



1. This character sarcastically suggests to his nephew that he go into Parliament before chiding him for marrying for love. Later, he recalls attending a dinner while apprenticed to Mr. Fezziwig (FEZ-ee-wig). He witnesses a woman who steals his bed-curtains from his deathbed and a dinner at the house of his employee, Bob Cratchit, before agreeing to change his ways. For 10 points, name this miser who shouts "Bah! Humbug!" before being visited by three spirits in *A Christmas Carol*.

ANSWER: Ebenezer **Scrooge** [or **Ebenezer** Scrooge]

003-12-36-10101

2. In females, this process results in the formation of three polar bodies. If nondisjunction occurs during this process, Klinefelter or Down syndrome could result. In plants, this process marks the beginning of the gametophyte generation. Homologous chromosomes form chiasmata (kee-AS-muh-tuh) by crossing over in the first step of this process. For 10 points, name this process that produces haploid gametes, such as sperm and egg cells.

ANSWER: **meiosis** [do not accept "mitosis", accept "prophase" or "prophase I" before polar bodies]

133-12-36-10102

3. One poem by this man concludes "Forgive me they were delicious so sweet and so cold" after confessing "I have eaten the plums that were in the icebox." This poet who described the title New Jersey town in his five-book epic *Paterson* also wrote about an object "glazed with rain water beside the white chickens" which "so much depends upon." For 10 points, name this American Imagist poet of "This Is Just to Say" and "The Red Wheelbarrow."

ANSWER: William Carlos **Williams**

014-12-36-10103

4. The "animalcules" observed on fleas by Leeuwenhoek (LAY-ven-"hook") are an example of the "epi" form of these organisms. The "corpse flower" *Rafflesia* is one of these, as is *Trypanosoma brucei* (trip-ANN-oh-soh-mah BROO-see), the cause of sleeping sickness. Including such pathogens as *Plasmodium* and tapeworms, for 10 points, identify this type of organism which, as part of a namesake relationship, benefits at the cost of its host.

ANSWER: **parasite** [or word forms; prompt on **symbiont** or word forms]

133-12-36-10104

5. One character in this novel learns to read from a copy of *Paradise Lost* he finds in the woods, and he befriends Monsieur de Lacey. This novel's title character dies at the North Pole on a ship belonging to the explorer Robert Walton. After a locket is found in her pocket, the servant Justine Moritz is accused of murdering the title character's brother William. For 10 points, name this Gothic novel in which a monster is created by the inventor Victor, a work of Mary Shelley.

ANSWER: **Frankenstein**

124-12-36-10105

6. One character in this opera sings an aria comparing his dark-haired lover to the blonde subject of a painting; that aria is "Recondita armonia". In this opera's third act, that character sings "E lucevan le stelle" after being informed that he has an hour to live. Its title character sings "Vissi d'arte" while Baron Scarpia holds Mario Cavaradossi custody. At its end, the title singer jumps from a castle to her death. For 10 points, name this opera by Giacomo Puccini.

ANSWER: **Tosca**

020-12-36-10106

7. This disorder's hebephrenic variant can be characterized by people having delusions of grandeur. This disease, which was named by Eugen Bleuler, is the largest cause for admissions to mental hospitals in America. Some sufferers of it become completely immobile when they have its catatonic variety. For 10 points, name this psychotic disorder that can make sufferers paranoid, and which can produce hallucinations where people hear and respond to voices in their head.

ANSWER: **schizophrenia**

027-12-36-10107

8. Regions in this desert include Graham Land and Victoria Land, which is home to Cape Adare. Mount Ellsworth is the highest point in the Queen Maud Mountains, and the highest point in this desert is Vinson Massif. Seas surrounding this desert include the Ross Sea and the Weddell Sea. The largest subglacial lake in this desert is Lake Vostok. This continent is home to the southernmost active volcano, Mount Erebus. For 10 points, name this cold desert continent located around the South Pole.

ANSWER: **Antarctica**

124-12-36-10108

9. In one of this author's novels, Frank shoots the protagonist's brother Emil for having an affair with his wife Marie. Doctor Archie helps take care of singer Thea Kronborg in this author's *The Song of the Lark*. She wrote about Alexandra Bergson, who marries Carl Linstrum in rural Nebraska, in another novel. Another work examines the Shimerda family of Bohemian immigrants and is narrated by Jim Burden. For 10 points, name this American author of *O Pioneers!* and *My Antonia*.

ANSWER: Willa Seibert **Cather**

127-12-36-10109

10. In photosynthesis, this substance is oxidized by 4 charge separation reactions making oxygen in photosystem II, and its ability to form chlathrates with other compounds leads to high amounts of trapped methane on the ocean floor. This compound's "heavy" variety is often used in nuclear reactors as a moderator, and it frequently serves as an amphoteric solvent. For 10 points, name this common compound, also known as dihydrogen monoxide, with formula H<sub>2</sub>O.

ANSWER: **water** [or **H<sub>2</sub>O** or **dihydrogen monoxide** before mentioned]

119-12-36-10110

11. Along with one of its tributaries, this body of water was the subject of the Compact of 1785. Nearly one hundred years later, the Conowingo Dam was built on this body of water, near the mouth of the Susquehanna River, its largest tributary. It is the largest estuary in the United States and collects waters from West Virginia, New York, and several states in between. For 10 points, name the bay on which Baltimore and other cities in Maryland and Virginia sit.

ANSWER: **Chesapeake** Bay

147-12-36-10111

12. After this event, a trial condemned Albert Parsons, August Spies (SPEES), and two other members of the International Working People's Association to hang. Three other men involved in this event were pardoned by John Peter Altgeld, the governor of Illinois. This event occurred when someone threw a pipe bomb at policemen, prompting police to fire on a crowd demonstrating for an eight-hour workday. For 10 points, name this 1886 labor riot that occurred in a square in Chicago.

ANSWER: **Haymarket** Square Riot [or **Haymarket** Affair; or **Haymarket** Massacre]

144-12-36-10112

13. One quantity important to the formation of these objects is equal to two G M divided by c squared. Frame dragging occurs in the ergosphere surrounding these entities. Schwarzschild was the first to present a mathematical solution to the problem of these entities, which are bounded by an event horizon. For 10 points, name this entity predicted by general relativity, in which no light can escape.

ANSWER: **Black Hole**

135-12-36-10113

14. One type of this geologic feature turns over in the spring and fall. In meromictic types of this feature such as Nyos, carbon dioxide can erupt. The top layer of a stratified one is the epilimnion, and the oxbow type of this feature is formed when a meander is cut off. Many of the ones found in the Great Rift Valley contain cichlids ("SICK"-lids), and they can form in volcanic craters. For 10 points, name these bodies of water surrounded by land, examples of which include Tanganyika (TAN-ga-NEEK-ah) and Superior.

ANSWER: **lakes**

124-12-36-10114

15. Edouard Roche theorized that objects travelling inside the Roche limit could have formed this structure, which contains the moons Prometheus and Pan. Its outermost section contains the Encke [EN-kay] gap. James Maxwell showed that it was not a solid continuous structure but rather composed of many small individual objects. This structure contains a 3,000 mile wide gap called the Cassini Division. For 10 points, name this system of icy-like objects that are found around the sixth planet from the sun.

ANSWER: **rings** of **Saturn** [or obvious equivalents; prompt on **rings**; prompt on **Saturn**]

064-12-36-10115



1A. What company that launched a social network featuring "circles" is facing potential wiretapping charges over its vehicles sniffing passwords from wireless networks?

ANSWER: **Google**, Inc.

1B. Her ally Sidney Herbert helped her reform the army hospital at Scutari, bringing her to prominence. Identify this pioneering British nurse, known as the "Lady with the Lamp."

ANSWER: Florence **Nightingale**

2A. The Bayer, Deville, and Hall-Heroult processes deal with the production of which element often extracted from the ore bauxite?

ANSWER: **aluminum**

2B. This adjective describes a sequence whose terms have a common ratio.

ANSWER: **geometric**

3A. This is a 10-second calculation question. Evaluate  $3a^2 - 2a + 6$  if  $a = 3$ .

ANSWER: **27**

3B. This is a 10-second calculation question. Find the range of the following set: 5, 9, 2, -4, 8, 0.

ANSWER: **13**

4A. Name the Japanese novel by Lady Murasaki which chronicles the life of a prince whose mother is the concubine Kiritsubo.

ANSWER: *The **Tale of Genji*** [or ***Genji Monogatari***]

4B. Which Russian composer wrote the orchestral interlude "The Flight of the Bumblebee" for his opera *The Tale of Tsar Saltan*?

ANSWER: Nikolai Andreyevich **Rimsky-Korsakov** [or Nikolaj Andreevic **Rimskij-Korsakov**]

5A. This is a 20-second calculation question. Consider the function  $y$  equals  $2x$  minus 6. Find the inverse of that function.

ANSWER:  $f$  inverse of  $y$  equals  **$y$  over two, plus three** [or  $f$  inverse of  $y$  equals **quantity  $y$  plus six, divided by two**]

5B. This is a 20-second calculation question. A weighted coin which has a 60% chance of landing heads is flipped three times. Find the probability that it produces three tails.

ANSWER: **6.4%** [or **8/125**; or **0.064**]

6A. Identify the American state and former colony founded by controversial preacher Roger Williams, which was also home to the religious dissident Anne Hutchinson after she was banished from Massachusetts.

ANSWER: The State of **Rhode Island** and Providence Plantations

6B. What biblical king of Israel is traditionally believed to have built the first Jerusalem Temple and to have written the book Ecclesiastes (ec-CLEES-ee-AS-tees)?

ANSWER: **Solomon** [or **Shlomoh**]

7A. What band led by Dave Grohl released "Rope" as the first single off their 2011 album *Wasting Light*?

ANSWER: **Foo Fighters**

7B. What type is used in C++ (SEE-PLUS-PLUS), C# (SEE-SHARP), and Java to indicate that a method returns no value?

ANSWER: **void**

8A. Emily Deschanel plays the title character of which FOX drama, in which she works to solve murders using human forensic evidence with her partner Booth?

ANSWER: **Bones**

8B. What Titan ate the children he fathered with Rhea and was overthrown by his son, Zeus?

ANSWER: **Cronus** [or **Kronos**]

9A. This is a 30-second calculation question. A trapezoid has parallel sides  $WX = 10$  and  $YZ = 16$ , side  $XY$  has length 10, and right angles at  $W$  and  $Z$ . Find the area of the trapezoid.

ANSWER: **104**

9B. This is a 30-second calculation question. In triangle  $ABC$ , side  $AB$  is 4 inches, the sine of angle  $C$  is .8, and side  $BC$  is 2 inches. Find the sine of angle  $A$ .

ANSWER: **0.4**

10A. Identify the British war poet wrote "Anthem for Doomed Youth" and rejected a quotation from Horace in "Dulce et Decorum Est."

ANSWER: Wilfred **Owen**

10B. Name the Middle Eastern country that saw 2011 crackdowns on "Arab Spring"-related protests against President Bashar al-Assad.

ANSWER: **Syrian** Arab Republic [or Al Jumhuriyah al Arabiyah as **Suriyah**]



1. One poem by this man states “There is a Power whose care teaches thy way along that pathless coast” in addressing a bird that “Will lead my steps aright.” Another poem tells its addressee to “approach thy grave, like one who wraps the drapery of his couch about him.” That poem addressing “him who in the love of Nature holds communion with her visible forms” has a title sometimes translated as “Meditation on Death.” For 10 points, name this American poet of “To a Waterfowl” and “Thanatopsis.”

ANSWER: William Cullen **Bryant**

014-12-36-10117

2. This leader of the Admirable Campaign denounced Francisco de Miranda's treachery in the Cartagena (car-tuh-GAY-nuh) Manifesto. After this man returned from Haiti, he invaded Angostura and began his campaign against New Granada that culminated at the Battle of Boyaca. After his victory at the Battle of Carabobo, he was appointed the first president of Gran Colombia. For 10 points, name this man who, along with Jose de San Martin, liberated much of South America from Spain.

ANSWER: Simón **Bolívar** [or Simón Jose Antonio de la Santísima Trinidad **Bolívar** y Palacios Ponte y Blanco]

005-12-36-10118

3. In the 1990s, players from this team won five straight Rookie of the Year awards; honorees included Todd Hollandsworth, Raul Mondesi, and Eric Karros. In 2008 and 2009, this team lost two straight National League Championship Series to the Philadelphia Phillies. As part of owner Frank McCourt's divorce-related legal troubles, this team filed for bankruptcy in June 2011. For 10 points, name this troubled franchise that, in 1947, signed Jackie Robinson.

ANSWER: Los Angeles **Dodgers** [prompt on **Los Angeles**; prompt on **L.A.**; prompt on **Brooklyn**]

002-12-36-10119

4. This artist painted a kitten atop a chair in a portrait of his mistress called *Dora Maar au Chat*. He depicted Guillaume Apollinaire as Pierrot in both versions of his *Three Musicians*. Two women are shown with African mask-like faces in his painting of five Barcelona prostitutes. He painted another work in response to the bombing of a Basque town. For 10 points, name this artist of *Les Demoiselles (DEH-mwah-zelles) d'Avignon (AH-vih-NYON)* and *Guernica*, a Spanish Cubist.

ANSWER: Pablo Ruiz **Picasso** [or Pablo Diego José Francisco de Paula Juan Nepomuceno María de los Remedios Cipriano de la Santísima Trinidad Ruiz y **Picasso**]

029-12-36-10120

5. A “Dun” one of these creatures in Irish myth names part of the Ulster cycle, which includes Queen Medb’s (MAVE) raid for one of them at Cooley. Cadmus followed one of these creatures’ trails to look for his sister. An old Norse one named Audhumbla (od-HOOM-la) fed the first frost giant Ymir (EE-meer), and the Egyptian Hathor has the head of one. Odysseus’s men were killed after they ate the sacred ones of Helios, and Hera turned Io into one of these creatures. For 10 points, name these farm animals which are sacred to Hindus.

ANSWER: **cows** [accept **cattle**; do not accept “bulls”]

104-12-36-10121

6. One work of this type features three bees resting below an open bivalve shell. Another work of this type contains an Egyptian obelisk topped by a dove carrying an olive branch and surrounded by personifications of the Ganges, the Danube, the Rio de la Plata, and the Nile. A Baroque example of them sits in front of the Palazzo Poli in its namesake Trevi district and is a popular target for coin-throwers. For 10 points, name this type of artwork which often features jets or spouts of water.

ANSWER: **fountains** [or **fontana**; or **fontane**; accept obvious equivalents of Roman **fountains**; accept obvious equivalents of **fountains** designed by Gian Lorenzo **Bernini** until "Palazzo Poli" is read]

029-12-36-10122

7. In one work by this author, Tony falls in love with the medical student Morten at a Baltic Sea resort. The decline of the title family is portrayed in that novel, *Buddenbrooks*. In a novella by this author, the Polish boy Tadzio becomes the idealized object of desire for the aging writer Gustav von Aschenbach. He also created Hans Castorp, who spends seven years in a Swiss sanatorium. For 10 points, name this German author of *Death in Venice* and *The Magic Mountain*.

ANSWER: Thomas **Mann**

127-12-36-10123

8. The westernmost point of this island is on the Tiburon Peninsula, and its Yuna River empties into the Samana Bay from Vega Real (ray-ALL). In 1937, this island was home to a linguistic purge known as the Parsley Massacre. This island was once home to the Taino group of Arawak Indians, who were nearly exterminated by Christopher Columbus. Santo Domingo and Port au Prince are found on, for 10 points, what Caribbean island, that is split between Haiti and the Dominican Republic?

ANSWER: **Hispaniola**

124-12-36-10124

9. This ruler led his country into the unproductive Livonian War. This ruler was the first to summon a parliament called the zemski sobor. The defection of this man's general Andrey Kurbsky prompted this man to establish a secret police force known as the Oprichnina, who wore all black and terrorized citizens. The end of this man's reign ushered in the Time of Troubles. For 10 points, name this first person to take the title tsar in Russia who murdered his only heir.

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

030-12-36-10125

10. This ruler made an alliance by marrying the daughter of Desiderius, a Lombard king. This man tried to improve his empire by bringing in such intellectuals as Alcuin of York and Einhard, his biographer. This man's empire was passed on to Louis the Pious. The son of Pepin the Short, this ruler was crowned Emperor of the Romans by Pope Leo III on Christmas Day in 800. For 10 points, name this Carolingian king of the Franks who was the grandson of Charles Martel.

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

052-12-36-10126

11. A heterogeneous example of these substances is platinum weakening hydrogen bonds in hydrogenation. Iron is used as one of these in synthesizing ammonia in the Haber process. A biological example of these substances works by binding substrates to its active site. Those substances are enzymes. For 10 points, name these substances which lower the activation energy of a reaction, speeding it up without themselves being consumed.

ANSWER: **catalyst**

121-12-36-10127

12. The passive periphrastic construction in this language uses a gerundive and a form of "sum" (SOOM) to convey that an action must be done. Most second declension nouns in this language are masculine and have -orum as their genitive plural suffix. The Romance languages, including French and Spanish, derive from this language. For 10 points, identify this language of Livy, Cicero, and Julius Caesar that was spoken in ancient Rome.

ANSWER: **Latin**

123-12-36-10128

13. This man's plays include one in which a marriage between Angelique and Thomas Diafoirus so as to have a doctor in the family is planned by Argan. This man died on stage while performing that play, *The Imaginary Invalid*. In another play, Elmire helps expose the title hypocrite after her husband signs over his estate to him, and the king saves Orgon from arrest. For 10 points, name this French playwright of *Tartuffe*.

ANSWER: **Molière** [or Jean-Baptiste **Poquelin**]

121-12-36-10129

14. This vitamin's carboxylic acid form regulates Hox gene expression. Deficiencies of this vitamin may lead to xerophthalmia (zer-off-THALL-mee-uh), in which the eye does not produce tears. Its aldehyde form is a component of 11-cis rhodopsin (roh-DOP-sin), which can isomerize to an all-trans form when light hits it. For 10 points, identify this vitamin also known as retinol that is important for vision, found in abundance in broccoli and carrots.

ANSWER: vitamin **A** [or **retinol** before it is read]

133-12-36-10130

15. This modern day country was where the multi-tube seed drill was invented, and astronomers from a civilization in this modern day country observed the supernova in the Crab Nebula. This country was where a counting device was invented that consisted of sliding beads on wooden poles, and another civilization in this country mixed together sulfur, charcoal and saltpeter to make what they called "fire drug." For 10 points, name this modern day country that was the site of the development of the abacus, the compass, and gunpowder.

ANSWER: **China**

066-12-36-10131



1. This poet dedicated one book to each month of the calendar in his unfinished six-book poem *Fasti*, and he wrote his *Epistulae ex Ponto*, or *Letters from the Black Sea*, while in exile. This poet employed elegiac couplets in his collections *Amores* and *Ars Amatoria*, and another of his poems in fifteen books includes the stories of Baucis and Philemon and of Apollo and Daphne. For 10 points, name this Roman poet who wrote *Metamorphoses*.

ANSWER: **Ovid** [or Publius **Ovidius** Naso]

014-12-36-10132

2. A merchant named Samuel Brannan is believed to have made the most money during this event. James K. Polk officially declared this event, the source of a population trigger that was among the main causes of the Compromise of 1850. It caused San Francisco to grow about twenty-five fold in one year and started following a discovery by James Marshall at Sutter's Mill. For 10 points, name this event in the late 1840's triggered by the discovery of a precious metal in a western US state.

ANSWER: **California gold rush** [accept equivalent answers that suggest **California** and **gold**; prompt on **gold rush** of 1849 or equivalents]

064-12-36-10133

3. A quantity known as the rapidity can be used to simplify computations in this theory, whose allowed transformations compose the Poincare (PWAN-kuh-RAY) group. This theory, which is most easily demonstrated in Minkowski (min-COW-skee) space, says that light travels at the same speed in all inertial reference frames. It provides an explanation for time dilation and length contraction. For 10 points, identify this theory of physics contrasted with its general form by Albert Einstein.

ANSWER: **Special Relativity** [do not accept "General Relativity"]

135-12-36-10134

4. Upon reaching Jonathan Doolittle's Union Hotel, this man is asked whether he is a "Federal or Democrat." He finds out from his daughter, Judith, that his wife died of a broken blood vessel in a fit provoked by a peddler. Peter Vanderdonk confirms his story about Hendrick Hudson and his crew playing ninepins in the Catskill Mountains. For 10 points, these events occur to what Washington Irving character after he wakes up from a twenty-year sleep?

ANSWER: Rip **van Winkle** [or **Old Rip** van Winkle; prompt on **Rip**]

003-12-36-10135

5. This nation's independence was declared at a convention in Washington-on-the-Brazos. Stephen F. Austin's imprisonment in Mexico City contributed to this nation's independence movement. This nation established the Rangers police force, and its forces won the Battle of San Jacinto. That victory came over the Mexican general Santa Anna and was won by Sam Houston. For 10 points, name this republic that won independence in 1836 and was later annexed by the United States.

ANSWER: **Texas** Republic

027-12-36-10136