



1. Spacecraft specifically investigating these phenomena include Hinode (HE-node-ay), Yohkoh, and RHESSI (RESS-ee). Nitrates and beryllium-10 persist in Greenland from an 1859 example of these phenomena called the Carrington event. They are classified as A, B, C, M, X, or Z depending on the peak flux. These events are similar to coronal mass ejections, and they can trigger geomagnetic storms with the potential to knock out power. Name these events in which a large amount of energy enters the Earth's ionosphere, after being discharged from the Sun.

ANSWER: solar flares [or coronal mass ejections until it is read; or CME until "coronal mass ejections" is read; or geomagnetic storms until it is read; prompt on flares]

020--105-03101

2. This event was ended prematurely when Christina Maslach, who later married its organizer, objected to what was going on. Conducted in the basement of Jordan Hall, this event featured a man emulating a character from the film *Cool Hand Luke*, earning him the inaccurate nickname "John Wayne." Of the twenty-four participants, twelve were named guards and quickly began physically abusing the others. Name this 1971 Philip Zimbardo experiment testing the abuse of power, which took place at a California university.

ANSWER: Stanford prison experiment

052--105-03102

3. Calculations involving this force can be improved by using the Bouguer (boo-JAY) or free-air corrections. An equipotential surface for this force is the geoid (JEE-oyd), the shape the oceans would take if they covered the Earth. A constant used in calculations with this force is equal to 6.67 times 10 to the minus 11. Because the Earth is an oblate spheroid, calculations involving this force deviate from Newton's law. Name this attractive force that causes things to flow or fall towards the Earth's center.

ANSWER: gravity

066--105-03103

4. One of this author's characters is infuriated to lose a literary competition to the incompetent poet Carlos Daneri. In another story, this author imagined a building containing every permutation of twenty-two characters arranged into 3,200 characters per page, with 410 pages per book. Yu Tsun narrates a story by this author that philosophizes about a labyrinth where each path represents the potential outcomes from a decision. Name this Argentinian author who wrote "The Library of Babel" and "The Garden of Forking Paths."

ANSWER: Jorge Luis Borges

190--105-03104

5. In this author's first play, Karl Moor kills his lover Amalia after the accusations of his brother Franz force him to live with the title outlaws. This author depicted the last days of Mary, Queen of Scots in *Mary Stuart*. This author of *The Robbers* penned the line "Be embraced, millions!" in a poem addressing its subject as the "daughter of Elysium." He occasionally collaborated with his contemporary, Johann Wolfgang von Goethe. Name this German Romantic poet and playwright, the author of "Ode to Joy."

ANSWER: Friedrich Schiller

080--105-03105

6. During this day, believers practice vidui (vee-doo-EE) in order to amend their yearly fate in the Book of Life. This day names a 1973 war between an Egypt-led Arab coalition and Israel, also known as the Ramadan War. Services on this holiday begin with the Kol Nidre (cole NEE-dray) prayer, and it marks the end of the High Holy Days. This day, marked by fasting and asking for God's forgiveness, falls nine days after the new year, Rosh Hashanah. Name this Jewish day of atonement.

ANSWER: **Yom Kippur**

005--105-03106

7. During this war, two battles were fought at St. Albans, the latter of which led to Henry VI's release from captivity. Richard Neville became known as Warwick the Kingmaker for his actions during this conflict. In its climactic clash, Richard III exclaimed, "A horse, a horse, my kingdom for a horse!" before dying at Bosworth Field. Identify these fifteenth-century English conflicts between the Houses of Lancaster and York, named for their red and white floral emblems.

ANSWER: Wars of the **Roses**

233--105-03107

8. This statement will be tested in late 2014 by the French project MICROSCOPE, which intends to set even lower limits on the Eotvos (ET-vish) parameter. One version of this statement includes local Lorentz invariance and local positional invariance. A less rigorous version of it holds that the ratio of mass to weight is locally constant, and includes the universality of free fall. Name this principle stating that uniform acceleration and the effects of a gravitational field are indistinguishable.

ANSWER: **equivalence** principle [or weak **equivalence** principle; or strong **equivalence** principle; or Galilean-Newtonian **equivalence** principle; or Einstein **equivalence** principle; or **universality of free fall** until it is read]

003--105-03108

9. Allan Maxam and Walter Gilbert developed a method for performing this process in 1977. Frederick Sanger won his second Nobel Prize for devising the "chain-termination method" for performing this action, which uses ddNTPs (d-d-N-T-Ps). Craig Venter's Celera used the "shotgun" method of performing this action to accomplish it much faster than the Human Genome Project could. Name this procedure that determines the order of nucleotides in the molecule that encodes genetic data.

ANSWER: DNA **sequencing** [or obvious equivalents]

080--105-03109

10. Lorenzetto sculpted the Madonna del Sasso above this man's tomb in the Pantheon in Rome. Two bored-looking cherubim appear at the bottom of his altarpiece in Piacenza (pee-uh-CHEN-zuh), the *Sistine Madonna*. His painting of the *Disputation of the Holy Sacrament* hangs directly across from his most famous fresco, which depicts Plato and Aristotle walking down a staircase, surrounded by other intellectuals. Name this Renaissance painter of *The School of Athens*.

ANSWER: **Raphael** [or **Raffaello** Sanzio de Urbino; or **Santi**]

190--105-03110

11. Prominent performers of this instrument include Alex Klein and Heinz Hollinger. Mozart's D major flute concerto was reworked from a C major concerto for this instrument, which introduces the Swan theme from *Swan Lake*. The cor anglais is a member of this instrument's family. The concert A played by this instrument is used to tune the rest of the orchestra. The Duck in *Peter and the Wolf* is represented by this instrument. Name this double reed woodwind instrument.

ANSWER: **oboe**

020--105-03111

12. Michael Heseltine resigned from this person's government over the future of the Westland Company. Patrick Magee used a time bomb to try to kill this person while she was staying in Brighton. This person became Prime Minister after the Winter of Discontent. As Prime Minister, this woman privatized Rolls-Royce, BP, and British Airways. Name this "Iron Lady," Britain's Conservative Prime Minister from 1979 to 1990.

ANSWER: Margaret **Thatcher**

149--105-03112

13. This present-day country is where the Babi Yar massacre occurred at a ravine near the capital. Millions of residents of this present-day country died in the Holodomor, a genocidal mass famine resulting from collectivized farming. In 2004, Victor Yanukovich won a rigged election in this country, but was deposed by popular outcry in the Orange Revolution. Name this former Soviet republic where the *Battleship Potemkin* docked in Odessa.

ANSWER: **Ukraine**

080--105-03113

14. These compounds can be chlorinated using S-O-Cl_2 or brominated using P-Br_3 . Both PCC and the Jones reagent oxidize these compounds to ketones. Though not amines (AA-meenz), the number of carbon atoms attached to their defining functional group determines whether they are primary, secondary, or tertiary. An example of these compounds is generated along with carbon dioxide when yeast enzymes consume glucose. These compounds have a hydroxyl group bounded to carbon atom. Name these compounds whose examples include methanol, ethanol, and a type of isopropyl.

ANSWER: **alcohols**

189--105-03114

15. The skin of organisms in this phylum is embedded with small calcareous (CAL-suh-riss) ossicles. The mouth of a group of organisms in this phylum was described by Aristotle and is known as his namesake "lantern". A madreporite (MAD-rep-ore-ite) allows fluid into a structure characteristic to this phylum, which then runs through the stone canal. Connected tube feet make up this phylum's water vascular system, enabling members to move across the ocean floor. Identify this phylum of "spiny-skinned" marine animals such as starfish and sea urchins.

ANSWER: **echinodermata** [or **echinoderms**]

233--105-03115

16. One of this author's novels opens with Pete helping his friend in a fight, though his seduction of Jimmie's sister, the title character, leads to her prostitution and death. One of this author's protagonists takes up the flag during a seemingly suicidal charge of the 304th Regiment. This author of *Maggie, A Girl of the Streets* is best known for a novel about the initially-cowardly Civil War soldier Henry Fleming. Identify this American author of *The Red Badge of Courage*.

ANSWER: Stephen **Crane**

233--105-03116

17. If a function satisfies Laplace's (luh-PLOSS-iz) equation, then its mean value on the surface of this figure equals its value at this figure's center. The gravitational force exerted by a shell of this shape on a particle inside the shell is always zero. The constant of proportionality for moment of inertia of a hollow one of these is two-thirds, while a solid one has constant two-fifths. This is the shape of the orbital with azimuthal quantum number zero, known as the s orbital. Identify this shape which has volume four-thirds πr^3 .

ANSWER: **spheres** [or word forms, such as **spherical**]

233--105-03117

18. This author created a character who works unhappily at the New Albion ad agency. This writer created Gordon Comstock, as well as Pilkington and Frederick, who own Foxwood and Pinchfield respectively. In a novel by him, the protagonist receives a book written by Emmanuel Goldstein. Charrington betrays Julia and her lover in this man's novel about Winston Smith. Mr Jones is overthrown by Snowball and Napoleon in another novel by him. Name this author of *Animal Farm* and *1984*.

ANSWER: George **Orwell** [or Eric Arthur **Blair**]

232--105-03118

19. As a wind god, he was shown with a mask with two tubes, and he was sometimes identified as the planet Venus. He had a dog-headed companion named Xolotl (shuh-LOT-ul) who descended into Mictlan to gather the bones of the dead. He was the god of the morning and evening star. One of this god's personalites was known as Ehecatl (eh-heh-COT-ul). This god's rival was Tezcatlipoca (tez-CAT-lee-POE-kuh), and he was exiled on a raft made of snakes. Name this feathered serpent god of Aztec mythology.

ANSWER: **Quetzalcoatl**

030--105-03119

20. This writer parodied Robert Southey in his poem *The Vision of Judgment*. This friend of Thomas Moore died at Missolonghi. The title character feels guilt for Astarte's death in his "metaphysical drama", *Manfred*. This poet exclaims "A heart whose love is innocent!" about a woman whose eyes have "all that's best of dark and bright". This poet of "She Walks in Beauty" also wrote a satire about a womanizing Spanish nobleman. Name this Romantic poet of *Don Juan*.

ANSWER: Lord **Byron** [or George Gordon **Byron**, 6th Baron Byron]

232--105-03120



1. This artist first attracted notice when sixteen of his paintings were shown at the Whitney Studio Club. A secretary rushes to pick up dropped papers in this artist's *Office at Night*, which along with his image featuring a single barber pole, *Early Sunday Morning*, captured the sense of urban isolation. In his most famous painting, a sign for Phillies cigars is displayed on the exterior of a late-night diner serving three people. Name this American painter of *Nighthawks*.

ANSWER: Edward Hopper

004--105-03121

2. Pieces originally for this instrument include "The Mysterious Barricades," by Francois Couperin. A piece originally composed for this instrument meant to help Count Keyserling (KAI-zer-ling) sleep consisted of an aria with 30 variations. A series of 555 sonatas for this instrument was written by Domenico Scarlatti. The Goldberg Variations were composed for this instrument by J.S. Bach. Name this keyboard instrument popular in the Baroque period that produce music by plucking, rather than striking, their strings.

ANSWER: harpsichord

080--105-03122

3. In this country, workers building the Stalinallee Boulevard rioted against the government in 1953. This country attempted to create a more efficient economy through Wolfgang Berger's New Economic System. Kurt Wismach shouted for free elections to be held in this country while Walter Ulbricht gave a speech. This country enacted a plan of "consumer socialism" while led by Erich Honecker. This country employed the Stasi police force and was where the Berlin Wall was built. Name this former country that was reunited with its western counterpart in 1990.

ANSWER: East Germany [or GDR; or German Democratic Republic; or Deutsche Demokratische Republik; do not accept or prompt on "Germany"]

186--105-03123

4. Early rulers of this empire were called "labarna" after its apocryphal founder, and it reached its apex under the reigns of Suppiluliumas I and Mursilis II. Bogazkoy served as the capital of this empire, that fought Ramses II at Kadesh, and its power began to wane with attacks from the Assyrians and the Sea Peoples. Name this fourteenth century BCE empire in Turkey that crafted iron artifacts.

ANSWER: Hittite empire

144--105-03124

5. The work function of a metal can be found by taking Planck's constant times frequency for the absorbed photon and subtracting this quantity for the emitted electron. The equipartition theorem sets it equal to three-halves times Boltzmann's constant times temperature. Its rotational component is proportional to the angular velocity squared. It is conserved in elastic, but not inelastic, collisions. Its change is equal to the work done on the system. Name this quantity equal to half of mass times velocity squared, the energy of motion.

ANSWER: kinetic energy [or KE; or E sub k]

190--105-03125

6. This composer hated the recording industry and coined the term "canned music" to describe recorded pieces. He wrote a piece for the awards ceremony of an essay contest being run by the *Washington Post*. While serving as the leader of "The President's Own," this composer wrote the song "Semper Fidelis," which was made the official song of the Marine Corps. Name this American "March King" who composed "The Stars and Stripes Forever" and is the namesake of a tuba-like brass instrument.

ANSWER: John Philip **Sousa**

023--105-03126

7. This novel's sequel features characters Lew Rabinowitz and Sammy Singer, and is titled *Closing Time*. A name mixup in this novel leads to the sending home of A. Fortiori, instead of the man Major Sanderson thought crazy, leading to the protagonist asking Dobbs if he will kill Colonel Cathcart. M&M Enterprises makes millions for this novel's character Milo Minderbinder. In this novel, Yossarian can't stop flying bombing missions unless he's insane, but his desire to stop bombing proves his sanity. Identify this novel by Joseph Heller.

ANSWER: **Catch-22**

233--105-03127

8. Though he sided with the Greeks during the Trojan War, this god escorts Priam to Achilles's camp in the *Iliad*. Odysseus was descended from this god, as his grandfather was Autolycus (AH-tow-LYE-kuss). Two snakes intertwined around a staff, or a caduceus, is a symbol of this deity. His mother was the eldest of the Pleiades and was named Maia (MY-uh). As a child, this god used the entrails of Apollo's cattle to fashion a lyre. Name this god depicted with winged sandals, a trickster and messenger god.

ANSWER: **Hermes**

190--105-03128

9. This king's general Sagmandia captured Gao, the capital of a neighboring empire. He employed an architect from Granada named as-Sahili and had the Sankore (sahn-CORE-eh) and Djinguereber (JING-uh-ray-bare) mosques built. Writing twelve years after this man traveled through, al-Umari claimed that his visit was still being talked about in Cairo. He allegedly flooded Cairo's gold market during his extremely lavish hajj. Name this fourteenth century ruler who served as the mansa of Mali.

ANSWER: Kankan **Musa** I [or Mansa **Musa**]

023--105-03129

10. This painting was originally dismissed as a "hodgepodge of body parts that any four-year-old could have painted." On the bottom of this painting, a dying man holds in his right hand a flower and a broken sword, below a woman who pokes her head out a window and holds out a lamp. This painting originally shown at the Paris Exposition in 1937 depicts a bird, a bull, and a screaming horse. Name this painting inspired by the German bombing of a town during the Spanish Civil War, painted by Pablo Picasso.

ANSWER: **Guernica**

023--105-03130

1. Answer the following about African conflicts.

[5] Martinus Steyn and Paul Kruger led the Transvaal Republic and Orange Free State during what war, fought from 1899 to 1902 against Afrikaners in South Africa?

ANSWER: Second **Boer** War [or Anglo-**Boer** War; accept **South African** War before "South Africa"]

[10] Which country was the site of Operation Anvil, which targeted the planners of the Mau Mau Rebellion?

ANSWER: Republic of **Kenya**

[15] Which country defeated Italy at the Battle of Adowa while led by Menelik II?

ANSWER: Federal Democratic Republic of **Ethiopia**

[20] What 1987 war between Libya and Chad was named for the pickup trucks used to transport troops?

ANSWER: **Toyota** War

023--105-03101

2. Name these musically important places.

[5] What country's native composers created *The Four Seasons* and *The Pines of Rome*>?

ANSWER: **Italy** [or **Italian** Republic; or Repubblica **Italiana**]

[10] Arnold Schoenberg led a school named after what city, in which they used the twelve-tone technique he developed?

ANSWER: **Vienna** [or **Wien**]

[15] What German city holds an annual festival for the performance of Richard Wagner pieces, and is home to an opera house built specifically for Wagner's operas?

ANSWER: **Bayreuth**

[20] What legendary city in Brittany was the subject of an Edouard Lalo opera about its king?

ANSWER: **Ys**

140--105-03102

3. Name these places where famous hills are found.

[5] The Red Hill was reportedly the site of a massacre of Circassian nationalists and is found near what host city of the 2014 Winter Olympics?

ANSWER: **Sochi**

[10] What American city on the west coast contains the wealthy Nob Hill district and was recently led by Mayor Gavin Newsom?

ANSWER: **San Francisco**

[15] The world's tallest hill, Cavanal Hill, is in what state, who features as Senator the staunch conservative Tom Coburn?

ANSWER: **Oklahoma**

[20] Due to a dispute over invasive species, the namesake feature of what symbol of Auckland, New Zealand has been absent for nearly twenty years?

ANSWER: **One Tree** Hill

052--105-03103

4. Name these Italian areas.

[5] What large island includes the city of Syracuse and is separated from Italy by only two miles?

ANSWER: Sicily [or Sicilia]

[10] Which island in the Mediterranean was the birthplace of Napoleon Buonaparte?

ANSWER: Corsica

[15] What city that was the home of Andrea Doria and Christopher Columbus?

ANSWER: Republic of Genoa

[20] What term for Southern Italy, based on the position of the sun, is an Italian shorthand for the region's persistent poverty and corruption?

ANSWER: "Mezzogiorno"

015--105-03104



Letter D

Letter F

Letter B

Letter D

[10] Which African-American poet of "We Wear the Mask" wrote "I know why the caged bird sings" in his poem "Sympathy?"

ANSWER: Paul Lawrence **Dunbar**

[10] Which European country was forced to give Schleswig-Holstein to Prussia while ruled by Christian IX?

ANSWER: Kingdom of **Denmark**

[10] Which defense attorney represented Nathan Leopold and Richard Loeb in their murder trial and opposed William Jennings Bryan while defending the science teacher John Scopes?

ANSWER: Clarence Seward **Darrow**

[10] Which French neoclassical painter depicted Napoleon's coronation and also painted *The Death of Socrates* and *The Oath of the Horatii*?

ANSWER: Jacques-Louis **David**

[10] Which French Romantic painter depicted a barebreasted woman holding a tricolor above a barricade in *Liberty Leading the People*?

ANSWER: Ferdinand Victor Eugene **Delacroix**

[10] Which Biblical character deciphers the writing on Belshazzar's wall and survives being thrown into a lion's den?

ANSWER: **Daniel**

[10] Jared Leto won the Academy Award for Best Supporting Actor while playing a transvestite with HIV in which 2013 movie?

ANSWER: **Dallas Buyers Club**

[10] Which jazz trumpeter and bandleader composed the albums *Birth of the Cool* and *Kind of Blue*?

ANSWER: Miles Dewey **Davis** III

[10] Which French composer wrote *The Sorcerer's Apprentice*?

ANSWER: Paul Abraham **Dukas**

[10] Name the pharaoh of Egypt who commissioned Imhotep to build the first step pyramid.

ANSWER: **Djoser**

186--105-0310-3

Letter F

[10] What sole opera by Beethoven features the titular character of Leonore disguised as a prison guard?

ANSWER: **Fidelio**

[10] What woodcut by Albrecht Durer includes Famine and Pestilence trampling over hapless victims?

ANSWER: **The Four Horsemen of the Apocalypse**

[10] What political party, whose members included Charles Cotesworth Pinckney and Rufus King, disbanded after the War of 1812?

ANSWER: **Federalist** Party

[10] What is the name of the origin point of an earthquake that lies directly below the epicenter?

ANSWER: **focus**

[10] What sister city of Dallas is the home of the Van Cliburn piano competition and Texas Christian University?

ANSWER: **Fort Worth**

[10] What Catholic saint is known as Poverello and is known for preaching to birds?

ANSWER: Saint **Francis of Assisi**

[10] What heir to the throne to the Austro-Hungarian Empire was assassinated by Gavrilo Princip in 1914?

ANSWER: **Franz Ferdinand** [or **Francis Ferdinand**]

[10] What American jazz singer gained fame for her rendition of "A-Tisket, A-Tasket"?

ANSWER: Ella **Fitzgerald**

[10] What medieval sect was known for traveling throughout Europe and whipping each other during the Black Death?

ANSWER: **flagellants**

[10] What Disney film prominently features music such as *Rite of Spring* and *Night on Bald Mountain*?

ANSWER: **Fantasia**

030--105-0310-3

Letter B

[10] What principle states that increasing a fluid's speed will decrease its pressure?

ANSWER: **Bernoulli** principle

[10] What early promoter of the scientific method wrote about the four Idols in the *Novum Organum*?

ANSWER: Francis **Bacon**

[10] What president helped write the Ostend Manifesto when minister to England?

ANSWER: James **Buchanan**

[10] What actor starred as Sam Spade in *The Maltese Falcon* and as Rick in *Casablanca*?

ANSWER: Humphrey **Bogart**

[10] What country lost its coast after being defeated by Chile in the War of the Pacific?

ANSWER: **Bolivia**

[10] On what saints feast day were thousands of Huguenots killed during the French Wars of Religion?

ANSWER: Saint **Bartholomew** [or Saint-**Barthélemy**]

[10] Who invented the telephone?

ANSWER: Alexander Graham **Bell**

[10] What are viruses that infect bacteria called?

ANSWER: **bacteriophages**

[10] What circus owner displayed the dwarf Tom Thumb and allegedly said "There's a sucker born every minute?"

ANSWER: Phineas Taylor **Barnum**

[10] What is the nickname for English policemen that comes from the name of prime minister Robert Peel?

ANSWER: **Bobby** [or **Bobbies**]

121--105-0310-3



1. This river contains a seventy-five-mile stretch of rough rapids dubbed "The Gates of Hell." The central portion of this river's basin is known as the "cuvette" and contains the second-largest rainforest in the world. This river splits off at a point, creating a lake-like area now known as the Malebo Pool. The Lualaba is this river's largest tributary. For 20 points, the cities of Kinshasa and Brazzaville lie on the banks of what river?

ANSWER: Congo River

230--105-03101

2. Linolenic (LIE-no-leen-ik) acid from this organelle is used to make jasmonic acid, and the Tic and Toc translocons help transport molecules into this organelle. This organelle contains the strongest known biological reducing and oxidizing agents in P700 and P680, respectively. This organelle likely originated as cyanobacteria which formed an endosymbiotic (END-oh-sim-bee-AH-tik) relationship with a eukaryote. For 20 points, name this organelle that contains sacks called thylakoids which are surrounded by the stroma, where the Calvin cycle occurs.

ANSWER: chloroplasts [prompt on plastids]

237--105-03102

3. In one scene in this play, one character declares that "the hungry lion roars, and the wolf howls the moon." In this play, a group of townspeople led by Peter Quince perform the play *Pyramis and Thisbe* for the wedding of Theseus. One character in this play is given the head of a donkey while in the forest surrounding Athens; that character is Nick Bottom. This play includes the lovers Lysander and Helena, as well as Hermia and Demetrius. For 20 points, name this Shakespeare play which features Oberon and Titania, as well as the trickster Puck.

ANSWER: A Midsummer Night's Dream

186--105-03103

4. According to one story, this hero performed a katabasis (KAH-tuh-BAH-sis) by being eaten and regurgitated by a dragon. In another story, this hero attacked Iolcus (ee-OL-kus) with Peleus after his cousins were tricked into boiling his uncle, thinking that it would make him younger. This hero successfully yoked two fire-breathing bulls, and he lost a sandal while helping a disguised Hera cross a river. For 20 points, name this husband of Medea.

ANSWER: Jason

227--105-03104

5. Sir Philip Sidney's *Defence of Poesy* describes the common medieval practice of predicting the future by selecting a line at random from this text. One character in this text falls behind in a footrace by slipping in some blood from an animal sacrifice, but trips another competitor to allow his friend to win. Earlier in this text, Aeolus summons a storm at the behest of Juno, who hates the main character as he is a survivor from Troy. The main character wars against Turnus after fleeing Carthage following the suicide of Dido. For 20 points, name this Latin epic poem written by Virgil.

ANSWER: the Aeneid

020--105-03105

6. Music from this country came to international attention thanks to the score for its film *Black Orpheus*. A recording of "Desafinado" by Charlie Byrd and Stan Getz helped popularize its music in the United States. Joao Gilberto and Antonio Carlos Jobim helped develop a style of music in this country whose name roughly means "new wave." For 20 points, name this home country of *bossa nova* music, the setting of the popular song "The Girl from Ipanema."

ANSWER: **Brazil**

080--105-03106

7. This structure is located within the sella turcica. Cysts can be found in the pars intermedia, which separates this structure's anterior and posterior sections. Cancer of this structure often leads to excess levels of ACTH and Cushing's disease. It is connected to the hypothalamus through the infundibulum (IN-fun-DIB-yoo-lum). It secretes hormones like oxytocin (OCK-see-TOH-sin) and vasopressin, or ADH, to regulate different systems in the body. For 20 points, name this gland in the brain, an important part of the endocrine system.

ANSWER: **pituitary** gland

140--105-03107

8. A song by Arthur Herzog and this singer notes that, "Them that's got shall get, Them that's not shall lose." Frank O'Hara wrote a poem about the day this singer died. This singer received her nickname from her frequent collaborator Lester Young. She sang about "Blood on the leaves and blood at the root" in a song by Abel Meropool that she popularized. For 20 points, name this jazz singer who was nicknamed "Lady Day," wrote *Lady Sings the Blues*, and sang the anti-lynching piece "Strange Fruit."

ANSWER: Billie **Holiday** [or Elinore **Harris**; prompt on **Lady** Day until it is read]

030--105-03108

9. Gilbert Ryle described a theory of this thinker as the "ghost-in-the-machine" concept of mind. He offered a proof for God in a treatise that imagines a situation where all sensory and even mental experiences were unreliable. In *Discourse on Method*, he showed that his own existence was the only fact it was impossible to doubt. For 20 points, name this French philosopher.

ANSWER: René **Descartes**

121--105-03109

10. This man referred to South African bodyguards as the "Gestapo" when making a trip on behalf of Prime Minister Jan Smuts (YUN SMOOTS). Known as the "Industrial Prince" for his frequent tours of coal mines and factories, he was the father of a woman called "Lilibet." This king took the throne after his older brother, Edward VIII, abdicated to marry Wallis Simpson. He underwent speech therapy with Dr. Lionel Logue to overcome his stammer. For 20 points, name this King of Britain during World War II, the father of Elizabeth II.

ANSWER: **George VI** [prompt on **George**]

052--105-03110

11. This object is used in a 1995 film by Chase Meridian, who is chastised for confusing it with a "beeper." In an earlier film, it is displayed at a press conference in response to Alexander Knox's question "how do we call him?" At the end of a later film, this object is shown being destroyed with an axe under the words "condemn me, set the dogs on me." In a 2005 film, this object is first conceived when Carmine Falcone (fal-COH-nee) is tied to a searchlight prior to the arrival of police. For 20 points, name this device which projects an image onto the clouds in *The Dark Knight*.

ANSWER: the **Bat-signal**

019--105-03111

12. A series of bombings in this country occurred during the "Hot Summer" and were triggered by the influx of "retornados." The song "And After the Farewell" was the signal to begin a revolution in this country, which was led by the MFA and overthrew Marcelo Caetano. This country was led by Antonio Salazar's Estado Novo, and during its liberalization, its colonies in Mozambique and Goa achieved independence. For 20 points, name this country whose autonomous regions include Madeira and the Azores.

ANSWER: **Portugal**

048--105-03112

13. This man ordered the hasty construction of the Sviyazhsk (svee-ESK) fort during his campaign against Kazan. In a movie about this man, a feast changes from black and white to color when some of his bodyguards begin to dance. This subject of a 1944 Sergei Eisenstein film celebrated his conquest of Kazan by having St. Basil's Cathedral built. For 20 points, name this tsar who founded the oprichniki (op-rich-NEE-kee) after his wife Anastasia died.

ANSWER: **Ivan the Terrible** [or **Ivan IV**; or **Ivan the Awesome**; prompt on **Ivan**]

186--105-03113

14. A painting depicting this deity sleeping is sometimes named after its city of residence, Dresden, and was finished by Titian after the death of its original artist, Giorgione (jor-JOH-nay). In another painting, this deity stands in an orange grove to the right of the three Graces, who are dancing. A woman reaches out with a red cloak to clothe this goddess while Zephyr and Aura look on in a famous depiction of her. For 20 points, name this goddess depicted by Botticelli.

ANSWER: **Venus** [or **Aphrodite**]

140--105-03114

15. During the race that determined the twelve Chinese zodiacs, this animal was saved by a log dropped by the dragon and arrived in fourth place. According to Japanese and Korean folklore, this animal can be found on the moon pounding rice cakes with its pestle. The German "wolpertinger" (VOLE-per-ting-gur) is the ancestor of the American belief in the jackalope, which is often described as one of these animals with deer antlers. For 20 points, name these animals.

ANSWER: **rabbit** [or **hare**]

227--105-03115

16. Writers using this language formed such literary movements as the Generation of '98 and the Generation of '27. The author of *Hopscotch* used this language, many of whose 20th-century writers came to prominence in the literary "Boom." This language was used by the author of *Love in the Time of Cholera* and *One Hundred Years of Solitude*. For 20 points, name this language used by Gabriel Garcia Marquez.

ANSWER: **Spanish**

014--105-03116

17. The first and last coefficients of an integer polynomial can be used to guess solutions to the polynomial with this property. Dividing one polynomial by another gives a function described by this adjective. The Greeks proved that the square root of two did not have this property. It is possessed by any number with a terminating decimal expansion, and any integer, but not any real number. For 20 points, identify this type of number which can be expressed as a fraction of two integers.

ANSWER: **rational** [or **rational** number; or **rational** function]

132--105-03117

18. In this novel, Marcela defends her decision to refuse to marry after it results in the death-by-heartbreak of the student Chrysostom. This novel's protagonist starts a brawl at an inn by insisting that a basin is the mythical Helmet of Mambrino. The protagonist of this novel sallies out on the nag Rocinante with his down-to-earth companion Sancho Panza, who pleads with him not to attack a group of windmills. For 20 points, name this comic novel by Miguel de Cervantes about a Spanish nobleman who thinks he is a chivalric hero.

ANSWER: *Don Quixote de La Mancha*

080--105-03118

19. A 1936 experiment linked this phenomenon to perception of the autokinetic effect. Floyd Allport recorded how late workers were to their jobs to formulate his J-curve theory of this phenomenon. Groups of "confederates" tasked with matching line lengths on cards were used in an experiment on this behavior by Solomon Asch. It is related to compliance and obedience, and results from groupthink. For 20 points, identify this behavior in which individuals try to fit into a group norm.

ANSWER: conformity

232--105-03119

20. This man depicted himself surrounded by owls and bats in *The Sleep of Reason Produces Monsters*. This artist depicted a nude scene of a reclining woman, which can be found in the Prado next to his "clothed" version of the same woman. This man also painted the scene of a demonic creature consuming his offspring as a part of his *Black Paintings* series. For 20 points, name this Spanish artist of *Saturn Devouring His Children* who painted the massacre of Spanish citizens by Napoleon's army in *The Third of May, 1808*.

ANSWER: Francisco Goya

227--105-03120



1. This river contains a seventy-five-mile stretch of rough rapids dubbed "The Gates of Hell." The central portion of this river's basin is known as the "cuvette" and contains the second-largest rainforest in the world. This river splits off at a point, creating a lake-like area now known as the Malebo Pool. The Lualaba is this river's largest tributary. For 20 points, the cities of Kinshasa and Brazzaville lie on the banks of what river?

ANSWER: Congo River

230--105-03131

2. Linolenic (LIE-no-leen-ik) acid from this organelle is used to make jasmonic acid, and the Tic and Toc translocons help transport molecules into this organelle. This organelle contains the strongest known biological reducing and oxidizing agents in P700 and P680, respectively. This organelle likely originated as cyanobacteria which formed an endosymbiotic (END-oh-sim-bee-AH-tik) relationship with a eukaryote. For 20 points, name this organelle that contains sacks called thylakoids which are surrounded by the stroma, where the Calvin cycle occurs.

ANSWER: chloroplasts [prompt on plastids]

237--105-03132

3. In one scene in this play, one character declares that "the hungry lion roars, and the wolf howls the moon." In this play, a group of townspeople led by Peter Quince perform the play *Pyramis and Thisbe* for the wedding of Theseus. One character in this play is given the head of a donkey while in the forest surrounding Athens; that character is Nick Bottom. This play includes the lovers Lysander and Helena, as well as Hermia and Demetrius. For 20 points, name this Shakespeare play which features Oberon and Titania, as well as the trickster Puck.

ANSWER: A Midsummer Night's Dream

186--105-03133