

1. One fictional member of this profession learns that the deceased Ratchett is actually Cassetti, the murderer of the young Daisy Armstrong. Practitioners of this profession include Miss Marple and Hercule Poirot, both created by Agatha Christie. A more famous member of this profession lives at 221B Baker Street, jumps off Reichenbach Falls with Dr. Moriarty, and is assisted by Dr. Watson. For 10 points, name this profession practiced by Arthur Conan Doyle's Sherlock Holmes.

ANSWER: **detectives** [accept equivalents]

080-10-18-03101

2. When this man told his family that he was running for president, his mother responded "President of what?" This President initiated the SALT II talks and signed a treaty with Omar Torrijos (tor-REE-yos) that returned the Canal Zone to Panama. Minutes after this President left office, the Iran hostage crisis ended. This man was the main impulse behind Begin and Sadat signing the Camp David Accords. For 10 points, name this Georgia peanut farmer who was elected president in 1976 after defeating the incumbent, Gerald Ford.

ANSWER: Jimmy **Carter** [or James Earl **Carter**, Jr.]

026-10-18-03102

3. These animals do not produce very concentrated urine because their kidneys lack loops of Henle and instead rely on the colon to reabsorb water. A suborder in this class of animals uses infrared sensitivity to detect prey; those animals are in the Squamata group that includes the Gila monster. Their thin skin consists of a horny epidermis, leaving them to be protected by armor-forming scutes. Herpetologists study these animals, which use lungs and lay amniotic eggs. For 10 points, identify this cold-blooded class of animals that includes turtles and snakes.

ANSWER: **Reptilia** [or **reptiles**]

020-10-18-03103

4. Critical moments in this film feature the song "Non, Je Ne Regrette Rien" by Edith Piaf. Eames, who is employed as a forger in this film, leads the characters into a mountain fortress at the end. There, a dying Maurice Fisher breaks up his energy empire, just as his rival, Ken Watanabe's character, descends into limbo. Ending with a shot of Leonardo DiCaprio's rotating totem, it sees Ellen Page construct cities and Joseph Gordon-Levitt navigate a hotel room without gravity all in a dream realm. For 10 points, name this 2010 Christopher Nolan film about implanting an idea.

ANSWER: **Inception**

079-10-18-03104

5. In plants, this element opposes the action of potassium to close stomata while in the body, the sarcoplasmic reticulum stores and releases ions of this element. In the body this metal is typically found in the form of hydroxyapatite and the parathyroid hormone increases concentration of it in the blood. This element is also released into the blood through a process of resorption regulated by osteoclasts. In nature, this metal is found in the minerals gypsum and limestone. For 10 points, name this alkaline earth metal found in bones.

ANSWER: **calcium**

064-10-18-03105

6. One character in this novel dies saying “Darby M’Graw! Darby M’Graw!” in the town of Savannah. The antagonist owns the Spy-Glass Tavern, is the rival of George Merry, and takes a page out of a Bible to create a Black Spot. Another character presents a hunk of parmesan cheese to win Ben Gunn’s loyalty. Opening with Billy Bones in hiding at the Admiral Benbow Inn, this novel ends with the surrender of Long John Silver to Dr. Livesey and Jim Hawkins. For 10 points, identify this novel about pirates, written by Robert Louis Stevenson.

ANSWER: **Treasure Island**

020-10-18-03106

7. One of this man's characters marries Helen of Troy in the second part of a two-part play after seducing Gretchen in the first part. This man wrote a semi-autobiographical novel about a young man with unrequited love for Charlotte, which spawned a rash of copycat suicides across Napoleonic Europe. This man's *Wilhelm Meister's Apprenticeship* is considered the prototype of the bildungsroman (BILL-doongs-roe-MAHN). For 10 points, name this German romantic who wrote *Faust* and *The Sorrows of Young Werther*.

ANSWER: Johann Wolfgang von **Goethe** ["GUR-tuh"]

003-10-18-03107

8. James Garfield used trapezoids to prove this result, which is also proven in Euclid's *Elements*. With integral values for its three variables, it gives rise to namesake "triples," which cannot be found for exponents greater than two, according to Fermat's Last Theorem. It is a special case of the cosine law, where the angle is ninety degrees. For 10 points, name this theorem which is stated as "A squared plus B squared equals C squared."

ANSWER: **Pythagorean** theorem

024-10-18-03108

9. This symbol is used to denote a quantity that is roughly equal to 1 over 137, known as the fine structure constant. In physics, it denotes a particle that reacts with three of itself to produce carbon in a nuclear fusion process. That particle, which consists of two protons and two neutrons, is equivalent to a helium nucleus. In biology, this symbol denotes the most powerful male species in a community. For 10 points, name this first letter of the Greek alphabet.

ANSWER: **alpha**

064-10-18-03109

10. One part of this modern day country agreed to outlaw slavery as part of the Sand River Convention. Leander Starr Jameson led a raid in this country, which was ruled by the National Party from 1948 until 1994. The Sharpeville Massacre resulted from protests against this country’s pass laws, which were also a factor in an uprising in its Soweto Township. For 10 points, name this country which has been led by the ANC since the end of apartheid.

ANSWER: Republic of **South Africa** [or **RSA**]

015-10-18-03110

11. These objects can develop large cracks called bergschrunds (BERG-shrunds), which can further lead to the formation of cirques (SIRKS). The firm line separates the ablation and accumulation zones of these objects. The movement of these masses is responsible for the creation of moraines and drumlins, which are accumulations of till carried by these objects. These objects hold the majority of the world's fresh water. For 10 points, name these large, flowing masses of ice.

ANSWER: **glaciers**

023-10-18-03111

12. This author wrote a novel in which the United States is ruled by the tyrannical Buzz Windrip. In another novel by this author of *It Can't Happen Here*, the shooting of Zilla by her husband Paul Riesling causes Myra's husband to resent his middle-class lifestyle. This man created the fictional city of Zenith, Winnemac, the home of the minister Elmer Gantry. In another of his novels, Erik Valborg has an affair with Carol Kennicott, who grows dissatisfied with Gopher Prairie, Minnesota. For 10 points, name this author of *Main Street* and *Babbitt*.

ANSWER: Sinclair **Lewis**

079-10-18-03112

13. This feat was accomplished by both Lee Richmond and John Montgomery Ward in 1880. In 2010, Dallas Braden and Roy Halladay accomplished this feat within twenty days of each other. Don Larsen accomplished it during the World Series, and it has also been accomplished by Sandy Koufax and Cy Young. For 10 points, name this feat in which a pitcher does not allow any opposing player to reach base.

ANSWER: pitching a **perfect game**

024-10-18-03113

14. In one work, this thinker uses Odysseus's "lament in Scylla" as an example of "character indecorous and inappropriate." In that work, this man wrote of the necessity of space-time unity and gave the term for a character's self-discovery, *anagnorisis* (an-uh-gnoh-REE-sis). He also defined *peripeteia* (pay-ree-puh-TAY-uh) as a turning point and *hamartia* (huh-MAR-tee-uh) as a character's flaw in ancient Greek tragedy, which he felt should produce a purging of emotion called *catharsis*. For 10 points, name this philosopher who wrote *Poetics* and *Nichomachean Ethics*, a student of Plato.

ANSWER: **Aristotle**

079-10-18-03114

15. One process that takes place in these structures involves a combination with coenzyme A to create acetyl CoA. That process takes place in this organelle's matrix. Another process that takes place in this structure creates a proton gradient. This organelle is the location of the Krebs cycle and the electron transport chain. This double-membraned structure has an inner membrane that is folded called the cristae. For 10 points, name this organelle that is responsible for the production of ATP and is often called the powerhouse of the cell.

ANSWER: **mitochondria** [or **mitochondrion**]

023-10-18-03115

1A. Name the current Pope who, in September 2010 kicked off his visit to Great Britain by stopping in Edinburgh (ED-n-bur-uh), the first time he has made a Papal state visit to the U.K.

ANSWER: Pope **Benedict XVI** [or **Benedictus XVI**; or **Benedetto XVI**; or **Benedikt XVI**; or Joseph Alois **Ratzinger**]

1B. What scientific director of the Manhattan Project, known as the father of the atomic bomb, names an approximation with Max Born?

ANSWER: J. Robert **Oppenheimer** [or **Julius** Robert **Oppenheimer**; or Jerome Robert **Oppenheimer**]

2A. Name the type of diagram used in chemistry that plots pressure versus temperature and contains a triple point where a substance coexists as a gas, liquid, and solid.

ANSWER: **phase** diagram

2B. Name the sculptor who carved the visages of Jefferson Davis, "Stonewall" Jackson, and Jefferson Davis into Stone Mountain, Georgia in a fashion similar to his most famous work, Mount Rushmore.

ANSWER: John Gutzon de la Mothe **Borglum**

3A. This is a 10-second calculation question. What is the area of a square with perimeter 16?

ANSWER: **16**

3B. This is a 10-second calculation question. What is $x^2 + 3x - 4$ divided by $x - 1$?

ANSWER: **x + 4**

4A. Prophase, metaphase, anaphase, and telophase are the phases of what process of eukaryotic chromosome division?

ANSWER: **Mitosis**

4B. What Virginia-born man was known as "His Accidency" after succeeding William Henry Harrison to become the tenth president of the U.S.?

ANSWER: John **Tyler**, Jr.

5A. This is a 20-second calculation question. What is the cube root of the square of x^3y^6 ?

ANSWER: **x^2y^4**

5B. This is a 20-second calculation question. What is the product of cosine of pi radians and sine of pi over 2 radians?

ANSWER: **-1**

6A. What Willa Cather novel concerns the establishment of a diocese in New Mexico by Bishop Jean Marie Latour?

ANSWER: **Death Comes for the Archbishop**

6B. What novel by Ivan Turgenev describes the conflict between liberal Russian landowners and the nihilist Bazarov?

ANSWER: **Fathers and Sons** [or **Fathers and Children**; or **Ottsy i Deti**]

7A. This is a 30-second calculation question. What is the geometric mean of the numbers 2.5, 5 and 10?

ANSWER: **5**

7B. This is a 30-second calculation question. What is the probability of drawing a face card from a standard deck of cards?

ANSWER: **3/13** [or **3:13**]

8A. What experimental American composer created a piece that instructs the player to sit silently for four minutes and thirty three seconds?

ANSWER: John Milton **Cage**, Jr.

8B. What ancient Egyptian board game which means "passing" involves throwing sticks to determine how to move your pawns?

ANSWER: **senet**

9A. What Democrat from California is currently the Speaker of the House?

ANSWER: Nancy **Pelosi**

9B. What tsar won the Great Northern War against Sweden and was inspired by his tour of Europe to modernize Russia?

ANSWER: **Peter the Great** [or **Peter I** of Russia; prompt on **Peter**]

10A. What is the common English meaning of the Japanese word "arigato" (ah-ree-GAH-toe), the French word "merci" (mare-SEE), and the Spanish word "gracias?"

ANSWER: "**thank you**"

10B. What ram's horn is blown by Jews in synagogues during Rosh Hashanah and Yom Kippur?

ANSWER: **shofar**

1. In 1941, the British used this location as a rear guard stand while evacuating from Volos and Piraeus. A battle here occurred five days after the victors landed at Anthela. This battle was won after the troops of one side followed Ephialtes around the defenders' position, which was concentrated at the Middle Gate. That maneuver ended a two-day assault by the Ten Thousand Immortals of Persia against a small force of hoplites. For 10 points, name these "hot gates" that were the location of the last stand of the Spartan king Leonidas.

ANSWER: **Thermopylae**

003-10-18-03117

2. Relics found near Gibraltar provide evidence to this species' Mousterian culture. Recent evidence suggests this species may have cross-bred with *homo sapiens*. The first evidence of this species was discovered in 1829 at Engis, and this species is named for a German valley where several early specimens were discovered. This species had enlarged craniums and pronounced eyebrow ridges. For 10 points, name this close relation of modern humankind that disappeared 25,000 years ago.

ANSWER: **Neanderthals**

002-10-18-03118

3. George Lakoff and Mark Johnson published a book of these that *We Live By*. The inappropriate use of this figure of speech is called "catachresis" (cat-uh-CREE-sis) while an extended one of these is called a "conceit." Examples of this figure of speech include Shakespeare's "all the world's a stage." This figure of speech is often described as a simile that does not use "like" or "as." For 10 points, name this figure of speech in which one object is compared to an unrelated one in order to bring out a hidden similarity.

ANSWER: **metaphor**

080-10-18-03119

4. One extension of this law states that the efficiency of a Carnot cycle is equal to the difference in temperature between the hot and cold reservoirs, divided by the temperature of the hot reservoir. One variant of this law states that one can never achieve 100% efficiency, while another variant states that the total entropy of the universe is increasing. For 10 points, name this law which most commonly states that heat never spontaneously flows from a cold source to a hot source.

ANSWER: **Second Law of Thermodynamics**

064-10-18-03120

5. The Coco River forms part of this country's southern border, and it also contains Lake Yajoa (yah-HO-ah) in its west. The port city of Amapala can be found on its access to the Pacific Ocean. The Bay Islands are off its northern shore in the Caribbean Sea. In addition to containing the majority of the Gulf of Fonseca, this country also borders Nicaragua, El Salvador, and Guatemala. For 10 points, name this Central American country with its capital at Tegucigalpa (teh-GOO-CHEE-gul-pah).

ANSWER: Republic of **Honduras**

083-10-18-03121

6. Arguments for the winning side in this case were made by Linda Coffee and Sarah Weddington. *Doe v. Bolton* was a companion to this case, which came to include the intervening of Dr. James Hallford. The decision in this case was based in part on the precedent of the case *Griswold v. Connecticut*. The majority decision in this case was written up by Harry Blackmun and supported the cause of Norma McCorvey. For 10 points, name this 1973 Supreme Court case that legalized abortions.

ANSWER: **Roe v. Wade**

023-10-18-03122

7. This event disrupted a certain farmer's plans to expand "New Helvetia." Ethnic tensions that resulted from this event culminated in an "exclusion act" against workers from China. This event made the denim overall-selling Levi Strauss open shop. Techniques pioneered during this event include "coyoteing" and "dredging," modifications of "panning." Participants in this event were known as 49ers. Begun by a discovery at Sutter's Mill, for 10 points, name this hunt for a certain precious resource that occurred in California.

ANSWER: California **Gold Rush**

020-10-18-03123

8. According to one story, this man was carried up to the heavens during a storm, but not before commanding the people to worship him as Quirinus. According to legend, he saw twelve vultures when his brother only saw six, and he grew furious when his brother jumped over his wall. He killed Amulius and restored his grandfather Numitor to the throne of Alba Longa. He was the son of Rhea Silvia and Mars, and was fed by a she-wolf as a child. For 10 points, name this brother of Remus and founder of Rome.

ANSWER: **Romulus**

015-10-18-03124

9. This man included *Satan Arousing the Rebel Angels* in his illustrations of *Paradise Lost*. His works of prophetic poetry included books focusing on Los and Urizen. He also wrote a poem asking the title animal "Who named thee?" and one about an animal "burning bright, in the forests of the night." For 10 points, name this British Romantic poet who wrote "The Lamb" and "The Tyger," both of which appear in his collection *Songs of Innocence and Experience*.

ANSWER: William **Blake**

045-10-18-03125

10. This state's Mount Moriah Cemetery features the graves of Potato Creek Johnny, Calamity Jane, and Wild Bill Hickok, who died in this state's mining town of Deadwood. Other attractions in this state include the Black Hills National Forest and the Corn Palace. This state's southwest is the location of Badlands National Park and a massive sculpture of four presidents. For 10 points, name this state that contains Mount Rushmore.

ANSWER: **South Dakota**

004-10-18-03126

11. This country's most popular puppet plays in the eighteenth century portrayed couples who performed love suicides. This country's classic forms of poetry include tanka and renga, as well as a shorter form that always includes a season word. The Heian court is the setting of this country's classic novel *The Tale of Genji*. For 10 points, name this Asian country whose poets created the haiku.

ANSWER: **Japan** [or **Nippon**]

004-10-18-03127

12. This story describes a school which thieves might access easily but not be able to escape, an idea taken "from the mystery of an eelpot" by architect Yost Van Houten. This story describes a figure's dancing attracting the attention of all the blacks at a party hosted by Old Baltus Van Tassel. After that party, the protagonist is run out of town by the ghost of a Hessian, leaving Katrina to marry Brom Bones. For 10 points, identify this story about the Headless Horseman and schoolmaster Ichabod Crane, part of the *Sketchbook of Geoffrey Crayon* by Washington Irving.

ANSWER: "The **Legend of Sleepy Hollow**"

020-10-18-03128

13. For the opening of the Concert Spirituel, this composer wrote his “*Paris*” *Symphony*. Another of his symphonies features a five-voice fugato in its last movement and received its name from Johann Peter Salomon. Kocheľ (KUR-chell) numbers categorize this composer’s works, which include his forty-first symphony, which is nicknamed “*Jupiter*.” For 10 points, name this Austrian classical composer of *Eine Kleine Nachtmusik* and *The Magic Flute*.

ANSWER: Wolfgang Amadeus **Mozart**

080-10-18-03129

14. These devices require a pump source and a gain medium, such as a mixture of noble gases or doped crystals. For these devices to work, the number of atoms in an excited state must be greater than the number of atoms in the ground state, a condition known as population inversion. The first of these devices was developed by Theodore Maiman and used a ruby as a gain medium. These devices are used to create a coherent beam of monochromatic light. For 10 points, name these devices that, as their acronym suggests, amplify light by stimulated emission of radiation.

ANSWER: **lasers** [accept **light amplification by stimulated emission of radiation** before mentioned]

003-10-18-03130

15. One player of this instrument included the track “St. Thomas” on an album about this sort of “Colossus.” One bandleader who played this instrument released the avant-garde “The Shape of Jazz to Come.” In addition to Sonny Rollins and Ornette Coleman, another player of this instrument had his work on “My Favorite Things” and “Giant Steps” described as “sheets of sound.” John Coltrane and Charlie Parker both played the alto version of, for 10 points, what curved woodwind instrument made of brass.

ANSWER: **saxophone**

015-10-18-03131

1. Along with Alonzo Church, he gives his name to a hypothesis about computable functions. One construct named for him includes a head which can read and write symbols on a strip of tape. This man, who helped to crack the Enigma machine, also gives his name to an experiment in which a machine tries to convince a human that it is itself a human. For 10 points, name this computer scientist with a namesake "machine" and a namesake "test."

ANSWER: Alan Mathison **Turing**

024-10-18-03132

2. This character meets an old man who derisively calls another man "Bilgewater" instead of "Bridgewater." This character claims to be "George Jackson" while unwittingly inserting himself into a feud between the Sheperdsons and the Grangerfords. This character misses a turn at Cairo (KAY-ro), leading him and his traveling companion Jim down the Mississippi River on a raft. For 10 points, name this character who witnesses a murder with his friend Tom Sawyer, a picaresque title character of a Mark Twain novel.

ANSWER: **Huckleberry Finn** [accept either]

003-10-18-03133

3. This country was known as the Kingdom of Alba for much of the Middle Ages. Its ancient alliance with France was known as the "Auld Alliance." It was known as Caledonia to the Romans, and it was on the losing side at the Battle of Culloden in the last of the Jacobite Rebellions. It won independence at the Battle of Bannockburn under Robert the Bruce after an unsuccessful rebellion led by William Wallace. For 10 points, name this component of the United Kingdom found north of England with a capital at Edinburgh.

ANSWER: **Scotland**

015-10-18-03134

4. This painting's companion piece, *The Olive Trees*, features a wispy, yellow cloud in the sky; both of those pieces were created during the artist's stay an asylum at Saint-Remy. A church steeple can be seen near the center of this work, which also features a glowing yellow crescent moon in the upper right corner and large, flamelike cypress trees in the foreground. For 10 points, name this painting featuring a swirling deep blue sky dotted by the title celestial objects, which was created by Vincent Van Gogh.

ANSWER: *The **Starry Night*** [or *De **sterrennacht***]

082-10-18-03135

5. Exotic examples of these features include the "cooperative" and "reciprocal" found in Mongolian. Of those not used in English, the most commonly seen designates an action performed by and upon oneself; that one, which is used in Greek, is known as the "middle." English distinguishes only two of these grammatical features, one for verbs performed by the subject, and one for verbs which act upon the subject. For 10 points, give this term for the grammatical feature that can be "active" or "passive."

ANSWER: **voice**

019-10-18-03136