



1. Members of this movement were drowned out by shouts of “Obama” after they mike-checked him at a New Hampshire speech. Roseanne Barr delivered a speech to members of this movement on its first day. Anthony Bologna was maced while participating in this movement that was started by Adbusters. Members of this movement were kicked out of Zuccoti Park for sanitary purposes. For 10 points name this protest movement that is centered in New York City and claims the phrase “We are the 99 percent.”

ANSWER: Occupy Wall Street [or OWS]

149-13-93-05101

2. Bourdon gauges are used to measure this quantity. This quantity can be measured in units of length by dividing it by fluid density and by gravitational acceleration. Add 760 torr to the “relative” value of this quantity in order to get its “absolute” form, which takes into account the atmospheric component. Other units to measure this quantity include millimeters of mercury, bars, and atmospheres. For 10 points, name this quantity equal to force over area.

ANSWER: pressure

190-13-93-05102

3. The investment firm 3G Capital, run by two brothers from this country, masterminded an insider trading deal to expedite Berkshire Hathway's buyout of Heinz Co. In this country, the Pacifying Police Units oppose rioting. Recent social unrest in this country has been sparked by the decision to eradicate several of this country's favela shantytowns to build stadiums. For 10 points, name this South American country that will host the 2014 FIFA World Cup.

ANSWER: Federative Republic of Brazil [or Republica Federativa do Brasil]

020-13-93-05103

4. These cells have a glycoprotein outer coating called the zona pellucida. In mammals, the development of these cells is aided by granulosa cells. In some plants, these cells are formed from megaspores. When they are formed, three polar bodies are formed and degenerate. Their release leads to the formation of the corpus luteum from the follicle. These haploid cells always contain an X chromosome and form a zygote upon merging with another type of cell. For 10 points, name these gametes that are fertilized by sperm cells.

ANSWER: egg cells [or ovum; or ova; or oocytes; or ovocytes; or ovarian follicles; prompt on gametocyte; prompt on gametes]

232-13-93-05104

5. One example of this type of poem describes a frog jumping into an old pond; that work was written by the best known author of these poems, whose collections include *Seashell Game* and *Narrow Road to the Deep North*. They usually include a word that somehow defines the season in which they take place. Matsuo Basho wrote poems of this type that evolved from a part of the *renga*. Popular in Japan in the 18th and 19th Centuries, for 10 points, name this type of short poem whose seventeen syllables are arranged into a 5-7-5 pattern.

ANSWER: haiku

040-13-93-05105

6. This actor played “Pretty Boy” Floyd, who is killed by Melvin Purvis in the opening of *Public Enemies*. He wore a mask and a leash as the pet of a cannibalistic Danny McBride in *This Is the End*. In one role, this actor and Jonah Hill bust a high school drug ring as part of an undercover unit. In another movie, he and Matthew McConaughey work at the Equisite Strip Club. For 10 points, name this star of *21 Jump Street* and *Magic Mike*.

ANSWER: Channing Tatum

015-13-93-05106

7. This curve is obtained when using the parametrization  $x$  equals velocity times  $t$  times cosine of  $\theta$  and  $y$  equals velocity times  $t$  times sine of  $\theta$  minus half gravity times  $t$  squared. That parametrization is for the trajectory of a projectile. This curve can be described as the locus of all points equidistant from a focus and the directrix. The eccentricity of these conic sections is one. For 10 points, identify this curve whose canonical example is  $y$  equals  $x$  squared.

ANSWER: parabola [prompt on quadratic curve]

066-13-93-05107

8. In Act II of this play, one character has become blind and another has become mute. The set of this play consists of a tree and takes place on a country road. The inaction and anxiety of this play has led some to consider it as a representation of the Cold War. For 10 points, name this play that includes Pozzo and Lucky, a Samuel Beckett work in which Vladimir and Estragon do not meet the title character.

ANSWER: Waiting for Godot [or En Attendant Godot]

030-13-93-05108

9. Richard Lenski began an ongoing evolution experiment on this organism in 1988. This organism can produce vitamin K2, but not K1. This organism commonly supplies the vector for molecular cloning, when a strand of interest is ligated into one of its plasmids. Thus, this organism is responsible for most production of synthetic insulin. For 10 points, name this Gram-negative prokaryote living in human intestines, a model bacterium which can also cause food poisoning.

ANSWER: Escherichia coli

190-13-93-05109

10. The protagonist of this book is asked for cheese when he first meets another character. That protagonist is forced to kill the villainous Israel Hands. This novel begins at a tavern where blind Pew gives Billy Bones the “black spot.” A supporting character in this book is the marooned Ben Gunn. The protagonist is youthful Jim Hawkins, who joins a crew to discover the treasure of Captain Flint. For 10 points, name this Robert Louis Stevenson novel about pirates like Long John Silver.

ANSWER: Treasure Island

052-13-93-05110

11. This character was born on the same day as Susan, the daughter of her attendant, who calls this woman a “lamb” and “ladybird.” She is courted by Count Paris, who ends up dying outside her crypt. This character is given a drug by Friar Laurence to go into a deathlike state, and her cousin Tybalt kills Mercutio. She stabs herself with a dagger after realizing her true love has drank poison. For 10 points, name this female member of the Capulet family, the lover of Romeo in a William Shakespeare play.

ANSWER: Juliet [prompt on Capulet until mentioned]

052-13-93-05111

12. For an object in uniform circular motion, this quantity equals angular velocity squared times radius. Final velocity squared minus initial velocity squared equals two times displacement times this quantity. In another relationship, one half this quantity times time squared gives the displacement of an object starting from rest. For 10 points, name this quantity equal to force divided by mass in Newton's Second Law, the time derivative of velocity.

ANSWER: linear **acceleration** [or centripetal **acceleration**]

190-13-93-05112

13. A character in this play notes that, "no woman should ever be quite accurate about her age. It looks so calculating." Dr. Chasuble schedules two christenings, on the same day, for two men wishing to acquire the same name, but is stopped when Miss Prism explains about the handbag she'd left at Victoria Station years before. Therefore, Cecily and Gwendolen can marry Jack and Algernon, who are really brothers. For 10 points, name this comedy written by Oscar Wilde.

ANSWER: *The **Importance of Being Earnest***

190-13-93-05113

14. This man's namesake temperature equals surface gravity over two pi. This man calculated the proportionality constant between entropy and surface area in a formula he co-names with Bekenstein. With Penrose, he names a theorem stating that singularities can be "space-like" or "time-like", and this Lucasian Chair from 1979 to 2009 also predicted that black holes emit radiation. For 10 points, name this ALS-suffering author of *A Brief History of Time*.

ANSWER: Stephen **Hawking**

190-13-93-05114

15. Towards the end of this book, the protagonist becomes the first black streetcar conductor in San Francisco before trying to get pregnant to prove to herself that she is not a lesbian. That protagonist, who makes friends with Louise Kendricks, is raped by Mr. Freeman but inspired to write by Bertha Flowers. This book begins with the protagonist and her brother Bailey moving to Stamps, Arkansas to live with their grandmother. For 10 points, name this autobiography by Maya Angelou.

ANSWER: ***I Know Why the Caged Bird Sings***

192-13-93-05115



1A. What grammatical case is used in German for subjects such as "ich" and "du"?

ANSWER: nominative case

1B. What largest city in Turkey is split by the Golden Horn?

ANSWER: Istanbul

2A. Name the Japanese novelist who wrote *The Temple of the Golden Pavilion* and the *Sea of Fertility* tetralogy.

ANSWER: Yukio Mishima [or Mishima Yukio]

2B. In what dialogue does Socrates use the allegory of the cave and describe an ideal society ruled by philosopher-kings?

ANSWER: *The* Republic

3A. Carnegie Mellon University is located in what city that is located at the confluence of the Allegheny and Monogahela rivers?

ANSWER: Pittsburgh, Pennsylvania

3B. What leader of the Chinese Revolution was the founder of the Kuomintang Party?

ANSWER: Sun Yat-sen

4A. The most expensive painting ever sold was *The Card Players*, a work by what Frenchman also known for his still life paintings?

ANSWER: Paul Cezanne

4B. What branch of mathematics studies systems which are very sensitive to their starting conditions, like a double pendulum?

ANSWER: chaos theory

5A. This is a 20-second calculation question. Labels for six packages going to six different cities are randomly placed on the packages. What is the probability that each package is sent to the correct city?

ANSWER: 1/720 [prompt on 1 over 6 factorial]

5B. This is a 20-second calculation question. The five-digit number 7x438 ("seven, x, four, three, eight") is divisible by 9. What digit is x?

ANSWER: 5

6A. What Hawaiian goddess of fire, wind, and volcanoes resides in the caldera of Kilauea?

ANSWER: Pele

6B. What quantity is the energy required to remove an electron away from an atom, creating a cation?

ANSWER: ionization potential [or ionization energy]

7A. What Arabic city was home to the ancient House of Wisdom, where the mathematicians that helped develop algebra worked at?

ANSWER: Baghdad

7B. What Frankish king had himself crowned Holy Roman Emperor by the Pope on Christmas Day, 800?

ANSWER: Charlemagne [or Charles the Great; or Charles I; or Carolus Magnus]

8A. This is a 30-second calculation question. The long edges of an 6 x 10 inch piece of notebook paper are taped together to form a tube. What is the volume of air enclosed by the tube? Express your answer in terms of pi.

ANSWER: **90 over pi** cubic inches

8B. This is a 30-second calculation question. A regular octagon with side length 4 inches is oriented like a stop sign. Four diagonals are drawn, two vertical and two horizontal, which divide the octagon into four triangles, four rectangles, and one square. What is the area of the square?

ANSWER: **16** square units

9A. What NHL team captained by Jonathan Toews defeated the Philadelphia Flyers and the Boston Bruins to win the 2010 and 2013 Stanley Cups?

ANSWER: Chicago Black**hawks** [or **Chicago**]

9B. What psychologist coined the term “identity crisis” and outlined a series of internal conflicts in his eight stages of psychosocial development?

ANSWER: Erik **Erikson**

10A. The Well of Zamzam is visited and a stone representing the devil is stoned during what pilgrimage to Mecca?

ANSWER: **Haji**

10B. What German composer wrote the *Academic Festival Overture* and a famous lullaby?

ANSWER: Johannes **Brahms**



1. This Constitutional amendment was the subject of the *U.S. v. Leon* decision, which established a "good faith" exception. The *Weeks v. U.S.* case established the federal exclusionary rule for enforcing this amendment, which was extended to states in *Mapp v. Ohio*. This amendment was inspired by the "writs of assistance" and "general warrants" issued by British colonial governments. Identify this amendment which protects individuals from unreasonable search and seizure.

ANSWER: **Fourth** Amendment

019-13-93-05117

2. In a poem, this man describes a "delicate monster" who "dreams of the gallows in the haze of the hookah." T. S. Eliot's "The Waste Land" references this poet's line about a "hypocritical reader, my likeness, my brother!" This poet is perhaps best known for a work containing sections such as "Wine" and "Spleen and Ideal," which influenced the Symbolists. For 10 points, identify this French poet who wrote *Les Fleurs du Mal*.

ANSWER: Charles **Baudelaire**

126-13-93-05118

3. A city in this state built a bridge with an inscription saying that while that city "makes, the world takes". The "crime of the century" perpetrated by Bruno Hauptmann happened in this state. Its town of Manchester saw the explosion of the *Hindenburg*. This location of the Lindbergh kidnapping also produced inventions like the phonograph at Menlo Park. For 10 points, name this state home to Thomas Edison, whose cities include Paterson, Trenton and Princeton.

ANSWER: **New Jersey**

232-13-93-05119

4. During a visit to the United States, this man was disgusted by the film *Can-Can* and angry that he could not visit Disneyland. This world leader gave the "Secret Speech" against his predecessor. He banned publication of the novel *Doctor Zhivago*. This man banged his shoe on his desk in a 1960 UN meeting, and his country sought to install nuclear weapons during the Cuban Missile Crisis. For 10 points, name this leader of the Soviet Union who succeeded Josef Stalin.

ANSWER: Nikita **Khrushchev**

052-13-93-05120

5. On Titan, this molecule cycles through the moon analogously to water on Earth. This molecule forms clathrates with water ice on the ocean floor. Massive amount of this molecule would be released by the melting of permafrost and greatly contribute to global warming. This tetrahedral molecule is the simplest alkane. For 10 points, identify this principal component of natural gas, a hydrocarbon with formula CH<sub>4</sub>.

ANSWER: **methane** [or **CH<sub>4</sub>** before mention]

234-13-93-05121

6. A poem inspired by the death of this man includes a carol praising death as "lovely and soothing." That poem describes this man as a "powerful western fallen star." Another poem about this man's death states, "the ship has weathered every rack, the prize we sought is won," before recognizing that the title man has "fallen cold and dead." For 10 points, name this man elegized by Walt Whitman in "When Lilacs Last in the Dooryard Bloom'd" and "O Captain! My Captain!"

ANSWER: Abraham **Lincoln**

014-13-93-05122

7. These structures are called sparse if they are mostly filled with zeros. When each element of these structures contains another of these structures, they are called jagged. In Java, these data structures may exist as hybrid “Lists”, in which case they can be heterogeneous. When two-dimensional, these objects are often called matrices, while one-dimensional ones are called vectors. For 10 points, name these ordered, linear collections of data often represented with square brackets.

ANSWER: **arrays** [or **matrices** or **matrix** before mention; or **vectors** before mention]

190-13-93-05123

8. A current man to hold this position said he was once the victim of a “high-tech lynching for uppity blacks.” That former Education Department official almost failed to earn this position after being accused of sexual harassment by Anita Hill. Robert Bork’s nomination to this position failed during the Reagan presidency. For 10 points, name this position whose first female occupant was Sandra Day O’Connor, and which is currently held by men like Clarence Thomas.

ANSWER: **Supreme Court Justice** [prompt on **judge**, do not accept “Chief Justice”]

052-13-93-05124

9. During his Eastern Journey, this man survived an assassination attempt in the Otsu Incident. This man secretly supported a wave of pogroms in his country, and in his diary this man declared the "Bloody Sunday" massacre to be a "Bad Day!" This monarch refused to accept defeat in a 1905 war with Japan until his Baltic fleet was annihilated after going around the world. For 10 points, name this final czar of the Romanov dynasty who was executed with his family in 1917.

ANSWER: **Nicholas II** Romanov [prompt on **Nicholas**]

002-13-93-05125

10. This game won the 2009 Spiel des Jahres award for its designer Donald X. Vaccarino. Each turn consists of three phases often abbreviated ABC: Action, Buy and Cleanup. The basic types of cards used are Action, Reaction, Curse, Treasure and Victory. Members of the last category include Duchies and Provinces, with Colonies in the Prosperity expansion. For 10 points, name the card game in which players buy victory points after starting with 3 estate and 7 copper cards.

ANSWER: **Dominion**

147-13-93-05126

11. This city located on the southwest shore of Guanabara Bay is the site of Mount Corcovado. A cable car in this city can be used to reach Sugarloaf Mountain. A two and a half mile beach is located in this city's Copacabana neighborhood. Heitor da Silva Costa designed this city's colossal statue of Jesus with his arms outstretched. For 10 points, name this city that has the *Christ the Redeemer* statue and is the second-largest city in Brazil after Sao Paulo.

ANSWER: **Rio** de Janeiro

023-13-93-05127

12. In one film produced by a director from this country, a flashback reveals that a boy could not hold his brother's weight while playing the harmonica. In another film directed by that man from this country, Lee Van Cleef plays "Angel Eyes," who races Tuco and Clint Eastwood's unnamed character to a graveyard stash of Confederate gold. For 10 points, identify this country whose cinematic output includes Sergio Leone's *The Good, The Bad, and the Ugly*, among other "spaghetti westerns."

ANSWER: **Italy**

233-13-93-05128

13. One character in this story plays tunes that are described as sadder than Weber's final waltz. The narrator of this story recalls the singing of a song in his childhood called "The Haunted Palace." Towards this story's end, a book by Launcelot Canning about a knight named Ethelred, *The Mad Trist*, is read. In this story, Roderick dies after Madeleine, who had been buried under the title structure, reappears. For 10 points, name this short story, featured in *Tales of the Grotesque and Arabesque*, by Edgar Allan Poe.

ANSWER: "The **Fall of the House of Usher**"

192-13-93-05129

14. One equation used to find this value requires knowing the path length through a cell and multiplying that by the extinction coefficient. That equation for finding this value comes from the Beer-Lambert law. One piece of lab equipment can be used to create a spectrum of this logarithmic value versus wavelength. This value that can be found with the use of a spectrophotometer is equal to the log of one over the transmittance. For 10 points, name this concept in chemistry that leads to colors by causing certain wavelengths of light to not be reflected back.

ANSWER: **absorption** [or **absorbance**; accept word forms]

023-13-93-05130

15. A nearly blind virtuoso who played this instrument produced a classic recording of "Tea for Two." Miles Davis personally sought out another player of this instrument, who composed "Watermelon Man," for his second quintet. The most recorded jazz standard "Round Midnight" was composed for this instrument, and its composer also wrote "Straight, No Chaser." For 10 points, name this instrument played by Art Tatum, Herbie Hancock, and Thelonious Monk, who improvised with crazy chords over 88 keys.

ANSWER: **piano**

121-13-93-05131





1. In a story by this man set in Padua, a student inadvertently kills the woman he loves after giving her an antidote to the poisons she's been raised on. "Rappaccini's Daughter" appeared in the same collection as a story whose title character learns everyone including his wife Faith is secretly a witch. In a novel by this man, a minister dramatically reveals his seared chest on Election Day after being pursued by Roger Chillingworth. The minister is the lover of that novel's protagonist, Hester Prynne. For 10 points, name this author of *The Scarlet Letter*.

ANSWER: Nathaniel Hawthorne

121-13-93-05132

2. Cryospheric degradation contributes to this process, which causes inundation of atolls and eliminates habitats for anadromous animals. Tectonic movement and wind contribute to this process locally but the global mean for this process is also increasing. Erosion, storm surges, destruction of barrier islands, and salt intrusion are caused by this process which is influenced by El Nino and La Nina. Thermal expansion and glacial melt are the two primary causes of this phenomenon. For 10 points, name this elevation of the oceans caused by global warming.

ANSWER: sea level rise [or SLR; accept logical equivalents]

124-13-93-05133

3. When analyzing the function of this organ, one typically sees a QRS complex. This organ contains Purkinje fibers. Blood returns to this organ through the vena cava, and the SA node generates its contractions. This organ is surrounded by the pericardium membrane, and it contains four chambers. For 10 points, identify this human organ responsible for pumping blood.

ANSWER: heart

234-13-93-05134

4. This city was where police officer James Zadroga died, resulting in legislation meant to protect workers suffering from respiratory diseases. Over six hundred employees of Cantor Fitzgerald died here. The Richard Drew photograph *The Falling Man* shows a man jumping out of a building in this city to presumably escape a fire. It was the location of a building with the "Windows on the World" restaurant. For 10 points, name this city where the World Trade Center was destroyed on September 11, 2001.

ANSWER: New York City

052-13-93-05135

5. In a Daniell cell, this name is given to the piece of copper that is connected to a piece of zinc. In a galvanic cell, electrical current flows away from this location, which attracts electrons. This part of a galvanic cell is where the reduction reaction occurs, which is why it is considered positive in that case. For 10 points, give this name for a type of electrode that is used in batteries and is contrasted with the anode.

ANSWER: cathodes

023-13-93-05136

What leader of the Jacobins published the newspaper *Defense of the Constitution* and led the Committee of Public Safety before being overthrown in the Thermidorian Reaction?

ANSWER: Maximilien de Robespierre

This is a calculation question. The area of a circle is 13.25 square units. If the radius of the circle is doubled, what is the area of the new circle?

ANSWER: 53 square units