



1. **This people believed that a god chosen to be the sun became afraid and refused to jump into a fire, which ultimately explains why there is a rabbit on the moon. Many of this people's stories are recorded in the Florentine Codex. Their rain god was a goggle-eyed, fanged deity who demanded child (*) sacrifices and was named Tlaloc. This people believed that one of their deities sailed away on a raft made out of serpents. For 10 points, name this Mesoamerican people who worshiped gods like "the feathered serpent," Quetzalcoatl.**

ANSWER: Aztecs

052-14-86-06101

2. **This symphony's final movement is marked *Allegro con fuoco* and ends as flutes and fiddles play a closing theme in G major. The piccolo unusually plays a short phrase in the first movement of this symphony, whose second movement features an English horn solo and was used as the melody for the William Arms Fisher song (*) "Goin' Home." The opening movement of this symphony recalls the theme of "Swing Low, Sweet Chariot." This symphony is influenced by African-American spirituals blended together with Native American melodies. For 10 points, name this ninth symphony by Antonin Dvorak.**

ANSWER: New World Symphony [or Dvorak's Ninth Symphony before word "ninth"]

192-14-86-06102

3. **In this novel, a doctor comments "they really do have rhythm" while performing electric shock therapy on the protagonist. Young Mr. Emerson invites its protagonist to Club Calamus, and helps him get a job working for Lucius Brockway making "Optic White" paint. The narrator eventually lives underground after escaping (*) Ras the Destroyer, who leads a riot in Harlem. A "battle royal" opens this novel, whose protagonist claims that others refuse to see him. For 10 points, name this novel by Ralph Ellison.**

ANSWER: Invisible Man

232-14-86-06103

4. **This experiment occurred thirteen years before Lord Kelvin gave a speech describing black body radiation and this experiment's subject as two "clouds" obscuring physics. This experiment's results led Hendrik Lorentz to develop his idea of length contraction. This experiment made use of a device that could detect the difference in arrival time for a beam of light being split and reflected. That device was an (*) interferometer. For 10 points, name this nineteenth century experiment that failed in its attempt to prove the existence of the luminiferous ether.**

ANSWER: Michelson-Morley experiment

023-14-86-06104

5. **An artist from this present-day country portrayed William Parry's Arctic expedition in *The Sea of Ice* and also created *The Cross in the Mountains*, though he is most famous for an image of a man standing on a rocky precipice. The anti-war New Objectivity movement satirized the social mores of this country, the birthplace of a circle of expressionists known as The (*) Bridge. This country produced the creator of the *Apocalypse* series of woodcuts and the engraving *Knight, Death, and the Devil*. For 10 points, name this nation whose notable artists have included Caspar Friedrich and Albrecht Dürer.**

ANSWER: Federal Republic of Germany [or Bundesrepublik Deutschland]

131-14-86-06105

6. Fischer used the Killiani-Fischer synthesis to deduce the stereochemical structure of this compound. The GLUT1 uniporter moves this compound into mammalian cells. Hexokinase usually phosphorylates this substrate. This monomer forms alpha-linkages in starch. Beta cells release insulin in response to a rise in the concentration of this compound in the blood. It is converted into two pyruvate during (*) glycolysis and is the monomer in glycogen. For 10 points, name this product of photosynthesis, a six-carbon sugar with formula $C_6H_{12}O_6$.

ANSWER: glucose [or $C_6H_{12}O_6$ until it is read]

190-14-86-06106

7. A legend from this country claims that Arash the Archer shot an arrow to determine the extent of its borders. The Dasht-e Kavir and Dasht-e Lut deserts are found near its center. It contains Mount Damavand within the Alborz Mountains in its north, and the (*) Zagros Mountains cut through its western part. Tabriz is found in its province of East Azerbaijan. For 10 points, name this country on the south of the Caspian Sea, found west of Afghanistan and east of Iraq.

ANSWER: Islamic Republic of Iran

192-14-86-06107

8. Following this battle, the losing side classified its full report on damages suffered and did not share it with most of the command structure, leading to further losses. One side in this battle benefited from the recent decryption of code JN25. A diversionary attack on the (*) Aleutian Islands was carried out simultaneously with this battle. Late in this battle, the submarine I-168 torpedoed the *USS Yorktown*, and the Japanese lost four carriers here. For 10 points, name this June 1942 turning point of the Pacific Theater, fought for an island at the center of the Pacific.

ANSWER: Battle of Midway

239-14-86-06108

9. In one of this author's novels, the title character kills a lecherous Egyptian man and solves the Enigmas to win the hand of the Babylonian Queen Astarte. That novel is often published with one of his in which the title character shoots two monkeys chasing a pair of naked women. This author of *Zadig* wrote about a man who marries his ugly love interest in (*) Constantinople and replies "we must cultivate our garden" to rebut the idea that "we live in the best of all possible worlds." For 10 points, name this French author who caricatured Leibniz as Dr. Pangloss in his satire *Candide*.

ANSWER: Voltaire [or Francois-Marie Arouet]

020-14-86-06109

10. In order to avoid marrying a Roman senator, Honoria sent this man a plea for help and a ring, leading this man to claim much of the Roman Empire as a dowry. Following the death of Rugila, this man co-ruled with, then killed, his brother (*) Bleda. This man's attempt to capture Roman Gaul reached as far as Aurelianum, but was ultimately foiled at the Battle of Chalons. During his invasion of Italy, pope Leo I met him at Mantua and peacefully negotiated an end to his military campaign. For 10 points, name this warlord who terrorized Europe as the leader of the Huns.

ANSWER: Attila the Hun

230-14-86-06110

11. **This politician supported the rise of Rudolf von Bennigsen in an attempt to bring the National Liberals directly into the government. He caused controversy by supporting Christian IX's claims to Schleswig and Holstein. Along with his education minister Adalbert Falk, this man passed the (*) May Laws as part of his anti-Catholic Kulturkampf. This leader altered the Ems Dispatch, causing the Franco-Prussian War. For 10 points, name this "Iron Chancellor" of Prussia, instrumental in the unification of Germany.**

ANSWER: Otto von Bismarck

192-14-86-06111

12. **A player has good chances in the endgame if the player has a connected, passed one of these things. One of these is placed in the third or sixth row before a fianchetto (fee-ann-CHET-oh) is performed. The Sicilian Defense involves placing one of these pieces on c5. This piece can perform (*) *en passant*, and it promotes to a more powerful piece upon reaching the eighth rank. They move forward but capture diagonally. For 10 points, identify these weakest chess pieces, of which each side has eight.**

ANSWER: pawns

233-14-86-06112

13. **The strongest type of this interaction is the sigma one, which is found with the pi one in sp^2 hybridization. The repulsion between lone pairs and this type of interaction forms the basis for VSEPR theory. This interaction can be depicted on Lewis dot diagrams. Zero to very small electronegativities divide this type of (*) bond into non-polar and polar. For 10 points, name this type of chemical bond in which valence electrons are shared between two atoms.**

ANSWER: covalent bonding [prompt on chemical bonding; do not accept "ionic bonding"]

066-14-86-06113

14. **James Curtis Hepburn developed a system to transcribe this language into the Latin alphabet. A slang term in it is a word meaning "O-L" or "office lady." It has been theorized that, with its western neighbor, it is part of the broader Altaic group of languages. This language's old formal method of writing was called (*) *bungo*, and examples of honorifics in it include adding the suffix "-san" to people's names. For 10 points, name this Asian language which uses the *hiragana* and *katakana* scripts.**

ANSWER: Japanese [or Nihongo]

052-14-86-06114

15. **This country's anarchic Era of the Princes was ended by Emperor Theodore II. A brutal communist government known as the Derg controlled this country in the 1970s and 80s. This country won at the battle of Adowa under the leadership of (*) Menelik II. This site of the ancient Kingdom of Axum lost its Red Sea coastline in 1991. Its royalty claimed descent from King Solomon. For 10 points, name this East African country from which Eritrea broke away.**

ANSWER: Federal Democratic Republic of Ethiopia

230-14-86-06115

16. **At the beginning of this book, a character discusses a dinner held by a famous Cardinal to defend his argument that princes should not be advised by philosophers. The narrator of its second part describes a place where thirty households are governed by one magistrate and each person takes turns farming six hours a day. Peter (*) Giles and Raphael Hythloday converse with this book's author as it opens, telling him about the title island filled with humanists. For 10 points, name this book by Thomas More whose name has become synonymous with an ideal society.**

ANSWER: Utopia

192-14-86-06116

17. To find the n-th triangular number, one multiplies this constant times the quadratic n-squared plus n. It is hypothesized that this number is the real part of all non-trivial zeros of the Riemann zeta function. Removing the final zero of a binary number is the same as multiplying it by this number. The area of a triangle is equal to this constant times (*) base times height. For 10 points, identify this reciprocal of the smallest prime number, which is also the probability that a fair coin lands heads when flipped.

ANSWER: one-half [or obvious equivalents, such as one over two or 0.5]

233-14-86-06117

18. At the end of this play, a character cheerfully asks a woman to buy him a pair of reindeer gloves. Its author wrote a textual postscript explaining why the two main protagonists could not get married. The male protagonist, who is first seen writing down what the female lead is saying, makes a central bet with Colonel (*) Pickering. This play begins at Covent Garden, where a man becomes fascinated by a Cockney-accented flower girl. For 10 points, name this play in which phonetics professor Henry Higgins tries to make Eliza Doolittle into a lady, written by George Bernard Shaw.

ANSWER: Pygmalion [do not accept *My Fair Lady*]

052-14-86-06118

19. Upon this man's death, his entire corpus of work was passed on to Levin Corbin Handy. He included portraits of Lewis Cass and Winfield Scott in his *Gallery of Illustrious Americans*, and Daniel French used his (*) photographs as inspiration for the Lincoln Memorial. This photographer captured Edgar Allan Poe but is best known for pictures that formed the basis for his exhibition *The Dead of Antietam*. For 10 points, name this photographer whose most famous work depicted the American Civil War.

ANSWER: Mathew Brady

192-14-86-06119

20. This writer's twin brother Roderick was also a playwright and painter. In one of his plays, the mulatto Corporal Lestrade arrests the protagonist, an old man named Makak whose fantasy about escaping comprises the bulk of the play. He also wrote an epic poem loosely modeled on the *Iliad* about the rivalry between the fishermen (*) Hector and Achille. For 10 points, name this Caribbean poet from St. Lucia who wrote *Dream on Monkey Mountain* and *Omeros*.

ANSWER: Derek Walcott

014-14-86-06120

21. Characters in this novel include Lady Jane Sheepshanks and Lady Emily Hornblower. A character in this novel has an affair with the Marquis of Steyne and "plays" Clytemnestra by poisoning Jos for insurance money. Dobbin goes to India after being rejected by this novel's protagonist, who eventually falls for him after George (*) Osborne dies at Waterloo. For 10 points, name this novel about Amelia Sedley and Becky Sharp, the masterpiece of William Makepeace Thackeray.

ANSWER: Vanity Fair

190-14-86-06121

22. This planet is surrounded by a plasma torus generated by the volcanism of one of its moons, and one of its innermost moons is unusually red in color. That moon is named Amalthea, and one of its atmospheric features is Oval BA. This planet was the target of the (*) Galileo probe, which observed the unusual cracked ice on the surface of Europa and discovered a magnetic field around its largest moon, Ganymede. For 10 points, identify this planet home to the Great Red Spot, the largest in the solar system.

ANSWER: Jupiter

234-14-86-06122

23. One sailor from this country defeated Yusuf Adil Khan to conquer Gao for this country. That man, who also conquered Malacca, sailed on the *Flor de la Mar* for this country. Another sailor from this country discovered the “Land of the True Cross,” which this country could claim because part of it lied east of the (*) Tordesillas line. Alfonso de Albuquerque and Pedro Cabral sailed for King Manuel I of this country, who belonged to the House of Aviz. A patron of exploration from this country was Henry the Navigator. For 10 points, name this Iberian country that colonized Brazil.

ANSWER: Kingdom of Portugal and the Algarves

149-14-86-06123



1. Legend holds that Ivan Susanin led a hostile army away from this young tsar while he was living in Kostroma. For 10 points each:

[10] Name this son of Patriarch Filaret, whose coronation as the first Romanov tsar ended the Time of Troubles.

ANSWER: **Michael** I Fyodorovich Romanov

[10] In the Truce of Deulino, Michael made peace with this country, which at the time was ruled by Sigismund III Vasa. In the 18th century, it was partitioned three times and removed from the map.

ANSWER: **Poland** [or **Polish-Lithuanian Commonwealth**]

[10] Prior to the Time of Troubles, this family had ruled Russia for over seven hundred years. Its namesake Norse prince founded the city of Novgorod, and it reached its peak under Ivan the Terrible.

ANSWER: **Rurik** dynasty [or **Rurikid** dynasty]

232-14-86-06201

2. Answer the followin about "laws" of psychology, for 10 points each.

[10] The law of *pragnanz*, which states that individuals organize their experiences in an orderly way, belongs to this school of psychology, whose central tenet is that the whole is greater than the sum of its parts.

ANSWER: **Gestalt** psychology

[10] This law, named for a German physician, states that the just-noticeable difference between stimuli is proportional to their magnitude.

ANSWER: **Weber's** Law

[10] This psychologist's "law of effect" holds that if an organism's behavior produces a good result, that behavior will become more common.

ANSWER: Edward **Thorndike**

229-14-86-06202

3. One of his poems is addressed to "you who hear the sound, in scattered rhymes, of those sighs on which I fed my heart." For 10 points each:

[10] Name this Italian humanist and poet who developed a namesake type of sonnet.

ANSWER: **Petrarch** [or Francesco **Petrarca**]

[10] Petrarch's love sonnets were inspired by a woman of this name, whom he first saw on Good Friday.

ANSWER: **Laura**

[10] All of Petrarch's major lyric poetry was collected in this book, innovatively written in his vernacular Italian rather than Latin.

ANSWER: *Il Canzoniere* [or the *Rime Sparse*]

014-14-86-06203

4. Some members of this class reproduce using a spike of chitin called a gypsobelum, or “love dart.” For 10 points each:

[10] Name this class including slugs and snails.

ANSWER: **gastropods** [or **Gastropoda**]

[10] Gastropods form a class within this largest marine phylum also including bivalves, squids, and octopi.

ANSWER: **molluscs** [or **Mollusca**]

[10] Squids and octopi fall within this class of molluscs.

ANSWER: **cephalopods** [or **Cephalopoda**]

014-14-86-06204

5. The title character of this work declines the marriage proposal of St. John Rivers. For 10 points each:

[10] Name this novel in which Edward Rochester, the husband of Bertha Mason, falls in love with the protagonist.

ANSWER: **Jane Eyre**

[10] *Jane Eyre* was written by this woman, whose sisters were also writers.

ANSWER: **Charlotte Bronte** [prompt on **Bronte**]

[10] This character in *Jane Eyre* befriends Jane at the Lowood School, but dies of tuberculosis in Jane's arms. She is interred under a grave which reads "RESURGAM."

ANSWER: **Helen Burns** [or Helen **Burns**]

192-14-86-06205

6. This scandal was investigated by Montana Senator Thomas Walsh. For 10 points each:

[10] Name this scandal, in which oil reserves at Elk Hills and the namesake location in Wyoming were leased to private oil companies by Albert Bacon Fall.

ANSWER: **Teapot Dome** scandal

[10] The Teapot Dome scandal rocked the administration of this president during the early 1920s.

ANSWER: Warren Gamaliel **Harding**

[10] Albert Fall held this position in the Harding administration; it oversees national parks and the Bureau of Indian Affairs.

ANSWER: **Secretary of the Interior**

014-14-86-06206

7. Uncle Pio discovers Camila Perichole singing in a tavern in this novel. For 10 points each:

[10] Name this novel in which Brother Juniper witnesses the death of five people and writes a heretical treatise about it.

ANSWER: *The **Bridge of San Luis Rey***

[10] In this play by the same author, the Stage Manager narrates the stories from Grover's Corners, including the marriage of George Gibbs and Emily Webb.

ANSWER: **Our Town**

[10] This American playwright wrote *Our Town* and *The Bridge of San Luis Rey*.

ANSWER: Thornton **Wilder**

227-14-86-06207

8. The ocean called; it's the subject of this bonus. For 10 points each:

[10] Name this shallow region of the ocean that is closest to the shore. The skewed transport of sediment along the coastline is known as this region's namesake drift.

ANSWER: **littoral** zone

[10] Deeper regions than the littoral zone often contain these natural habitats produced by their namesake invertebrates. The largest system of them in the world is the "Great Barrier" one.

ANSWER: **coral reefs** [prompt on **reefs**]

[10] Corals can also be found in this deepest zone of the ocean, which is home to many weird fishes.

ANSWER: **benthic** zone

014-14-86-06208

9. This record saw its composer follow up on his work on *Milestones* and continue to move away from hard bop. For 10 points each:

[10] Name this seminal 1959 jazz album whose tracks include "Freddie Freeloader" and "So What."

ANSWER: **Kind of Blue**

[10] *Kind of Blue* was recorded by this jazz trumpet player, whose album *Birth of the Cool* gave "cool jazz" its name.

ANSWER: Miles Dewey **Davis III**

[10] This man played alto saxophone on *Kind of Blue*. He formed a quintet with his brother Nat, and released the song "Mercy, Mercy, Mercy."

ANSWER: Julian Edwin "Cannonball" **Adderley**

192-14-86-06209

10. This technique generally begins with a layer called the *arriccio*. For 10 points each:

[10] Name this mural-painting technique that involves applying paint directly to fresh plaster.

ANSWER: buon **fresco**

[10] Often considered the first Renaissance painter, Giotto painted a number of fresco murals for this chapel in Padua commissioned by the Scrovegni.

ANSWER: **Arena** Chapel

[10] This fresco by Raphael depicts a gathering of ancient philosophers and scientists. Plato, pointing upward, and Aristotle, pointing downward, occupy the center.

ANSWER: *The* **School of Athens** [or **Scuola di Atene**]

185-14-86-06210

11. This writer depicted the decay of Raphael de Valentin in *The Wild Ass's Skin*. For 10 points each:

[10] Name this French novelist of a giant series called *The Human Comedy*, including his *Le Pere Goriot*.

ANSWER: Honore de **Balzac**

[10] In this Balzac novel, the title woman becomes disillusioned after her cousin Charles becomes wealthy trading in India and no longer loves her, so she marries Monsieur Cruchot.

ANSWER: **Eugenie Grandet**

[10] This other French novelist contemporary with Balzac wrote *Toilers of the Sea* and *The Hunchback of Notre-Dame*.

ANSWER: Victor **Hugo**

014-14-86-06211

12. This composer set libretti by Gottfried van Swieten in his oratorios including *The Seasons*. For 10 points each:

[10] Name this composer whose influential string quartets included the “*Erdödy*” *Quartets* and the “*Sun*” *Quartets*.

ANSWER: Franz Joseph **Haydn**

[10] Haydn may be most famous for this G major symphony which features a sudden loud chord in its second movement, from which it derives its nickname.

ANSWER: the “**Surprise**” *Symphony* [or *Symphony No. 94 in G Major*]

[10] Haydn’s last twelve symphonies, including “*The Miracle*” and “*The Clock*,” are collectively referred to as these, named after a certain city.

ANSWER: the **London** symphonies

014-14-86-06212

13. This type of unit was subdivided into maniples and centuries. For 10 points each:

[10] Name this unit that was commanded by a legate and composed of its namesake soldiers. It formed the backbone of the Roman armies.

ANSWER: Roman **legion** [or *legio*]

[10] The Roman legion’s flexibility allowed it to beat the "phalanx" formation at Cynoscephale and Pydna, establishing Roman control over this homeland of Alexander the Great.

ANSWER: **Macedonia**

[10] Roman legions defeated missile troops by using this formation, in which shields covered the front and the top, and if needed, the flanks of an advancing unit.

ANSWER: **Testudo** formation [or **tortoise** formation; or **foulkon**]

153-14-86-06213

14. This coach turned the Sacramento Kings into "the Greatest Show on Court" with Chris Webber and Peja Stojakovic. For 10 points each:

[10] Name this current coach of the Minnesota Timberwolves.

ANSWER: Rick **Adelman** [or Richard Leonard **Adelman**]

[10] Adelman's Kings were stifled by the rival Los Angeles Lakers, who won five championships under this coach. He previously won six coaching Michael Jordan's Chicago Bulls.

ANSWER: Phil **Jackson** [or Philip Douglas **Jackson**]

[10] Under Jackson, the Lakers' triangle offense was anchored by this gigantic center. He also played the genie in *Kazaam*.

ANSWER: Shaquille Rashaun **O'Neal** [or **Shaq**]

232-14-86-06214

15. The possible values for this property are written in the cells of a Punnett square. For 10 points each:

[10] Name this genetic arrangement of alleles affecting a certain characteristic, contrasted with the phenotype.

ANSWER: **genotype**

[10] This principle named for two scientists assumes a constant allele and genotype frequency in a population. It is usually expressed in the equation $p^2 + 2pq + q^2 = 1$.

ANSWER: **Hardy-Weinberg** principle

[10] This phenomenon occurs when a heterozygous genotype yields a different phenotype from either homozygous genotypes. Examples include a straight and curly hair alleles resulting in wavy hair.

ANSWER: **incomplete dominance**

014-14-86-06215

16. This man's half-brother is Teucer. For 10 points each:

[10] Name this Greek hero during the Trojan War. He kills himself after losing a competition to Odysseus regarding his deceased cousin's armor.

ANSWER: **Ajax** the Greater [or Telamonian **Ajax**]

[10] The armor Ajax coveted belonged to this great hero, who killed Hector during the war but was slain by a wound in his heel.

ANSWER: **Achilles**

[10] Achilles had earlier slain this female warrior in battle, which caused him to weep and mourn. After being mocked by Thersites for mourning her, Achilles killed him.

ANSWER: **Penthesilea**

052-14-86-06216

17. The Maclaurin series for this function is x to the n over n factorial. For 10 points each:

[10] Identify this function, the inverse of the natural logarithm, which is used to model exponential growth with a base of two point seven one eight.

ANSWER: **exponential** function [or y equals **e to the x** ; or f of x equals **e to the x**]

[10] Performing this operation on the exponential gives the exponential function. In its simplest form, it returns the slope of the tangent line to a function at a given point.

ANSWER: **derivative** [or **differentiation**; accept **antidifferentiation** until "simplest"]

[10] The exponential function is the basis for this form of the trigonometric functions. The cosine function in this form, also called a catenary, is given by e to the x plus e to the negative x over two.

ANSWER: **hyperbolic** [or **hyperbola**]

234-14-86-06217

18. This party nominated James Weaver for president in 1892. For 10 points each:

[10] Name this agrarian third party whose primary concerns included working-class domination by financial institutions and railroad monopolies.

ANSWER: **Populist** Party [or **People's** Party]

[10] The downfall of the Populist Party came after they endorsed this Democrat in 1896, largely on the strength of his "Cross of Gold" speech.

ANSWER: William Jennings **Bryan**

[10] In 1892, the Populists adopted a platform named for this city, which later was the birthplace of Malcolm X and the headquarters of Berkshire Hathaway.

ANSWER: **Omaha**, Nebraska

014-14-86-06218

19. These diagrams use arrows to indicate all of the forces acting on a central object. For 10 points each:

[10] Name these diagrams used to illustrate exciting problems from physics such as the omnipresent box on a ramp scenario.

ANSWER: **free body** diagrams

[10] Free body diagrams always show the force exerted on the body by gravity, which is proportional to its mass and is given this name.

ANSWER: **weight**

[10] Free body diagrams are often used to model beam structures made up of these triangular units. Physics teachers often require students to build bridges relying on these units.

ANSWER: **trusses**

014-14-86-06219

20. He encounters the central family of the story in which he appears after one character misremembers a house to be in Georgia instead of Tennessee. For 10 points each:

[10] Name this character who remarks that a woman he killed “would have been a good woman if it had been somebody there to shoot her every minute of her life.”

ANSWER: the **Misfit**

[10] The Misfit appears in this short story in which he kills the Grandmother and her family.

ANSWER: “A **Good Man Is Hard to Find**”

[10] This Southern Gothic author wrote about Julian taking a bus ride with his racist mother in “Everything That Rises Must Converge” in addition to writing “A Good Man Is Hard to Find.”

ANSWER: Mary Flannery **O’Connor**

226-14-86-06220

21. Ilocano and Visaya are among the dialects spoken in this country. For 10 points each:

[10] Name this archipelago country whose largest islands are Luzon and Mindanao.

ANSWER: Republic of the **Philippines**

[10] Quezon City is within the metropolitan zone of this capital of the Philippines, the most densely populated city in the world.

ANSWER: **Manila**

[10] The Philippines' Taal Volcano is found within a lake, that is formed from what structure caused by land collapse during a previous volcanic eruption?

ANSWER: **caldera**

192-14-86-06221