



1. In the aftermath of this man's death, his first wife Roxana ordered the death of his second wife Barsine. This man's successors, known as the Diadochi, fought wars that established the Seleucid and Ptolemaic (tall-uh-MAY-ik) empires. He defeated his rival, Darius III of Persia, at both Issus and Gaugamela, and began the Hellenistic period in Greece and the Middle East. For 10 points, name this son of Philip II who, by age 33, had conquered as far as India from his home kingdom of Macedonia.

ANSWER: **Alexander the Great** [or **Alexander III**; or **Alexander of Macedonia**; prompt on **Alexander**]

019-12-36-09101

2. Alexander Glazunov orchestrated this man's music for the ballet *Les Sylphides*. In one entry in this composer's Opus 10, the right hand plays triplets on the black keys. Another entry in this man's Opus 10 was inspired by the November Uprising. This composer of the *Revolutionary Etude* also wrote the "Heroic" and "Military" polonaises. A dog chasing its own tail inspired his "Minute (my-NOOT) Waltz". For 10 points, name this Polish composer.

ANSWER: Frederic Francois **Chopin** [or Fryderyk Francisek **Szopen**; pronounced sho-PAN]

020-12-36-09102

3. This leader's policies were opposed by an anti-Semitic priest with an inflammatory radio program named Father Coughlin. This President was closely advised by Harry Hopkins, and he appointed Frances Perkins as Secretary of Labor during his first term in office. This President gave many speeches known as fireside chats on the radio, but his most famous speech described a bombing as "a day that will live in infamy." For 10 points, identify this leader during the Great Depression and World War II.

ANSWER: **Franklin Delano Roosevelt** [or **FDR**; prompt on **Roosevelt**]

126-12-36-09103

4. Five beech forests in this country were made World Heritage sites in 2011. Its northern coastline comprises the region of East Frisia. Uplands in the center of this country merge with the Ore Mountains near the Czech Republic border. In 1990, Checkpoint Charlie was demolished as part of the reunification of this country. For 10 points, name the European country bordered by France and Poland which formerly was divided into West and East parts.

ANSWER: **Germany**

147-12-36-09104

5. The protagonist of this work is described as having aged five years in a week prior to raising a sum of thirty-six thousand francs. The protagonist is distressed by an invitation from Madame Ramponneau and the Minister of Education to a party. Meeting with Madame Forestier years later, Madame Loisel discovers that the borrowed title object was a fake. For 10 points, name this short story by Guy de Maupassant (GEE deh MOE-puh-sahnt) about a piece of jewelry.

ANSWER: "The **Necklace**" [or *La **Parure***]

014-12-36-09105

6. A hemoglobin known by this letter replaces lysine with glutamate in position 6 of the beta-chain. The enzyme that cleaves PIP₂ into DAG and IP₃ at the cell membrane is a phospholipase designated by this letter. The hepatitis virus designated by this letter is transmitted by IV drug use, establishes a chronic infection, and has no cure. The nucleotide designated with this letter is an amine-containing pyrimidine and base pairs with guanine. For 10 points, name this letter, the symbol for carbon.

ANSWER: **C**

048-12-36-09106

7. This author depicted the Jacobite Rebellion of 1715 in a novel following the Osbaldistone family in which Rashleigh is killed in a fight with a Scottish outlaw. This author also included Richard I disguised as the Black Knight in another work which created the modern image of Robin Hood. In that novel, the title character known as “the Disinherited Knight” wins the love of Rowena. For 10 points, name this English author of *Rob Roy* and *Ivanhoe*.

ANSWER: Walter **Scott**

014-12-36-09107

8. Near the end of *Final Fantasy VIII*, Squall uses this process to meet Ultimecia. In another game, it is used to reach Spekkio’s magic training room or the final boss Lavos, and is first seen after Marle’s pendant causes a malfunction in Lucca’s machine at the Millenium Fair. For 10 points, name this general ability integral to *Chrono Trigger*, which Link does in *Zelda: Majora’s Mask* to return from Day 3 to Day 1 of his quest.

ANSWER: **time travel** [or going **forward in time** until "malfunction" is read; or **time compression** until "Spekkio" is read; prompt on **warping**; prompt on **teleportation**]

104-12-36-09108

9. German uses only one auxiliary for this tense, werden (“VER-den”). In Italian, it is formed by changing the infinitive ending of verbs from -are (“ARE-ey”) into -er (“AIR”). In French, *si* clauses can be used to attain this tense, which is also made by adding -re (“REH”) to infinitives. In Spanish, *ir* (“ear-ah”) and an infinitive can be used to speak in this tense. For 10 points, identify this tense that in English is expressed by “will” and indicated something that has not yet occurred.

ANSWER: **future** tense

146-12-36-09109

10. One of these elements emits a light whose wavelength is used to define the meter. Ununocium doesn’t behave like one of these elements, but ununquadium does. Potassium-40 decays to the forty isotope of one of these elements. Their full valence shells cause them to be generally non-reactive. For 10 points, name this group of elements including argon, xenon, and neon, found on the far right end of the periodic table.

ANSWER: **noble gases** [or **group 18** elements; or **group VIIIA** elements (group eight A elements); prompt on **inert gases**]

132-12-36-09110

11. This author wrote a work in which the American and Jig wait for a train and discuss an abortion. This author who created Nick Adams and wrote “Hills Like White Elephants” also wrote a work following a Joe DiMaggio-loving fisherman named Santiago. Another of his novels features Catherine Barkley and ambulance driver Frederic Henry during World War I. For 10 points, name this American expatriate author of *The Old Man and the Sea* and *A Farewell to Arms*.

ANSWER: Ernest Miller **Hemingway**

141-12-36-09111

12. This man being accused of mutiny delayed his appointment to a council headed by Edward-Maria Wingfield. Later, as leader, this man instituted a policy of "he who does not work, does not eat." This man wrote a *Generall Historie* of Virginia and New England that included a description of a possibly apocryphal near-death experience with a local Indian tribe called the Powhatan. For 10 points, name this explorer and leader of Jamestown whose life may once have been saved by Pocahontas.

ANSWER: John **Smith**

023-12-36-09112

13. These geological periods are characterized by a higher than normal ratio of oxygen-18 to oxygen-16 in ocean sediments. Variations in the Earth's movements that lead to a decrease in insolation were once theorized to cause these periods, and those variations are Milankovitch cycles. We are still in the Pleistocene one, and a "Little" one lasted from 1500 to 1850 AD. For 10 points, name these periods of time characterized by glaciers marching forward and a reduction in global temperatures.

ANSWER: **ice age** [or **glacial age** or **glacial period**]

066-12-36-09113

14. This author wrote a novel in which Guitar Bains joins the group Seven Days and hunts down the protagonist after believing he broke a deal. That protagonist, who goes to Shalimar to learn about his great-grandfather, is named Milkman Dead. In another novel by this writer, Denver and Sethe are haunted by the ghost of Sethe's child, whose tombstone was marked with the title word. For 10 points, name the female African-American author of *Song of Solomon* and *Beloved*.

ANSWER: Toni **Morrison** [or Chloe Anthony **Wofford**]

140-12-36-09114

15. In Welsh mythology, Goronwy (go-RON-wee) falls in love with a woman named Blodeuwedd (BLAH-du-wed) who is made out of these objects. New varieties of these are created after Apollo's discus accident and when another figure drowns after rejecting Echo because he is in love with his own reflection. For 10 points, name these plants, among which are the hyacinth and the narcissus.

ANSWER: **flowers**

142-12-36-09115



1A. Name the 2001 film in which Russell Crowe plays mathematician John Nash.

ANSWER: A ***Beautiful Mind***

1B. What nation led by troubled Prime Minister Naoto Kan (NAH-oh-toe KAHN) has been struggling since March to deal with the potential nuclear disaster at Fukushima?

ANSWER: **Japan** [or **Nippon** or **Nihon**]

2A. This is a 10-second calculation question. What is the original price of a dress that is found on a 40% off clearance rack with a new price of \$75?

ANSWER: **\$125**

2B. This is a 10-second calculation question. Find the area of an equilateral triangle with side length 4.

ANSWER: **4 root 3** [or **4 times the square root of 3**; or **4 radical 3**; prompt on **root 48**; prompt on **radical 48**]

3A. What term is applied in graph theory to an edge which connects a vertex to itself and also to a portion of a kidney named for F.G.J. Henle (HEN-lee)?

ANSWER: **loop**

3B. What European nation underwent the Carnation Revolution, which saw longtime dictator Antonio Salazar removed from power?

ANSWER: **Portugal** [or **Portuguese Republic**; or **Republica Portuguesa**]

4A. What two-faced Roman god was the god of beginnings, gates, and doorways?

ANSWER: **Janus** [or **Ianus** (YAN-us)]

4B. Name the American river which forms the northern borders of Kentucky and West Virginia.

ANSWER: **Ohio** River

5A. This is a 20-second calculation question. Find the mean of the following set: 39, 24, 17, 40, 15.

ANSWER: **27**

5B. This is a 20-second calculation question. The Orioles and Nationals are playing a three-game series, where each team has a 50% chance of winning each game. Find the probability that the Nationals win exactly two of the three games.

ANSWER: **3/8** or **0.375**

6A. Name the African nation once ruled by Mobutu Sese Seko while it was known as Zaire.

ANSWER: **Democratic Republic of the Congo** [or **DRC**; or **Republique Democratique du Congo**; or **RDC**; prompt on **Congo**; do not accept or prompt on "Republic of the Congo"]

6B. What city's Kremlin overlooks such landmarks as St. Basil's Cathedral in Red Square?

ANSWER: **Moscow**

7A. Identify the rhetorical device in which a statement is exaggerated beyond the literal sense, such as in the statement "I could eat a whale."

ANSWER: **hyperbole**

7B. Name the quantity measured in poise (PWAHS) that is the measure of a fluid's resistance to flow.
ANSWER: **viscosity** [accept word forms]

8A. Which American pop artist created silkscreen paintings of Marilyn Monroe and Campbell's soup cans?

ANSWER: Andy **Warhol** [or Andrew **Warhola**, Jr.]

8B. Name the Nobel-prize winning female chemist from Poland who discovered radium.

ANSWER: Marie **Curie**

9A. In 2008, this man hit a grand slam one week after throwing an "immaculate inning." Name this Seattle Mariners pitcher, the 2010 AL Cy Young winner.

ANSWER: Felix Abraham **Hernandez** [prompt on **King Felix**]

9B. Name the Danish author of such children's stories as "The Little Mermaid," "The Steadfast Tin Soldier," and "The Ugly Duckling."

ANSWER: Hans Christian **Andersen**

10A. This is a 30-second calculation question. What is the tenth term in the sequence starting 1, 4, 5, 9, 14, 23?

ANSWER: **157**

10B. This is a 30-second calculation question. What is the units digit of two thousand twelve to the two thousand twelfth power?

ANSWER: **6**



1. One function that cannot be expressed without using this technique is the Ackermann function. This technique is used to divide a list in half repeatedly in a binary search. This method can also be used to solve the Towers of Hanoi problem and to find elements of the Fibonacci sequence. For 10 points, identify this programming technique contrasted with iteration, the act of a function calling itself.

ANSWER: recursion [accept word forms]

126-12-36-09117

2. Characters created by this author include literature professor David Kepesh and writer Nathan Zuckerman, who appears in *Exit Ghost*, *The Human Stain*, and *American Pastoral*. Another of his novels is presented as a continuous monologue given to the psychoanalyst Dr. Spielvogel by a character who describes his lovers nicknamed "The Pumpkin," "The Pilgrim," and "The Monkey." For 10 points, name this Jewish-American novelist of *Portnoy's Complaint*.

ANSWER: Philip Milton Roth

014-12-36-09118

3. One theory of these materials accounts for their isotope effect and the size of the energy gap at the transition temperature. Materials with this property are strongly diamagnetic and expel magnetic fields; that phenomenon is the Meissner effect. Electrons in these materials form Cooper pairs, which are important in the BCS theory of them. For 10 points, name this phenomenon that occurs below a critical temperature in which a material loses all electrical resistance.

ANSWER: superconductivity

142-12-36-09119

4. In one song from this work, a girl wonders how all of her friend's cousins can fit into a Buick for which there is no road to drive on. The second act sees Anybodys fall in love with Action and several boys singing "Gee, Officer Krupke." A switchblade rumble in this musical results in the death of Bernardo. "I Feel Pretty" celebrates the love of the main characters Tony and Maria. For 10 points, name this musical about the Jets and the Sharks, a work of Leonard Bernstein and Stephen Sondheim based on *Romeo and Juliet*

ANSWER: West Side Story

020-12-36-09120

5. The energy of this process can be determined from a Kurie plot, and Wu showed that this process violates CP symmetry. One form of this weak-force-mediated phenomenon decreases the atomic number by one. That form is similar to electron capture. Free neutrons undergo this process with a half-life of about 10.3 minutes, splitting into a proton, an antineutrino, and an electron, this process's namesake particle. For 10 points, name this type of radioactive decay contrasted with gamma and alpha.

ANSWER: beta decay

142-12-36-09121

6. This poet described a ship whose deck “No more shall feel the victor’s tread, or know the conquered knee” in a poem beginning “Ay, tear her tattered ensign down!” This poet of “Old Ironsides” also declared “Build thee more stately mansions, O my soul” in a poem about a “ship of pearl, which, poets feign, sail the unshadowed main.” For 10 points, name this American poet of “The Chambered Nautilus,” the father of a Supreme Court Justice with the same name.

ANSWER: Oliver Wendell **Holmes**, Sr.

014-12-36-09122

7. ?Students of this man's system of thought begin by reading the Four Books and then proceed to the Five Classics, which include the *Spring and Autumn Annals* and the *Classic of Changes*. In life, the highest post he achieved was justice minister for the King of Lu, but his students such as Mengzi spread his philosophy of the “rectification of names” and “five relationships” after his death. For 10 points, name this sixth-century BCE philosopher whose ideas came to dominate Chinese society.

ANSWER: **Confucius** [or **Kongfuzi**; or **Kongzi**; or **K’ung-fu-tzu**; or **K’ung-tzu**; or **Kongqiu** (kon-chi); or **Zhongni**]

019-12-36-09123

8. This company was involved in a court case versus Tasini that concerned posting materials to electronic databases. It was also involved in a case versus Sullivan that said 'actual malice' had to be present in libel against public officials. A third case involving this company protected its rights, against Richard Nixon’s objections, to publish the Pentagon Papers. For 10 points, name this newspaper controlled by the Ochs family that is based out of the same city as *The Wall Street Journal*.

ANSWER: *The **New York Times***

040-12-36-09124

9. In this work, the protagonist’s uncle recalls how he has outlived twenty-two of his children after explaining to the protagonist the significance of the name Nneka. The protagonist is exiled after a fatal accident when his gun goes off at a funeral, and earlier, he kills his foster-son Ikemefuna to avoid appearing weak like his father. Set in Umuofia, this novel ends after Okonkwo hangs himself. For 10 points, name this novel by Chinua Achebe.

ANSWER: ***Things Fall Apart***

014-12-36-09125

10. In one scene directed by this man, the camera tracks down from a balcony in a mansion and into a closeup of a key in Ingrid Bergman's hand. Another film from this director of *Notorious* sees Cary Grant's character pursued across the U.S. and to the top of Mount Rushmore. In another of his films, staccato violins accompany a scene in which Norman Bates stabs Marion Crane to death in a shower. For 10 points, name this filmmaker who directed *North by Northwest* and *Psycho*.

ANSWER: Alfred Joseph **Hitchcock**

088-12-36-09126

11. This class contain the most basal animals besides lungfish to have a double circulatory system. Because their buccally-ventilated lungs are relatively inefficient, their skin must remain moist for respiration. They including the snake-like caecilians (suh-SILL-yuns), and their young typically transform from a water-breathing juvenile form to an air-breathing terrestrial form. 10 points, identify this class which includes all non-amniotic four-legged vertebrates, such as salamanders and frogs.

ANSWER: **amphibians** [or **Amphibia**]

133-12-36-09127

12. In May of 2011, this man led a panel with six congressmen that sought a bipartisan solution on the national debt. A microphone picked up this man saying that the Patient Protection and Affordable Care Act was a "big effing deal." He is seated in the leftmost position of the iconic Situation Room photo from the night of Osama bin Laden's death. For 10 points, name this former Delaware senator and current Vice President of the United States.

ANSWER: Joseph Robinette **Biden**, Jr.

127-12-36-09128

13. One side in this war won a number of victories thanks to the commands of the Count of Tilly and Albrecht von Wallenstein (VAHL-uhn-shtahyn). Another commander in this war died at the Battle of Lutzen and was the Swedish king Gustavus Adolphus. One cause of this war was the lack of recognition for Calvinism in the Peace of Augsburg. For 10 points, name this war ended in 1648 by the Peace of Westphalia that improved religious toleration in the Holy Roman Empire.

ANSWER: **Thirty Years'** War

023-12-36-09129

14. One part of this general process uses the molecule plastoquinone while another part uses the enzyme Rubisco. In CAM organisms, one part of this process occurs during night. Part of this process occurs in stacks called granum which are composed of individual thylakoids. One of the main parts of this process is the Calvin cycle, and this process converts carbon dioxide and water into sugar. For 10 points, name this plant process which uses sunlight to produce food and occurs in the chloroplast.

ANSWER: **photosynthesis** (prompt on **light dependent reaction** or **light reaction** before Rubisco is mentioned)

064-12-36-09130

15. The protagonist of this novel presents his love interest with a bird named "little Tommy" which he stole from a nest and trained to sing. He is later aided in sending love letters by the gamekeeper Black George and is banished due to the accusations of Master Blifil. In the end, the protagonist is able to marry Sophia Western and is made the heir of his foster father Squire Allworthy. For 10 points, name this novel about the title foundling by Henry Fielding.

ANSWER: **Tom Jones**

014-12-36-09131



1. One type of this process finds the point when the zeta potential is zero. The curve graphing the results of this process may have two inflection points when a diprotic compound is involved. The end of this process is often indicated by a color-changing indicator such as phenolphthalein (FEE-nulf-THAY-leen) and is called the equivalence point. For 10 points, name this lab technique in which a reagent is added to an analyte to determine the analyte's concentration.

ANSWER: **titration** [or **volumetric analysis**]

132-12-36-09132

2. This poet satirized the Shakespearean scholar Tibbald and rival poet Colley Cibber in different editions of a work featuring the goddess Dulness. He coined the phrase "A little learning is a dangerous thing" in his *An Essay on Criticism*, and invisible sylphs fail prevent the Baron's scissors from clipping Belinda's hair in another of his poems. For 10 points, name this English poet who wrote *The Dunciad* and *The Rape of the Lock*.

ANSWER: Alexander **Pope**

014-12-36-09133

3. In one work by this economist, it is shown that new spending becomes new income due to the multiplier effect. This economist also explains how transactional, precautionary, and speculative motives support the liquidity preference theory. In that same work, he advocates that, during recessions, governments should adopt a policy of full employment. For 10 points, name this English economist who wrote *The General Theory of Employment, Interest and Money*.

ANSWER: John Maynard **Keynes**

130-12-36-09134

4. This man's only surrender occurred at the makeshift Fort Mifflin. This leader's troops were trained by a 'model company,' which itself was trained by Baron von Steuben (SHTOY-bin). In one battle, this man surprised the troops of Johann Rall the day after Christmas in Trenton by making a surprising crossing of the Delaware River. For 10 points, name this leader who forced the surrender of Cornwallis at the Siege of Yorktown and later served as the first President.

ANSWER: George **Washington**

066-12-36-09135

5. The gamma function extends this function to positive reals, and for large values of n , Stirling's formula provides an approximation for it. In a Taylor series, this function of n is in the denominator of the n th term. The total number of permutations possible out of n objects is this function. For 10 points, name this function that for a whole number n equals n multiplied by all the positive integers before it, usually represented with an exclamation mark.

ANSWER: **factorial** function

121-12-36-09136