of Samuel Johnson, LL.D.*.

ANSWER: James **Boswell**

[10] Samuel Johnson wrote a poem titled after this British city which was done "in Imitation of the Third Satire of Juvenal." Wordsworth wrote a poem titled after this city and 1802 that eulogizes Milton.

ANSWER: **London**

001-11-29-07205

6. This law states that an increase in pressure at one point in a confined fluid is transmitted to all other points in the fluid. For 10 points each:

[10] Name this law from fluid dynamics.

ANSWER: **Pascal's** law or principle

[10] Pascal's principle explains the presence of this upward-pointing force that keeps objects afloat.

ANSWER: **buoyancy** [or **buoyant** force]

[10] This principle states that the buoyant force on a solid object in water is equal to the weight of the water displaced by the object.

ANSWER: **Archimedes'** principle

003-11-29-07206

7. One of these named Pholus died from an accident involving a poisoned arrow. For 10 points each:

[10] Name these half human, half horse creatures from Greek mythology.

ANSWER: **centaurs**

[10] This wise centaur was the tutor of Achilles, Jason, and other heroes.

ANSWER: **Chiron**

[10] In some stories, Chiron traded his immortality for the release of this being who was chained to a rock where an eagle would eat his liver every day.

ANSWER: **Prometheus**

001-11-29-07207

8. This god was the father of Odin's eight legged horse Sleipnir. For 10 points each:

[10] Name this Norse trickster god.

ANSWER: **Loki**

[10] Among the children of Loki was this woman who presides over the dead.

ANSWER: **Hel**

[10] Hel was the daughter of Loki and this giant who may be one of the troll-women from Ironwood.

ANSWER: **Angrboda**

064-11-29-07208

9. This lake touches the Northwest Angle, which is the northernmost point of the contiguous United States. For 10 points each:

[10] Name this lake that gets its water from the Rainy River and straddles the border between the U.S. and Canada.

ANSWER: **Lake of the Woods**

[10] The Northwest Angle is a part of this state known as the "Land of 10,000 Lakes."

ANSWER: **Minnesota**

[10] This port on Lake Superior lies opposite Superior, Wisconsin, and it is the largest port on the Great Lakes.

ANSWER: **Duluth**

023-11-29-07209

10. This battle was fought near a mountain pass in the Pyrenees. For 10 points each:

[10] Name this battle, at which Roland famously died.

ANSWER: Battle of **Roncevaux** Pass [or the Battle of **Roncesvalles**]

[10] At Roncevaux Pass, Roland commanded the rearguard of the army of this King of the Franks, who was the son of Pepin the Short.

ANSWER: **Charlemagne** [or **Charles I**; or **Charles the Great**; or **Charles le Grand**; or **Karl der Grosse**; or **Carolus Magnus**; prompt on **Charles**]

[10] Charlemagne established a palace in this German city, which is known in French as Aix-la-Chapelle.

ANSWER: **Aachen**

024-11-29-07210

11. When water undergoes this process, it is called osmosis. For 10 points each:

[10] Name this net mass movement of solute from higher concentrations to lower concentrations.

ANSWER: **diffusion**

[10] These two differential equations, one of which states that the mass flux is proportional to the spatial derivative of concentration, mathematically model diffusion.

ANSWER: **Fick's Law** [or **Fick's First Law** and **Fick's Second Law**]

[10] Although his law of effusion is a much better fit, this Scottish scientist discovered that the rate of diffusion of a gas is roughly inversely proportional to the square root of molar mass.

ANSWER: Thomas **Graham**

003-11-29-07211

12. This work was inspired by a memorial exhibition for the composer's friend Viktor Hartmann. For 10 points each:

[10] Name this oft-orchestrated piano suite in which the composer represented himself walking around the gallery in "Promenade". Other sections include "The Old Castle" and "Catacombs".

ANSWER: **Pictures at an Exhibition** [**Kartinki s vystavki**]

[10] *Pictures at an Exhibition* was written by this Russian composer and member of the Mighty Handful also known for *St. John's Night on Bald Mountain*.

ANSWER: Modest **Mussorgsky**

[10] This final section of *Pictures at an Exhibition* features a majestic reworking of the Promenade theme. It depicts a sketch Hartmann made for a monumental structure in the namesake city.

ANSWER: The **Great Gate of Kiev**

082-11-29-07212

13. In the first act of this opera, Daland promises the hand of his daughter Senta in marriage to a man who gives him treasure. For 10 points each:

[10] Name this opera that is based on the legend of a man who can only return to land once every seven years to try and find a woman who will love him until death.

ANSWER: *The **Flying Dutchman*** [or *Der **Fliegende Holländer***]

[10] This German composer of the *Ring* cycle of operas, which included the music for the "Ride of the Valkyries," wrote the opera *The Flying Dutchman*.

ANSWER: Wilhelm Richard **Wagner**

[10] In this Wagner opera, news that the Pope's staff has grown a flower arrives in Wartburg after the death of the title character and his love Elisabeth.

ANSWER: ***Tannhäuser***

023-11-29-07213

14. The fictional Dawson's Landing is the setting for this author's *Pudd'nhead Wilson*. For 10 points each:

[10] Name this American author who wrote about a runaway slave named Jim in the *Adventures of Huckleberry Finn*.

ANSWER: Mark **Twain** [or Samuel **Clemens**]

[10] Part of the plot of *Huckleberry Finn* revolves around these two con artists who continually dupe a town into paying for a nonsensical play.

ANSWER: the **Duke and the King** [or the **Duke and the Dauphin**; accept in either order]

[10] Twain also co-authored this work with Charles Warner which focuses on the attempts of the Hawkins family to sell their land in Tennessee.

ANSWER: *The **Gilded Age**: A Tale of Today*

064-11-29-07214

15. Rulers of this empire included Akbar and Shah Jahan. For 10 points each:

[10] Name this empire that existed in India from the sixteenth to nineteenth centuries.

ANSWER: **Mughal** Empire

[10] This man established what later became the Mughal Empire. This grandfather of Akbar won the First Battle of Panipat.

ANSWER: Zahir ud-din Muhammad **Babur**

[10] This was the son and successor of Babur. He was forced out of India and had to take refuge in Persia.

ANSWER: Nasir ud-din Muhammad **Humayun**

001-11-29-07215

16. Answer the following about Portuguese exploration by sea. For 10 points each:

[10] This explorer died during the Battle of Mactan, but the remaining members of his crew became the first to circumnavigate the earth.

ANSWER: Ferdinand **Magellan**

[10] This Portuguese explorer was the first European to travel past the Cape of Good Hope.

ANSWER: Bartolomeu **Dias**

[10] Some missions were sponsored in the hope of finding this legendary Christian ruler in Africa.

ANSWER: **Prester John**

064-11-29-07216

17. This character was called Quinbus Flestrin, or Man Mountain, by one group of characters. For 10 points each:

[10] Name this physician who observes a dispute between the Big-endians and Little-endians and meets the giants of Brobdingnag.

ANSWER: Lemuel **Gulliver**

[10] *Gulliver's Travels* is a work by what writer of "A Modest Proposal" and "The Battle of the Books."

ANSWER: Jonathan **Swift**

[10] Swift also wrote this satire in which Jack, representing John Calvin, tears his father's coat to pieces. Jack's brothers in this work are Peter and Martin

ANSWER: **"A Tale of a Tub"**

030-11-29-07217

18. This painter showed a pair of cheaters duping a youth in his *The Cardsharps*. For 10 points each:

[10] Name this dramatic Italian painter whose canvases, like *The Conversion of St. Paul*, exhibit a stark contrast between light and dark.

ANSWER: Michelangelo Merisi da **Caravaggio** [do not accept or prompt on "Michelangelo"]

[10] Caravaggio's trademark style of contrast between light and dark is given this name for the Italian for "light-dark." Tenebrism is an extreme form of it.

ANSWER: **chiaroscuro**

[10] Caravaggio painted this work that shows a diagonal beam of light tracing the path of Christ's finger as he points to the title person.

ANSWER: *The **Calling of Saint Matthew***

026-11-29-07218

19. This song begins at "nine o'clock on a Saturday" as "the regular crowd shuffles in." For 10 points each:

[10] Name this song, whose titular musician is himself request to "sing us a song tonight" because "we're all in the mood for a melody, and you've got us feeling all right."

ANSWER: **"Piano Man"**

[10] "Piano Man" is by this performer who also sang "Uptown Girl," "The Longest Time," and "New York State of Mind."

ANSWER: William Martin "Billy" **Joel**

[10] Billy Joel also lent his voice to the character of Dodger the dog in Disney's *Oliver and Company*, singing this song in which Dodger asks the titular question because "I may not have a dime, but I got street savoir faire."

ANSWER: **"Why Should I Worry?"**

081-11-29-07219

20. This representation is written as an infinite sum over n with a denominator n factorial. For 10 points each:

[10] Name this mathematical representation of a function determined by taking the values of successive derivatives of that function, centered around a single point.

ANSWER: **Taylor** series (do not accept "Maclaurin series")

[10] This is the name for a Taylor series centered around the origin.

ANSWER: **Maclaurin** series

[10] The Macularin series of this function consists of only odd powers of x over the factorial of that exponent.

ANSWER: **sine** function

081-11-29-07220

21. An iron form of this organ was often given to patients with polio. For 10 points each:

[10] Name this chief organ of the respiratory system that facilitates the exchange of oxygen into the bloodstream.

ANSWER: **lungs**

[10] Each lung contains about 300 million of these sac like structures that expand upon breathing and are found at the end of the respiratory tract.

ANSWER: **alveoli** or **alveolus**

[10] Alveoli are unable to function properly in this lung disease which is characterized by the destruction of both the alveolar wall and the blood vessels that run through them.

ANSWER: **emphysema**

064-11-29-07221