

1. Cape Banas indents this body of water, which also includes the Farasan Islands, the Dahlak Archipelago, and the Strait of Tiran. The Hejaz region lies east of this body of water, which contains the Gulf of Aqaba (AH-kah-bah) and flows into the Gulf of Aden. This body of water separates Africa from the Arabian Peninsula. For 10 points, name this body of water that contains the Gulf of Suez and is connected to the Mediterranean Sea by the Suez Canal.

ANSWER: **Red Sea**

021-09-1-02101

2. One attack against this group involved using "Hell Burners" as designed by Giambelli in an attempt to break its crescent formation. One action in Cadiz meant to stop this group was described as "singeing the king's beard" and was done by Francis Drake. This group was commanded by the Duke of Medina Sedonia. This group was scattered by a great storm known as the Protestant Wind. For 10 points, name this group organized to transport troops for the overthrow of Elizabeth I, a large and unsuccessful naval force organized by Philip II of Spain.

ANSWER: Spanish **Armada** [or Invincible **Armada**]

023-09-1-02102

3. This thinker described the maintenance of patterns from the "Ancien Regime," despite attempts to restructure society during the French Revolution, in his book *The Old Regime and the Revolution*. In another work, he predicted the rise of Russia as a superpower to rival to the title place, where separation of church and state and a large republican government were successfully implemented. That work was written while this thinker was studying prison systems with Gustave de Beaumont. For 10 points, name this French author of *Democracy in America*.

ANSWER: Alexis Charles Henri Clerel de **Tocqueville**

020-09-1-02103

4. One type of these objects can lead to teratoma when applied to normal tissues. Transplants of the hematopoietic type of these objects can help treat lymphoma or leukemia. If they can develop into any tissue of the three primary germ layers, they are called pluripotent. Ones that can individually develop into viable organisms are called totipotent. Sources of these cells include mammary glands, bone marrow, and the umbilical vein. For 10 points, name these undifferentiated cells with adult and embryonic types.

ANSWER: **stem cells**

032-09-1-02104

5. One figure described in this work is unable to rise from his throne because his lower half is made of marble. In addition to the King of the Black Isles, this work describes a man who is lowered into a valley of diamonds by a huge *roc* bird. The frame story of this work describes King Shahryar's (SHAH-ree-yarz) plot to marry a new woman every night and execute the bride in the morning, which Scheherazade (sheh-HERR-uh-zahd) thwarts by telling a large number of stories. For 10 points, identify this collection, including the stories of Sinbad, Aladdin, and Ali Baba, that was originally written in Arabic.

ANSWER: *The **Arabian Nights**' Entertainments* [or *The **Thousand and One Arabian Nights***; or ***Alf layla wa-layla***; accept anything reasonable that mentions both **nights** and either the number **1001** or some form of the word **Arabian** or both]

019-09-1-02105

6. "Strain theory," first developed by Robert Merton, holds that this behavior arises due to social structures. "Broken window theory" claims that it can be reduced through community vigilance. Michel Foucault wrote a book about society's evolving reaction to this behavior; that book discusses Bentham's Panopticon, a hypothetical prison, and is entitled *Discipline and Punish*. For 10 points, name this phenomenon, examples of which include felonies and misdemeanors, in which individuals break laws.

ANSWER: **crime**

022-09-1-02106

7. This artist depicted Viscount Lepic and his daughters in *Place de la Concorde*, as well as a woman drying her nape in *After the Bath*. This artist painted a man reading a newspaper at the center of his *New Orleans Cotton Exchange*, and he depicted a woman with a glass of the titular drink in *The Absinthe Drinker*. One of his few sculptures is of a "Little 14 year-old Dancer." The title figures in his painting *Musicians in the Orchestra* accompany a ballet. For 10 points, name this Impressionist painter known for his depictions of horse races and ballet dancers.

ANSWER: Edgar **Degas**

024-09-1-02107

8. The narrator of one of this author's works is led by Scipio Africanus through a Temple of Venus to a place where a bunch of eagles are "democratically" fighting over mates. This author of *The Parlement of Foules* wrote a work in which he personally describes the adventures of Sir Thopas. In that work, this author also wrote about Nicholas's plan to dupe his landlord John and sleep with Alison, as well as Palamon and Arcite's competition for the hand of Emily. That work contains a Second Nun, Reeve, Miller, Knight, and Wife of Bath, all of whom are on a pilgrimage to Thomas Becket's tomb. For 10 points, name this author of *The Canterbury Tales*.

ANSWER: Geoffrey **Chaucer**

015-09-1-02108

9. Members of one group in this conflict stormed the Northampton courthouse while it was in session. James Bowdoin was governor of the state in which this event took place. The climactic battle of this conflict occurred during a snowstorm and saw Benjamin Lincoln's militia prevail at Petersham. This rebellion was co-led by Job Shattuck. This revolt culminated in a storming of the Springfield armory. This rebellion resulted in calls for a government stronger than the Articles of Confederation provided. For 10 points, name this 1786-87 uprising in Massachusetts.

ANSWER: **Shays's** Rebellion [do not accept "Shay"]

026-09-1-02109

10. These structures feature Kohn's pores, and are lined with the surfactant DPPC. Infections of these structures with fluids results in pneumonia. The most prominent structures with this name end a path from the bronchi through the bronchioles. The breakdown of elastin in the walls of these structures characterizes emphysema. For 10 points, name these sacs responsible for gas exchange in the lungs.

ANSWER: **alveoli** [or **alveolus**]

012-09-1-02110

11. One treaty concerning its creation undid the Clayton-Bulwer Treaty and was signed by Pauncefote. A failed treaty that would have allowed for its construction was the Hay-Herrán Treaty. This structure was built in a country recently independent from Colombia, and its construction began after the signing of the Hay-Bunau-Varilla Treaty. For 10 points, name this structure whose construction caused many deaths from yellow fever, which connects the Caribbean Sea and Pacific Ocean in its namesake country.

ANSWER: **Panama Canal**

023-09-1-02111

12. One work by this author begins with an unprecedented coldspell in August, and the maid Sabina helps the Antrobus family survive through an Ice Age. This author won a Pulitzer for a work in which Brother Juniper investigates the collapse of an Inca bridge in Peru. In another of his plays, Simon Stimson commits suicide and Emily Webb relives her twelfth birthday. Stage Manager directs the play in which the dead observes the living from their graves, set in Grover's Corners. For 10 points, name this author of *The Bridge of San Luis Rey* and *Out Town*.

ANSWER: Thornton Niven **Wilder**

034-09-1-02112

13. One ruler of this country held the Multan Conference to explore building nuclear weapons. A military dictatorship in this country was led by Ayub Khan. This country lost the Kargil War, and also lost a war that led to the independence of a country with capital at Dhaka. This country's own independence movement was led by Muhammad Ali Jinnah. A 1999 coup in this country brought to power Pervez Musharraf, who was recently overthrown. For 10 points, name this Islamic country that often clashes with India, with capital at Islamabad.

ANSWER: Islamic Republic of **Pakistan** [or Jamhuryat Islami **Pakistan**]

021-09-1-02113

14. One method of creating these compounds involves hydroboration and oxidation of alkenes. The Jones reagent converts these into carboxylic acids, and two of these are needed for the creation of an ether in the Williamson synthesis. Oxidation of the secondary type of these creates ketones, and they include one that is produced during petroleum refining or by fermentation of sugars and has formula C_2H_6O , the "ethyl" variety. For 10 points, name this class of organic compound that contains a hydroxyl group, the simplest of which is methanol.

ANSWER: **alcohols**

032-09-1-02114

15. This author wrote the famous scene in which a lobster devours a squid in the first novel of his Trilogy of Desire about the business tycoon Frank Cowperwood, *The Financier*. In another novel by this author, George Hurstwood embezzles money to elope with the title character, but that member of the Meeber family eventually abandons him. In his most famous work, the protagonist goes on a canoe ride with his pregnant girlfriend contemplating to kill her, and she falls on her own. For 10 points, name the writer who created Clyde Griffiths and wrote *Sister Carrie* and *An American Tragedy*.

ANSWER: Theodore Herman Albert **Dreiser**

034-09-1-02115

1A. Explosive ones are often filled with igneous rocks, such as tuff and rhyolite. Name these volcanic features that emerge when the land collapses following eruptions.

ANSWER: calderas

1B. This Milan mural was commissioned by Ludovico Sforza. Name this depiction of a meal eaten by Jesus with his twelve apostles by Leonardo da Vinci.

ANSWER: *The Last Supper*

2A. It flows by Rouen in the north, and it meets the sea at Le Havre (lay HOV). Name this French river that runs through Paris.

ANSWER: the Seine

2B. These pores in leaves are formed by a pair of guard cells, which controls their size. Name these pores, through which carbon dioxide and oxygen are exchanged and water vapor is released in transpiration.

ANSWER: stomata

3A. This Christian Democrat received the Charlemagne prize in 2008 "for her work to reform the European Union;" earlier, she was elected in 2005 to replace Gerhard Schroeder. Name this Chancellor of Germany.

ANSWER: Angela Dorothea Merkel [or Angela Dorothea Kasner]

3B. Name the monetarist author of *Capitalism and Freedom* who was the leading economist of the Chicago School.

ANSWER: Milton Friedman

4A. This is a 10-second calculation question. Solve for x: $8x + 4 = 7x - 9$.

ANSWER: -13

4B. This is a 10-second calculation question. Add: $16.459 + 2.473$.

ANSWER: 18.932

5A. The poem "The Hand That Signed the Paper" is often given as a textbook example of what literary device, in which a part of an object represents the whole object?

ANSWER: synecdoche (seh-NEHK-dough-kee)

5B. His invention of the phonograph first gained him fame, though the device created tinfoil records that could only be played a few times. Name this "Wizard of Menlo Park," the principal inventor of the lightbulb.

ANSWER: Thomas Alva Edison

6A. This is a 20-second calculation question. If you draw two cards consecutively (without replacement) from a standard 52-card poker deck, what is the probability that both are spades?

ANSWER: 1/17 [or 3/51 or 12/208 or 156/2652 or equivalents]

6B. This is a 20-second calculation question. Add: $(7x^3 + 7x^2 - 8x + 9) + (7x^3 - 5x^2 + 3x + 1)$.

ANSWER: **$14x^3 + 2x^2 - 5x + 10$**

7A. It stars Kevin Spacey as Lester Burnham, an anagram of "Humbert Learns." Name this 1998 film that follows a man's last days on earth as he rediscovers happiness.

ANSWER: **American Beauty**

7B. Name the governor of Louisiana, an opponent of the proposed stimulus program, who delivered the Republican response to President Obama's February 2009 address to a joint session of Congress.

ANSWER: Piyush "Bobby" **Jindal**

8A. This language, unlike a near neighbor, does not use the subjunctive with its word for "to hope," "esperer" (es-peh-RAY). Name this language in which *A la recherche de temps perdu* was written.

ANSWER: **French** [or **Francais**]

8B. Its third edition was widely criticized for combat mechanics problems, as when a spearman had a nonzero chance to beat a tank, leading to an overhaul for the fourth edition. Name this series of nation-building games created by Sid Meier.

ANSWER: **Civilization**

9A. This is a 30-second calculation question. If theta is an angle in the first quadrant, and sine theta is 2/5, find cosine theta.

ANSWER: **sqrt(21)/5** [or **radical 21 over 5** or equivalents]

9B. This is a 30-second calculation question. You fill up your car with gasoline when your odometer reads 20368.6. Your next fill up occurs with your odometer reading 20701.1. How far did you travel on that tank of gas?

ANSWER: **332.5** miles

10A. This quantity is equal to the ratio of voltage to current. Name this quantity that vanishes in superconductors.

ANSWER: **resistance**

10B. This term is often used to describe novels such as *Frankenstein* and *Pamela*. Give this term, which refers to a novel told through a series of documents, often letters.

ANSWER: **epistolary**

1. The explorer Yermak claimed Siberia for this man, and this man's forces captured Kazan. This ruler curbed the power of the Belsky and Shuisky families by initiating the Oprichnina. This man created the Zemsky Sobor, Russia's first parliament. This man supposedly had the architect of Saint Basil's Cathedral blinded so that he could never recreate the feat. The Time of Troubles was initiated when this ruler's son, Feodor I, died, leaving no heir. For 10 points, name this first czar of Russia, who had an incredibly cruel reputation.

ANSWER: **Ivan IV** Vasilyevich of Russia [or **Ivan the Terrible**; or **Ivan Grozny**; prompt on **Ivan**]

035-09-1-02117

2. The Delphi programming language is a variation of Pascal developed to encourage this paradigm. Its central principles include encapsulation, the concept of hiding internal data from public access, and inheritance, or the ability to create derived classes. Languages designed explicitly to support this method of programming include Smalltalk, though common languages like C++ and Java employ it extensively. For 10 points, name this programming paradigm that focuses on using the namesake instances of classes to represent problems.

ANSWER: **object-oriented** programming [prompt on anything involving **objects**]

022-09-1-02118

3. In the second novel of this author's Dantesque Trilogy, Violet Trace mutilates the corpse of her husband's lover. The navel-less Pilate is the aunt and Guitar Baines is the childhood best friend of another character created by this author, Milkman Dead. Claudia MacTeer's family takes in Pecola Breedlove, protagonist of this author's *The Bluest Eye*. The murder of her best-known work's title character haunts its protagonist, who loves Paul D, named Sethe. For 10 points, identify this author of *Song of Solomon* and *Beloved*.

ANSWER: Toni **Morrison** [or Chloe Ardelia **Wofford**]

029-09-1-02119

4. Items falling outside of this description are described using a word meaning "torn," "tref" (TRAYF). Meat described by this word must be obtained from an animal killed in the "shehitah" (sheh-HEE-tuh) process. A circle containing the letter U is one common American symbol of certification for this status. It excludes birds of prey, shellfish, pork, and mixtures of milk and meat. For 10 points, give this word for food that is acceptable in Judaism.

ANSWER: **kosher** [or **kashrut**; or **kashrus**]

019-09-1-02120

5. In one work by this writer, Edgar and Alice live in a granite fort on a desert island and torment each other. This author created a student who is able to see an apparition of a milkmaid, Arkenholtz. In another work by this author, the title woman aspires to open a hotel on Lake Como, and is shocked when her valet decapitates the finch Serena. This author wrote about Jean, whose seduction by the title character results in her suicide with a razor. For 10 points, *The Ghost Sonata* is a play by what Swedish author of *Miss Julie*?

ANSWER: Johan August **Strindberg**

034-09-1-02121

6. This layer is home to the winter and equatorial anomalies, as well as an electrostatic field known as the equatorial electrojet. The NASA AEROS probes were launched to explore its F layer, which is also called the Appleton layer. Its D layer is affected by polar cap absorption during solar proton events. Its other sections include the E layer, named after Kennelly and Heaviside, and the sporadic E layer, which can cause hops in radio signals. For 10 points, name this inner layer of the magnetosphere, named for its high concentration of charged particles.

ANSWER: **ionosphere** [prompt on **magnetosphere** before it is read]

040-09-1-02122

7. This composer wrote three sonatas and three partitas for solo violin. His wife was the copyist of one version of his six suites for Cello. That wife was who he wrote his *Anna Magdalena's Notebook* for. This composer used a Picander text to write the *Saint Matthew Passion*. He wrote the "Air on the G String" and a series of six concertos named after a Margrave. For 10 points, name this Baroque composer of *Toccatina and Fugue in D minor* for organ, *The Goldberg Variations*, and *The Brandenburg Concertos*.

ANSWER: **Johann Sebastian Bach** [prompt on **Bach**; prompt on **J. Bach**; do not accept "J. C. Bach" or "C. P. E. Bach"]

040-09-1-02123

8. The paper which introduced this experiment used the thought experiment of a gamma-ray microscope. This statement arises when there is a non-zero commutator of any two observables, such as energy and time. The term " \hbar over 2 pi" appears on one side of the inequality involved with this statement, which is fundamental to the Copenhagen interpretation. This principle states that a particle's position and momentum cannot be both accurately measured. For 10 points, name this key principle of quantum mechanics named for a German physicist.

ANSWER: **Heisenberg Uncertainty Principle** [or **Heisenberg Indeterminacy Principle**; prompt on partial answer]

028-09-1-02124

9. One portion of this treaty ended the eighty year long Dutch Revolt, and another overruled the Edict of Restitution. This treaty is the collective name for treaties signed in Münster (MUHN-stir) and Osnabruck. This treaty upheld the Peace of Augsburg. This treaty broke a siege of Prague, where a defenestration began the war that this treaty ended. That war ended by this treaty is often divided into four different phases. This treaty was signed after Gustavus Adolphus died during the war it ended. For 10 points, name this peace that ended the Thirty Years' War.

ANSWER: Peace of **Westphalia** [or Treaty of **Münster** before "Restitution"]

003-09-1-02125

10. This figure and his mother were set afloat from Argos in a wooden chest. This man stole the one eye of the Graeae (GREYE-eye). He obtained winged sandals, a pouch, and Hades' invisibility cap. He was fathered by Zeus in the form of a shower of gold. This figure married the daughter of Cepheus (SEH-fee-us) and Cassiopeia (CAA-see-oh-PAY-uh) after rescuing that daughter from the sea monster Cetus (SAY-tus). With the aid of Athena's polished shield, this Greek hero killed the eldest of the Gorgons. For 10 points, name this husband of Andromeda and killer of Medusa.

ANSWER: **Perseus**

005-09-1-02126

11. After losing to Pat Brown in the 1962 California gubernatorial election, this man vowed that "you won't have [him] to kick around anymore." Six years later, this man sought and earned the Republican nomination for president, then defeated Hubert Humphrey in the general election. During his re-election campaign led by CREEP, members of his re-election committee were caught breaking into the Democratic Party headquarters. For 10 points, name this president who resigned amid suspicion that he had ordered a break-in at the Watergate Hotel.

ANSWER: Richard Milhous "Dick" **Nixon**

003-09-1-02127

12. One of this author's poems asks "Can you love an eagle/ Wild or tame?" and ends with an instruction to kill the title figure "and let his soul run wild." This poet wrote that he likes Bach, bop, and Bessie in "Theme for English B." Another of his works features a "Negro" with "ebony hands" playing a "drowsy syncopated tune," and is called "The Weary Blues." In another poem, this author wonders whether the title concept would "stink like rotten meat" or "dry up like a raisin in the sun." For 10 points, name this poet of the Harlem Renaissance who wrote "The Negro Speaks of Rivers" and "A Dream Deferred."

ANSWER: Langston **Hughes**

032-09-1-02128

13. Two identities involving this type of number are named for Cassini and Catalan, and these numbers were used to prove that no general formula exists to solve Diophantine equations. The ratio of successive terms of this sequence of numbers approaches one plus root five divided by two, or the golden ratio, and it was first studied as a model of the population growth of rabbits. For 10 points, name this sequence of numbers in which each number is equal to the sum of the previous two, beginning one, one, two, three.

ANSWER: **Fibonacci** sequence [or **Fibonacci** numbers]

025-09-1-02129

14. Kermit Roosevelt was an American intelligence officer who oversaw the Operation Ajax, a CIA operation that helped overthrow this country's Prime Minister, Mohammad Mossadegh. This country was formerly ruled by the Pahlavi dynasty, which was overthrown in a revolution that saw the capture of American hostages and contributed to Jimmy Carter's loss to Ronald Reagan. This country notably follows Shi'a Islam and its government is a theocratic Islamic Republic. For 10 points, name this country whose President is Mahmoud Ahmadinejad, who lives in Tehran.

ANSWER: **Iran** [or **Persia**]

021-09-1-02130

15. One author wrote a memoir of this place called *If This Is A Man*. Primo Levi wrote about this place in his collection *The Periodic Table*, and Stingo observes the relationship of a woman who lived here with the abusive Nathan Landau and chose to have her daughter killed in Styron's *Sophie's Choice*. Elie Wiesel recalls marching from here to Buchenwald, and, in a comic, Art Spiegelman's father is represented as a mouse and sees the sign "Arbeit Macht Frei." For 10 points, name this concentration camp, the focus of the books *Maus* and *Night*.

ANSWER: **Auschwitz** [or **Auschwitz-Birkenau**; or **Auschwitz Two**]

027-09-1-02131

1. The ratio of the land area being used for this process, to the amount of labor and capital required, determines whether it is the "extensive" or "intensive" kind. In recent years, controversy has erupted over the environmental impact of a form of this activity practiced in Southeast Asia, known as "slash-and-burn." Anthropologists distinguish the various forms of this practice from foraging, or hunter-gatherer behavior. What practice, tied to the development of a settled culture, is defined, for 10 points, as the purposeful raising of plants or animals as food?

ANSWER: **agriculture** [or **farming**]

019-09-1-02132

2. In one book, this man argued that because we can envision ourselves in the situation of others, we feel sympathy for them and adopt morality. In addition to writing *The Theory of Moral Sentiments*, this author praised the division of labor by noting that a pin factory could produce more pins if each worker performed only one task. This critic of mercantilism and proponent of free trade also introduced the idea of the invisible hand of the free market. For 10 points, name this Scottish economist, the author of *The Wealth of Nations*.

ANSWER: Adam **Smith**

021-09-1-02133

3. These organisms are affected by the Israel Acute Paralysis Virus, which is transmitted by the Varroa mite. Some of them perform a figure-eight action known as the waggle dance. These organisms are in genus *Apis*. Their population in North America and Europe has drastically declined due to Colony Collapse disorder. An "Africanized" version of these organisms is known for aggressively defending their turf. For 10 points, name these insects that produce a sweet substance coveted by bears.

ANSWER: **honeybees** [or **Apis** before read; prompt on **bees**]

040-09-1-02134

4. In this novel, the professor Monsieur Waldman teaches chemistry to the main character, whose friend Henry comes to nurse him until Justine Moritz is accused of murder. That character's father went to Milan and brought back a girl Elizabeth Lavenza, who is later strangled on her wedding night. The author of the opening letters of this novel is an explorer named Robert Walton, who picked up the title character, Victor, in the Arctic. For 10 points, name this science fiction novel by Mary Wollstonecraft Shelley about an eight-foot-tall monster.

ANSWER: **Frankenstein; or, the Modern Prometheus**

012-09-1-02135

5. This scientist discovered that diamonds are made from carbon. With Laplace, he used a calorimeter to investigate the ratio of heat to carbon dioxide produced when burning different materials. This man disproved the existence of phlogiston. He wrote *Methods of Chemical Nomenclature*, which developed the basis of the nomenclature used today. This man named hydrogen and oxygen and came up with the law of conservation of mass. For 10 points, name this French scientist, who is considered the father of modern chemistry, and who was beheaded in the French Revolution.

ANSWER: Antoine-Laurent **Lavoisier** (lev-WAH-see-ay)

001-09-1-02136