



1. One of this man's works states that he has built a monument more lasting than bronze, while another is addressed to a Bandusian fountain. Other poems by this man include one in which he advises Leuconoe (loo-cuh-NO-ee) to trust tomorrow as little as possible. In one work, he coined the term "in medias res" while describing how to begin an epic. For 10 points, name this Roman poet of *Ars Poetica* whose *Odes* include the poem in which he coined the phrase "carpe diem," or "seize the day."

ANSWER: **Horace** [or Quintus **Horatius** Flaccus]

142-12-55-02101

2. One method of calculating this quantity uses the square root of the differences of dissociation energies of certain bonds between two elements. The partial ionic character of a bond is determined by the difference of this value for the two elements involved in the bond. This quantity is measured on the Pauling scale, and fluorine has the highest value of it. For 10 points, name this quantity, the ability of a bonded atom to attract shared electrons in a bond.

ANSWER: **electronegativity**

131-12-55-02102

3. In one scene, this character is painted blue and advertised as "The Sick Arab." After his companion attempts to enter town as a girl, he stays on Jackson Island. After this character is sold by the King, the protagonist of the novel he appears in declares, "All right, then, I'll go to hell" and works to ensure his freedom. This man eventually gains his freedom after the death of Miss Watson. For 10 points, name this slave that appears in Mark Twain's *Adventures of Huckleberry Finn*.

ANSWER: **Jim**

064-12-55-02103

4. A region of this country popular with sailors and fisherman is known as the Masurian Lakes. Part of this country's southern border is formed by the Tatra Mountains. This country's Odra River passes Cathedral Island as it flows through the city of Breslau. This country is divided in half by the Vistula River, which flows into the Baltic Sea. Its major cities include Malbork, Gdansk, and Krakow, and it borders the Czech Republic and Germany to the west. For 10 points, name this European country that has its capital at Warsaw.

ANSWER: **Poland**

015-12-55-02104

5. This mythological figure was sheltered in a hut by Hecale (HAY-kuh-lay) on his way to Marathon. This hero was once stuck to a bench in Hades with his friend Pirithous (PEER-ih-thoos), and his sons Demophon (DEH-moh-fahn) and Acamas (ack-AA-muss) were born by his second wife, Phaedra. This son of Aethra (EYE-thruh) forgot to put up white sails instead of black, causing his father to throw himself into the sea. For 10 points, identify this Greek hero, son of King Aegeus (uh-JEE-us), who slew the Minotaur and founded Athens.

ANSWER: **Theseus**

126-12-55-02105

6. The protagonist of this novel sees a corpse's eyes being eaten by ants shortly before becoming enraged when he hears his companions referred to as "a bunch of mule drivers." The protagonist is mistaken for Tom Jamison by "the tattered man" during his escape into the forest. After reading the *Iliad*, the main character joins the New York 304th alongside Wilson and Jim Conklin and acquires the title wound. For 10 points, name this novel about Henry Fleming's service in the Civil War, written by Stephen Crane.

ANSWER: The Red Badge of Courage

019-12-55-02106

7. This man was the senior advisor to the 1996 presidency campaign of Bob Dole. He proclaimed that his answer to "gotcha questions" would be "I don't know, do you know?" in a complaint about being asked to name the leader of "Ubeki-beki-beki-beki-stan-stan." He unsuccessfully ran for a 2004 Senate nomination from Georgia, after ten years as the CEO of Godfather's Pizza. He suspended his most prominent political effort due to allegations of adultery and sexual harassment. For 10 points, name this former candidate for the 2012 Republican Presidential nomination, best known for his "9-9-9 Plan."

ANSWER: Herman Cain

088-12-55-02107

8. In a story by this author, Lorraine and Duncan appear drunk at Marion's house, foiling their friend Charles's attempts to recover his daughter Honoria. This author of "Babylon Revisited" wrote a novel in which the title character is shot in his swimming pool in retribution for the death of Myrtle Wilson. That character's pursuit of his lost love Daisy Buchanan is observed by his friend, Nick Carraway. For 10 points, name this American novelist of *The Great Gatsby*.

ANSWER: Francis Scott Key Fitzgerald

080-12-55-02108

9. Calcium regulates this pathway by activating isocitrate (iy-soh-CIH-trate) dehydrogenase (dee-high-DRAH-geh-nays). Coenzyme Q helps convert succinate (SUCK-sih-nate) into fumarate (FEW-mih-rate) during this process. This process takes acetyl CoA (ah-SEE-till KOH-AY) and eventually ends in oxaloacetate (acks-sah-loh-AH-seh-tate). Each turn of this process produces one ATP via substrate level phosphorylation (fahs-for-ih-LAY-shun), but it also generates three molecules of NADH. For 10 points, name this cycle of cellular respiration that takes place in the matrix of mitochondria, sometimes called the citric acid cycle.

ANSWER: Krebs cycle [prompt on citric acid cycle before it is mentioned]

127-12-55-02109

10. Within this state, an area between Bulls Bay and Lake Moultrie is a preserve named for the state hero Francis Marion. The towns of Golden Grove, Travelers Rest, and Mauldin are found near a city in the northwest of this state that is home to both Bob Jones and Furman Universities. Sullivan's Island sits in the harbor of a major city in this state, which is home to The Citadel. For 10 points, name this state, also the location of Clemson, whose cities include Charleston and Myrtle Beach.

ANSWER: South Carolina

019-12-55-02110

11. Defects in this organelle cause Pearson Syndrome which evolves into Kearns-Sayre Syndrome. This organelle releases cytochrome c during apoptosis (ay-pop-TOH-sis). A porin layer surrounds this organelle that contains a matrix, bounded by the inner membrane, which has folds known as cristae (KRIS-tie). It has its own DNA, inherited only from the mother. For 10 points, name this organelle that produces ATP and is the powerhouse of the cell.

ANSWER: mitochondria [or mitochondrion]

124-12-55-02111

12. This opera's title character, while drawing cards with Mercedes and Frasquita (fras-KEE-tah), is repeatedly confronted with an omen of death. Earlier in this opera, that character sings about the innkeeper Lillas Pastia (LIH-las PAHS-tyah); in her first aria, the title character sings that "love is like a rebellious bird." This opera also sees Escamillo (es-kah-MEE-yo) sing the "Toreador Song," and ends with Don Jose stabbing the title character. For 10 points, identify this Bizet (bee-ZAY) opera in which the title gypsy woman sings the "Habanera" (ha-ba-NEH-rah).

ANSWER: *Carmen*

126-12-55-02112

13. Sessile organisms use allelopathy (ah-LELL-oh-path-ee) in this process. Ecological release is a result of this process that is intense between sympatric congeneric species. Volterra developed a coefficient for this process that Gause determined had an exclusion principle. Resource partitioning avoids this density-dependent process that is either exploitation or interference. Courtship rituals and niche dispersion are examples of this process. For 10 points, name this process of organisms fighting for limited resources.

ANSWER: competition

124-12-55-02113

14. The title character of this play dies after declaring that he "threw a pearl away richer than all his tribe" and lamenting, "I kissed thee ere I killed thee." In this play, Brabantio becomes enraged when he learns that the title character has married his daughter. Roderigo fails to assassinate Cassio in this play. Emilia is married to the villain of this play, who manipulates the protagonist into murdering his wife, Desdemona. For 10 points, name this Shakespeare play in which Iago deceives the title Moor of Venice.

ANSWER: *Othello*

015-12-55-02114

15. A ritual that takes place the night before this holiday involves using a candle and a feather on a search. *Adir Hu* (AHD-eer HOO) and *Avadim Hayinu* (AH-vah-deem hi-EY-noo) are sung on this holiday, as well as the lengthy counting song *Echad Mi Yodea?* (ech-ODD mee yo-DEE-uh). This holiday begins with an event whose name means "order." The youngest person at that event asks the Four Questions, which are answered by telling the story of the Exodus. For 10 points, name this Jewish holiday celebrated with a seder (SAY-dur), at which one eats matzah.

ANSWER: Passover [or Pesach]

142-12-55-02115



1A. What German playwright wrote the *Wallenstein* (VAHL-ehn-shtine) trilogy in addition to *William Tell*?

ANSWER: Johann Christoph Friedrich von **Schiller**

1B. What composer wrote *Hungarian Rhapsodies* and the *Mephisto Waltzes*?

ANSWER: Franz **Liszt**

2A. What Islamist organization was banned in Egypt under the rule of Hosni Mubarak and launched the Freedom and Justice Party after his downfall, garnering a plurality of votes in November 2011 elections?

ANSWER: **Muslim Brotherhood**

2B. What sculptor of *The Age of Bronze* depicted Paolo and Francesca in *The Kiss* and sculpted *The Thinker*?

ANSWER: Auguste **Rodin**

3A. This is a 10-second computation question. What is the tangent of the arcsin of 5/13?

ANSWER: **5/12**

3B. This is a 10-second calculation question. What is the point of intersection of the lines  $y = 3x + 2$  and  $y = -4$ ?

ANSWER: **(-2, -4)**

4A. What poetic term is defined as unrhymed iambic pentameter?

ANSWER: **blank verse**

4B. What painter of the *Mond Crucifixion* painted a pair of philosophers surrounded by their colleagues in *The School of Athens*?

ANSWER: **Raphael** Santi

5A. This is a 20-second calculation question. A set of three numbers has mean 16, median 20, and range 30. What is the smallest number in the set?

ANSWER: **-1**

5B. This is a 20-second computation question. If a set of painters can paint a square foot every fifteen seconds, how many minutes will it take to paint the four walls and ceiling of a room that is twelve feet long, ten feet wide, and ten feet high?

ANSWER: **140 minutes** [or **2 hours, 20 minutes**]

6A. What process occurs at mid-ocean ridges and was proposed by Harry Hess?

ANSWER: **seafloor spreading**

6B. Name the power forward for the Miami Heat who was signed away from the Raptors during the 2010 offseason.

ANSWER: Christopher Wesson **Bosh**

7A. In what short story by Flannery O'Connor are the Grandmother and her family killed by the Misfit and his men after a car crash?

ANSWER: "A **Good Man Is Hard to Find**"

7B. What metal is found in a dioxide often used in white paints and dyes and is widely used in aeronautical equipment?

ANSWER: **titanium** [or **Ti**]

8A. In astronomy, standard candles are used to find what quantity that is measured in light years?

ANSWER: **distance**

8B. The Little Mermaid statute can be found in what Scandinavian capital?

ANSWER: **Copenhagen**

9A. What monster that was part goat, lion, and snake was defeated by Bellerophon (buh-LAIR-oh-fon) with the assistance of Pegasus?

ANSWER: **chimera** (kai-MARE-uh)

9B. What Java keyword is used to identify variables and methods that cannot be modified by instantiations (inz-TAN-tee-ey-shunz) of a class, contrasted with those that are identified as “instance?”

ANSWER: **static**

10A. This is a 30-second calculation question. In a game of Twister, on any given move, your probability of falling down is 1 minus 1 over the number of that move. What is the probability of you falling down exactly on the fourth move? Express your answer as a reduced fraction.

ANSWER: **1/8**

10B. This is a 30-second calculation question. Find all real and complex roots of the equation:  $2x^3 + x^2 + 18x + 9 = 0$ .

ANSWER: **{-0.5, 3i, -3i}** [or  $x =$  **negative one-half, three i, and negative three i**; answers can be given in any order]



1. This author wrote about Daniel Dravot and Peachey Carnehan being appointed as kings of Kafiristan in one story. He wrote of Harvey Cheyne's adventures on board the *We're Here in Captains Courageous*. This author of "The Man Who Would Be King" wrote a story concluding with the defeat of the king cobra Nagaina by a mongoose named Rikki-Tikki-Tavi. For 10 points, name this British author who wrote about Shere Khan, Baloo, and Mowgli in *The Jungle Book*.

ANSWER: Joseph Rudyard **Kipling**

088-12-55-02117

2. This Greek letter represents a value equal to the difference between the natural logarithm and harmonic sequence, about .577. The Euler-Mascheroni ("oiler" mah-skuh-ROH-nee) constant is represented by this letter as is a function that is used to extend the factorial function to most real numbers. It also represents a quantity that gives a ratio of velocity to the speed of light called the Lorenz factor. For 10 points, name this Greek letter that refers to a type of radiation stronger than alpha or beta rays.

ANSWER: **gamma**

127-12-55-02118

3. In this novel, the neighbor Mr. Frederick blows up a rebuilt windmill with dynamite. The protagonists of this novel take issue with Moses's words about Sugarcandy Mountain and Mollie's desire for ribbons. One character in this novel works harder and harder only to be sold to a glue factory. Boxer and the other creatures in this work are told, "Some animals are more equal than others," after the pigs Snowball and Napoleon stage a revolution. For 10 points, name this allegorical novel by George Orwell.

ANSWER: **Animal Farm**

105-12-55-02119

4. One man with this surname developed a namesake law that states that the magnetic coefficients of attraction vary with absolute temperature. Two men with this surname discovered piezoelectricity (pee-eh-zoh-ee-leck-TRIH-sih-tee). One scientist with this surname discovered properties of thorium at the same time as G.C. Schmidt and studied pitchblende. One scientist with this surname discovered polonium and died of leukemia, the same fate as Irene. For 10 points, name this last name shared by Marie and Pierre, both of whom discovered radium.

ANSWER: **Curie**

124-12-55-02120

5. With a British diplomat, this man negotiated a treaty that resolved hostilities arising from the Caroline Affair. Earlier, he defended his alma mater in the case *Dartmouth College v. Woodward*. He formed what was known as the Great Triumvirate with Clay and Calhoun and delivered a speech in which he declared "liberty and union, now and forever, one and inseparable." For 10 points, name this debater against Robert Hayne who was a Massachusetts Senator known for his oration skills.

ANSWER: Daniel **Webster**

064-12-55-02121

6. One author from this country wrote a novel about the spirit child Azaro titled *The Famished Road*. Another author from this country wrote about Elesin, who is required to commit ritual suicide, in the play *Death and the King's Horseman*. This country, home to Ben Okri and Wole Soyinka, is also home to an author who wrote about the suicide of the Igbo man Okonkwo after an altercation with British officials. For 10 points, Chinua Achebe hails from what country, the most populous in Africa?

ANSWER: Federal Republic of **Nigeria**

141-12-55-02122

7. This event was triggered by William Rawle issuing 60 subpoenas. William Findley changed the law at the center of this event, which saw a group of Mingo Creek militiamen surround Bower Hill. Lighthorse Harry Lee commanded the federal force that put down this insurrection. This uprising occurred in response to part of Alexander Hamilton's plan to pay off the national debt. For 10 points, identify this 1789 uprising of Pennsylvania farmers that responded to an excise tax on liquor.

ANSWER: **Whiskey** Rebellion

048-12-55-02123

8. In one quest in this game, the protagonist encounters Laelette and Alva while investigating a house fire. Another quest involves finding Viarmo a lost verse from the "Poetic Edda." In this game's main quest, the protagonist is taught by the Greybeards in High Hrothgar to use Thu'um (THOO-um). The protagonist is a Dovahkiin (DAH-vuh-kin) who must defeat Alduin, and is present when the town of Helgen is attacked by a dragon. For 10 points, name this fifth game in the *Elder Scrolls* series, which follows *Oblivion*.

ANSWER: *The Elder Scrolls V: **Skyrim*** [or ***The Elder Scrolls V: Skyrim*** before "fifth" is read; do not accept or prompt on "The Elder Scrolls"]

142-12-55-02124

9. This scandal came to light after the capture of Eugene Hasenfus. Fawn Hall testified that she shredded a series of documents during this event. The Tower commission was created in order to investigate this scandal, whose central action was a violation of the Boland Amendment. This affair saw the transfer of millions of dollars to a group opposing the Sandinistas. For 10 points, name this Reagan-era affair in which arms were sold to a Middle Eastern country to fund rebels in Nicaragua.

ANSWER: **Iran-Contra** affair [or **Contragate**; or **Irangate**]

048-12-55-02125

10. Like Portuguese, the standard form of this language includes the unusual phoneme of "uvular r," and it also contains several nasal vowels and no neuter nouns. In this language, an adjective that describes beauty or age comes before the noun. The Toubon Law is an attempt to prevent Anglicization of this language. This is an official language in Burundi, Senegal, and Togo. Its variants include Acadian and Cajun. For 10 points, name this language which includes expressions such as "je ne sais quoi" (jeh nay seh KWAH) and "bonjour."

ANSWER: **French** [or **Francais**]

124-12-55-02126

11. The Peshtigo fire burned mostly in this state. Charles Langlade led Indian tribes from this modern-day state at both the Battle of the Monongahela and the Plains of Abraham. While wearing traditional Chinese clothing, Jean Nicolet arrived in this state. The Treaty of Prairie du Chien was signed in this state. Direct primary elections were named for the "Idea" of this state that was home to Robert LaFollette, who exposed the Milwaukee Ring. For 10 points, name this state with capital at Madison.

ANSWER: **Wisconsin**

124-12-55-02127

12. The dot product of the unit vector with the gradient of a function is used to find the directional form of this measurement. This measurement is applied to both parts of a fraction in L'Hopital's (leh oh-pee-TALZ) rule. For functions containing multiple variables, the partial form of this measurement is used. For a function that is composed of multiple other functions, the chain rule is used when applying this measurement. For 10 points, name this measurement from calculus that describes how a function changes over time.

ANSWER: **derivative** [or word forms like **differentiation** or taking a **derivative**]

064-12-55-02128

13. This quantity is multiplied by an integer value in Bragg's law. According to de Broglie, this quantity is equal to Planck's constant divided by momentum. The inverse of this quantity is known as the wavenumber. A change in this property for light is called a red shift. Additionally, dividing the speed of light by this quantity, denoted lambda, gives the frequency of light. For 10 points, name this property of a wave which for visible light ranges from about 400 to 700 nanometers.

ANSWER: **wavelength**

064-12-55-02129

14. In this show, one character shows up to an economics class on his first day as a professor. That character in this show finds a yellow umbrella in a club one night. This show's narrator is left at the altar by Stella, and earlier dated the singer of "Let's Go to the Mall." One character in this show sings "Nothing Suits Me Like a Suit," and works at Goliath National Bank. Much of this show takes place at McClaren's, above which Marshall Erikson used to live. For 10 points, name this show, which stars Neil Patrick Harris as Barney, in which Ted Moseby tells his children the title tale.

ANSWER: ***How I Met Your Mother***

149-12-55-02130

15. John Batman made an unofficial treaty with these people. Governor Macquarie prevented the movement of these people who were killed by Governor Stirling at the Battle of Pinjarra. Jandamarra, one of these people, led revolts in the West Kimberleys. A.O. Neville forced the relocation of these people. After John Howard refused, Kevin Rudd apologized to these people for the forced removal of their children during the Stolen Generations. For 10 points, name these indigenous people of Australia.

ANSWER: **Aborigines** [or **Aboriginals**]

124-12-55-02131



1. Marshal Grouchy was unable to help at this battle since he had been sent to Wavre. Mont-Saint-Jean was the site of a farm during this battle. It directly followed battles at Quatre Bras (KAH-trah BRAH) and Ligny. La Haye Sainte was captured by Michel Ney during this engagement. The decisive blow came when von Blucher's Prussians took Plancenoit. For 10 points, name this 1815 battle that ended the Hundred Days as a victory for the Duke of Wellington and the final defeat for Napoleon Bonaparte.

ANSWER: Battle of Waterloo

127-12-55-02132

2. Rotational inertia is equal to the integral of the radius squared with respect to this quantity. Kinetic energy is one half this property times velocity squared. The Super-Kamiokande team found that neutrinos have this property. This property is equal to momentum divided by velocity and acceleration divided by force. Einstein said that energy equals this property times the speed of light squared. Weight is this property times gravity. For 10 points, name this quantity of matter measured in grams.

ANSWER: mass

124-12-55-02133

3. This man names a theorem with Schutzenberger concerning the length of words in a context-free grammar. He developed X-bar theory as well as the Minimalist Program. He asserted that a "poverty of the stimulus" means that children must have an innate language acquisition device. This thinker's most famous works contains his idea of the transformational-generative grammar, as well as the sentence "colorless green ideas sleep furiously." For 10 points, name this author of *Syntactic Structures*, a linguist at MIT.

ANSWER: Noam Chomsky

127-12-55-02134

4. Juan Ortiz, a member of the Narvaez expedition, was rescued by this man. This man accompanied Pizarro in his conquest of the Incan Empire, where he allegedly taught Atahualpa how to play chess. In another journey, he was attacked by Chief Tuskaloosa near modern-day Mobile. This man died of illness in modern-day Arkansas after his expedition traversed a large body of water near Memphis. For 10 points, name this Spanish explorer and first European to sight the Mississippi River.

ANSWER: Hernando de Soto [or Fernando de Soto]

064-12-55-02135

5. This empire extended religious toleration in allowing different communities called "millets" to exercise their own religious laws. This empire crushed the Hungarians under Louis II at the Battle of Mohacs, and it twice unsuccessfully besieged Vienna. The *devshirme* system was used by this empire to recruit Christian children into its elite Janissary force. For 10 points, name this Turkish empire that collapsed shortly after World War I.

ANSWER: Ottoman Empire

080-12-55-02136

This is a calculation question. For what values of  $x$  is the function  $-x^2 + 6$  greater than 2?

ANSWER: (-2, 2) [or between negative 2 and 2, exclusive; prompt on "between negative 2 and 2"; accept synonyms for exclusive]

080-12-55-02137

What French scientist lends his name to the five points around a body where an orbiting satellite could remain motionless?

ANSWER: Joseph Louis **Lagrange**

080-12-55-02137