



1. A politician with this last name crashed a car in the Chappaquiddick incident. Another politician with this last name gave a speech at the Ambassador Hotel after winning the California primary before being assassinated by Sirhan Sirhan. Abraham Zapruder filmed a president with this last name being shot in Dealey Plaza in Dallas. For 10 points, give this last name of a political family that included Senators Ted and Robert F., as well as assassinated President John F.

ANSWER: Kennedy [or Edward Moore Kennedy; or Ted Kennedy; or Robert Francis Kennedy; or John Fitzgerald Kennedy]

023-13-93-07101

2. This character loses a hundred sheep loaded with riches, but then miraculously recovers one from a sinking ship. This man is framed with burglary by the governor of Buenos Aires, causing him to flee the city with his servant Cacambo. He is forced to buy his freedom with diamonds at Paris. This character and Pangloss are punished for “bringing” an earthquake to Lisbon, and he was previously expelled from Baron Thunder-ten-Tronckh’s household for kissing Cunegonde. For 10 points, name this character who titles a novel by Voltaire.

ANSWER: Candide

227-13-93-07102

3. A leader of this country said that “the left has no taste, even when it comes to women.” That leader formed the liberal-conservative party known as the People of Freedom. A politician from this country, Aldo Moro, was kidnapped and killed by the Red Brigades. A leader of this country held sexually explicit “bunga bunga” parties and founded the broadcasting company Mediaset. For 10 points, name this European country once led by AC Milan owner Silvio Berlusconi.

ANSWER: Republic of Italy

052-13-93-07103

4. This man was conceived when Pitheus got his father drunk so that he would sleep with Pitheus’s daughter. This hero killed Sinis by catapulting him from a bent pine tree. He was required to capture the Marathonian Bull, and his father threw himself into the sea when he forgot to exchange his black sails for white. This son of Aegeus abandoned Ariadne on Naxos after she gave him a spool of thread used in his most famous task. For 10 points, name this hero who navigated the labyrinth and killed the Minotaur.

ANSWER: Theseus

014-13-93-07104

5. The *U.S.S. Stark* was in this body of water when it was hit by two Exocet missiles. This body of water contains Kharg Island and the disputed islands of Greater and Lesser Tunb. Port cities on this body of water include Umm Qasr and Bushehr. Bahrain and Qatar jut into this body of water, connected to the Gulf of Oman by the Strait of Hormuz. For 10 points, name this section of the Indian Ocean that lies between the Arabian Peninsula and Iran.

ANSWER: Persian Gulf [prompt on Arabian Sea; prompt on Indian Ocean]

080-13-93-07105

6. Protein transport in this organelle is governed by the TIC and TOC complexes. The transfer of electrons from a quinone to a copper protein in this organelle is catalyzed by the cytochrome b6f complex. The splitting of water in this organelle reduces P680+ to P680. The stroma of this organelle contains grana, which are stacks of thylakoids. This organelle is thought to have evolved from endosymbiosis with cyanobacteria. For 10 points, identify this plant organelle where photosynthesis occurs.

ANSWER: **chloroplasts**

066-13-93-07106

7. This man depicted his patron speaking and moving in his portrait bust of Scipione Borghese. He redecorated the Sant'Angelo Bridge and built the Scala Regia and baldachin as the architect for St. Peter's Cathedral. In one of his sculptures, an obelisk towers over the Danube, Ganges, Rio de la Plata, and Nile. He also sculpted a nun being pierced by a spear held by an angel. For 10 points, name this Italian sculptor of the *Fountain of the Four Rivers* and the *The Ecstasy of Saint Theresa*.

ANSWER: Gian Lorenzo **Bernini**

030-13-93-07107

8. A subclass in this phylum has saliva that contains the peptide hirudin, which is an anticoagulant. A class in this phylum is characterized by the presence of a thickened, glandular section of body wall that is used for reproduction and known as the clitellum. Chitinous bristles known as chaetae that appear on parapodia characterize the polychaete class of this phylum. This phylum contains the leeches. For 10 points, identify this phylum of segmented worms that includes the earthworms.

ANSWER: **annelids** [or **Annelida**; or **segment worms** until it is read]

066-13-93-07108

9. During this conflict, the Ferdinand II defeated the "Winter King" Frederick V at the Battle of White Mountain. Some of this war's conflicts were resolved by the Treaty of Lubeck. The Catholic League was defeated at the Battle of Breitenfeld in this war by Gustavus Adolphus, whose forces defeated Wallenstein. The Bohemian Revolt occurred at the beginning of this war. For 10 points, name this war ended by the peace of Westphalia that lasted from 1618 to 1648.

ANSWER: **Thirty Years' War**

105-13-93-07109

10. This essay is prefaced by a brief poem beginning, "Cast the bantling on the rocks, suckle him with the she-wolf's teat." In response to a friend's objections that his impulses may come from below rather than above, the author states, "If I am the Devil's child, I will live then from the Devil." This essay concludes by praising "the triumph of principles" and stresses that "nothing can bring you peace but yourself." For 10 points, name this seminal essay by Ralph Waldo Emerson.

ANSWER: **"Self-Reliance"**

014-13-93-07110

11. In C, the keyword typedef can be used to create new objects for use in this operation. Global and local scope is determined by whether this operation is performed outside of all functions or inside a function. Statically typed languages without type interference must include the type of a variable or function when performing this operation. For 10 points, identify this operation that must be done before a function or variable is used, in which they are defined.

ANSWER: **declaration** [or word forms, such as **declare**; prompt on **definitions**]

066-13-93-07111

12. This character claims that he was once an Indian nobleman, and he supposedly has an art collection that rivals the Louvre. This character ordered the destruction of the *USS Abraham Lincoln*, and he appeared in *The Mysterious Island*. He was saved from a creature by Ned Land in the forest of Crespo. He also hosted the shipwreck victims Conseil and Professor Arronax. For 10 points, name this captain of the *Nautilus* in Jules Verne's novel *Twenty Thousand Leagues Under the Sea*.

ANSWER: Captain **Nemo**

030-13-93-07112

13. During this show's fifth season, three characters got work at the Spotlight Diner. Marley developed an eating disorder on this show after Kitty altered a costume to make her think she was gaining weight. On this show, Principal Figgins works with the Jane Lynch-played Sue Sylvester, who coaches the Cheerios and has a feud with Will Schuester. Members of the New Directions on this show often get slushed in the face. For 10 points, name this TV show about a Lima, Ohio, show choir.

ANSWER: **Glee**

023-13-93-07113

14. A fibrous of this rock type is known as Pele's hair, while a member of this rock type forms pillows near mid-ocean ridges. Dikes of this rock type can intrude into existing rock, and obsidian is an example of an extrusive type of this rock. For 10 points, name this rock type which forms from cooled magma, including basalt and granite.

ANSWER: **igneous**

236-13-93-07114

15. The speaker of one of this author's poems recalls how "the Windows failed-and then I could not see to see" after describing how "the Stillness in the Room was like the Stillness in the Air-between the Heaves of Storm." Another of her poems describes a carriage that "held but just Ourselves-and Immortality" after someone "kindly stopped for me." For 10 points, name this reclusive American poet of "I heard a fly buzz-when I died-" and "Because I could not stop for Death."

ANSWER: Emily **Dickinson**

014-13-93-07115



1A. What hypothetical thermodynamic process is the most efficient cycle for a heat engine?

ANSWER: Carnot cycle [accept Carnot heat engine]

1B. Name the pious king of England whose death led to a succession crisis ending with the invasion of William the Conqueror.

ANSWER: Edward the Confessor [prompt on Edward]

2A. Name the brother of Moses who made a golden calf while Moses was receiving the Ten Commandments.

ANSWER: Aaron

2B. The test variety of what sport with wickets and overs is played at grounds such as The Oval, Lord's, and Old Trafford during the Australia vs. England Ashes series?

ANSWER: test cricket

3A. Which country was ruled for a time under the "New Order" administration during the presidency of Suharto?

ANSWER: Republic of Indonesia

3B. The experiments of Francesco Redi and Louis Pasteur disproved what concept that living organisms could arise from nonliving substances?

ANSWER: spontaneous generation

4A. What set of problems in mathematics and physics, including the "P versus NP problem," were stated in 2000 and can result in a one million dollar prize to anyone who solves them?

ANSWER: Millennium Prize Problems

4B. What adjective is used to describe rhymes involving multiple syllables, such as "double" and "bubble"?

ANSWER: feminine

5A. What three letters, in a shortening of a Latin phrase, are used to end a successful mathematical proof?

ANSWER: Q.E.D. [or quod erat demonstrandum]

5B. What type of goods named after an American economist are favored at high prices due to their symbol as high-status commodities?

ANSWER: Veblen goods

6A. This is a 20-second calculation question. If two sides of a triangle measure 3 and 5, and the length of the third side is an integer, how many possibilities are there for that third side?

ANSWER: 5

6B. This is a 20-second calculation question. Jack and Jill each roll a six-sided die. What is the probability the number Jack rolls is greater than the number Jill rolls?

ANSWER: 5/12 [or 15/36]

7A. Who composed the score for the Soviet film *Alexander Nevsky* and produced *Peter and the Wolf*?

ANSWER: Sergey Prokofiev

7B. What artist made use of gold leaf in paintings such as *The Kiss*?

ANSWER: Gustav Klimt

8A. The failure of the levees of what lake/tidal lagoon near New Orleans caused devastation during Hurricane Katrina?

ANSWER: Lake **Pontchartrain**

8B. What Alan Paton novel depicts Stephen Kumalo's search for his son Absalom in Johannesburg?

ANSWER: **Cry, the Beloved Country**

9A. What daughter of Tantalus was turned into a stone after boasting that her fourteen children were superior to Leto's twins?

ANSWER: **Niobe**

9B. What British family includes Ralph, a deceased Marxist historian, David, the former Foreign Secretary, and Ed, the current leader of the Labour Party?

ANSWER: **Milibands**

10A. This is a 30-second calculation question. What is the cosine of the third-quadrant angle with cotangent 40/9?

ANSWER: **-40/41**

10B. This is a 30-second calculation question. Find all solutions to the equation " $x^3 + 3x^2 - 4x - 12 = 0$ ".

ANSWER: x equals **2**, **-2**, or **-3** [or x equals **plus or minus 2** or **-3**; or any answer giving **-3**, **-2**, and **2** in any order; do not accept partial answers; do not accept answers with additional numbers]



1. This author wrote a controversial 1900 novel about an immoral woman who becomes a Broadway star after having love affairs with Charles Drouet and George Hurstwood. A camera used to strike Roberta Alden on a rowboat is a crucial piece of evidence against a character created by this author. His most famous novel describes the downfall of Clyde Griffiths. For 10 points, name this naturalist author of *Sister Carrie* and *An American Tragedy*.

ANSWER: Theodore Dreiser

014-13-93-07117

2. Like Thomas Jefferson, this man wrote one of the Virginia and Kentucky Resolutions that opposed the Alien and Sedition Acts. A Supreme Court case sought to get a writ of mandamus to force this man to deliver a commission to William Marbury. A Gilbert Stuart portrait of George Washington was saved by this President's First Lady before the White House was burned during the War of 1812. For 10 points, name this husband of Dolley who succeeded Thomas Jefferson as President.

ANSWER: James Madison

023-13-93-07118

3. In the body, a compound that promotes smooth muscle relaxation is really this element's monoxide, a common free radical. In covalent molecules, this element usually forms a trigonal pyramidal geometry and has one lone pair. Most neutral weak bases contain this element. The only common homonuclear diatomic molecule with a triple bond consists of this element. For 10 points, name this element which bonds hydrogen in ammonia and has atomic number 7.

ANSWER: nitrogen

190-13-93-07119

4. Charlie Duke served as the CAPCOM on this mission. A member of this mission described a surface as "fine and powdery." A Jules Verne novel inspired the name of this mission's vehicle *Columbia*, which was piloted by Michael Collins. Two other members of this mission were transported by the *Eagle*, including Buzz Aldrin. For 10 points, name this NASA mission during which the quote "That's one small step for man, one giant leap for mankind" was said by Neil Armstrong on the moon.

ANSWER: Apollo 11 [prompt on Apollo; prompt on such answers as first moon landing]

023-13-93-07120

5. This play ends with an epilogue in which the main character appeals to both men and women to like the play. The main character of this play flees to the Forest of Arden, where she disguises herself as Ganymede. This play ends with the marriage of Orlando and Rosalinde, and includes a speech that contains the line "all the men and women are merely players." For 10 points, name this comedy by Shakespeare, which includes the line "All the world's a stage."

ANSWER: As You Like It

140-13-93-07121

6. Some verbs add a "g" in this tense, and others change a "c" to a "zc" when in the first person singular in this tense. The stem-changing verbs are defined as those whose stem vowel changes when it is stressed in this tense and not in other tenses. The only verb which takes the same form for all persons and numbers in this tense is "hay" ("EYE). -Ar ("A"- "R") verbs in the indicative of this tense take the endings o, -as, -a, -amos,

ANSWER: Spanish **present** tense

019-13-93-07122

7. An equation named for this physicist can be found by applying the Hamiltonian operator to the wave function. This man came up with a theoretical situation that involved using a hammer, a vial of poison, a Geiger counter, and a radioactive substance. That situation was used by this physicist to explain the idea of superposition in quantum mechanics. For 10 points, name this Austrian physicist who developed a paradox in which a box holds a cat that is both dead and not dead.

ANSWER: Erwin **Schrodinger**

023-13-93-07123

8. The narrator of this novel recalls with contentment telling the title character, "You're worth the whole damn bunch put together," explaining it was the only compliment he ever gave him. In this novel, a mechanic shoots a man in a swimming pool after his wife Myrtle is run over by a car. In this novel, Daisy Buchanan, the cousin of Nick Carraway, has an affair with the title millionaire. For 10 points, name this novel by F. Scott Fitzgerald.

ANSWER: *The* **Great Gatsby**

014-13-93-07124

9. This present-day country was the site of the Danish Christiansborg Castle, the Dutch Fort Crevecoeur, and the English Fort James. Its capital was named for the black ants characteristic of its plains, and is linked to its cities of Kumasi and Tema. This country was known in colonial times as the Gold Coast before it became independent under Kwame Nkrumah. For 10 points, name this country on the Gulf of Guinea found between Burkina Faso, Togo, and Côte d'Ivoire.

ANSWER: Republic of **Ghana**

019-13-93-07125

10. The speaker of this poem is angry that "some officious fool" made a gift of a bough of cherries. Artwork described in this poem includes a bronze of Neptune by Claus of Innsbruck and a painting of the title character by Fra Pandolf. The speaker of this poem is angry that the title character was "too soon made glad," so he ensured that "all smiles stopped together." For 10 points, name this poem that implies the title noblewoman was murdered by her husband, and which was written by Robert Browning.

ANSWER: "**My Last Duchess**"

023-13-93-07126

11. The kinetic isotope effect explains how molecules with a greater value for this quantity have slower reaction rates. The ratio of this quantity to charge can be determined by a form of spectrometry that forms molecular ions. This quantity, which is often measured in daltons or amus [A-M-Us], is reported on the Periodic Table by averaging it across all isotopes, explaining why cobalt has a higher value for it than nickel. For 10 points, name this quantity measured in grams per mole.

ANSWER: molar **mass** [or molecular **weight**; or formula **weight**]

190-13-93-07127

12. This molecule is the most common source of the group that kinases transfer. The synthase that creates this molecule has F-sub-zero and F-sub-one subunits. A cyclase transforms this molecule into cAMP. The consumption or production of this molecule determines the investment and pay-off phases of glycolysis. The hydrolysis of this molecule yields -30.5 kilojoules per mole and ADP. For 10 points, identify this energy currency of the cell.

ANSWER: **ATP** [or **adenosine-5 prime-triphosphate**]

066-13-93-07128

13. This man sings "aviator shades, cause she shine so bright, beats on the G5, songs I write" in "She's Like a Star." In his debut single, he worries that "when I touched your hand, you didn't wanna hold" and says "If you're leaving me, baby, I just wanna know." In another song, he claims "I came to dance, dance, dance, dance," and says "I wanna celebrate and live my life, saying ayo, baby let's go." For 10 points, name this British singer of Nigerian descent who recorded "Dynamite."

ANSWER: Jacob Taio **Cruz**

080-13-93-07129

14. It's not Chick-Fil-A, but in August 2013, this chain was the location of an "Appreciation Day" event which led it to temporarily close its Newtown, Connecticut location. This chain denied a 40,000-signature petition to ban guns from its stores, but, in September 2013, its CEO, Howard Schultz, requested that customers choose not to openly carry weapons here. For 10 points, identify this Seattle-based purveyor of gingerbread lattes, Oreo frappuccinos, and a distinctive dark-roasted basic coffee.

ANSWER: **Starbucks**

019-13-93-07130

15. This man was the closest collaborator with the librettist Lorenzo Da Ponte. In one of his operas, a maid is serenaded with a mandolin by a window and the title character commands his servant to gather girls for a party in the "Champagne Aria." The maid Susanna assists the title character in rekindling Count Almaviva's love for Rosina in another opera by this man, the sequel to *The Barber of Seville*. For 10 points, name this composer of the operas *Don Giovanni* and *The Marriage of Figaro*.

ANSWER: Wolfgang Amadeus **Mozart** [or Johannes Chrysostomus Wolfgangus Theophilus **Mozart**]

020-13-93-07131



1. This politician supported Barry Goldwater's presidential campaign with the "A Time for Choosing" speech. Members of this man's administration violated the Boland Amendment. This President was reelected by receiving every electoral vote except for Minnesota's and D.C.'s against Walter Mondale. This man's Secretary of Defense Caspar Weinberger resigned because of the Iran-Contra scandal. For 10 points, name this President who asked Mikhail Gorbachev to "tear down this wall" in 1987.

ANSWER: Ronald Wilson Reagan

023-13-93-07132

2. The membranes of these organisms contain a glycerol-ether bond. Some of these organisms contribute to marsh gas; those are known as methanogens. The cell walls of these organisms contain pseudopeptidoglycan. A common misconception is that these organisms are extremophiles. For 10 points, name this domain of single-celled organisms, which were once misclassified as bacteria.

ANSWER: Archaea [or archaeobacteria]

140-13-93-07133

3. This poem describes a group of "good men" who cry because of "how bright their frail deeds might have danced in a green bay." The speaker of this poem also describes "grave men" whose "blind eyes could blaze like meteors and be gay." The author of this villanelle addressed his father in the last stanza, urging him to fight against his looming death. For 10 points, name this poem by Dylan Thomas that commands its addressees to "rage, rage against the dying of the light."

ANSWER: "Do Not Go Gentle into That Good Night"

023-13-93-07134

4. A brown stripe across this body vanished in May 2010, but re-emerged during its November 2010 prominence in the sky. That "South Equatorial Belt Outbreak" is located below a white spot that coalesced in 2000. The Lagrange points of this planet are occupied by the asteroids called Trojans, and it is also orbited by the Galilean moons, including the heavily cratered Callisto and the red Io. For 10 points, the Great Red Spot is another prominent feature of what largest planet in the solar system?

ANSWER: Jupiter

019-13-93-07135

5. On the complex plane, multiplying a point by this number is equivalent to a 90 degree counter-clockwise rotation around the origin. In De Moivre's formula, the sine function is multiplied by this number on both sides of the equation. On the complex plane, the unit circle intersects this value and its negative on the y-axis. The constant e raised to this number times pi is negative one. For 10 points, name this square root of negative one.

ANSWER: i [or imaginary unit; or j; or square root of negative one until it is read; prompt on imaginary number; prompt on complex number]

121-13-93-07136

What school of philosophy that advocates the greatest good for the greatest number was founded by Jeremy Bentham and John Stuart Mill?

ANSWER: utilitarianism

This is a calculation question. Tony and Maria each have exactly 60 coins, each of which is either a quarter or a dime. If Tony has three dollars more than Maria, how many more quarters does he have than she does?

ANSWER: 20