



1. **This deity won a contest by chewing up her brother's sword and producing more children than her necklace had, and this deity sent her grandson Ninigi (nee-NEE-ghee) to earth to plant crops. This goddess's sacred shrine is at Ise (EE-seh), and her sacred mirror is part of her country's imperial regalia. This goddess's brother threw a horse at and killed her handmaiden, making her (*) hide in a cave and causing darkness to cover the land. For 10 points, identify this Japanese sun goddess.**

ANSWER: Amaterasu

126-12-53-11102

2. **Along with Frederick Soddy, this man showed that radioactive elements would spontaneously eject pieces of atoms. He later created hydrogen by firing alpha particles at nitrogen gas, but is better known for suggesting to Ernest Marsden and Hans Geiger that they fire (*) alpha particles at other elements. Those experiments helped this man formulate a model of the atom superseded by the Bohr Model. For 10 points, name this physicist whose "gold foil experiment" showed the existence of the atomic nucleus.**

ANSWER: Ernest Rutherford

003-12-53-11103

3. **One of this author's poems describes a woman whose "hyacinth hair" and "classic face" bring the speaker back to "the glory that was Greece and the grandeur that was Rome." Another of his poems describes a "wilderness of glass" and opens by proclaiming that "Death has reared himself a throne in a strange city lying alone." This writer of "To Helen" and "The (*) City in the Sea" also wrote a poem about a woman was shut up in a sepulcher after her death in a "kingdom by the sea." For 10 points, name this poet of "Annabel Lee," an American writer of such short stories as "The Fall of the House of Usher."**

ANSWER: Edgar Allan Poe

040-12-53-11104

4. **This man designed a trapezoidal addition for the National Gallery and the John F. Kennedy Presidential library. A scale model of the entire neighborhood was built in a wind tunnel to reveal why a building designed by this man's firm kept losing its windows. One building designed by this man slopes upwards to a tower on the shore of (*) Lake Erie. For 10 points, name this architect of the Rock and Roll Hall of Fame who also designed the glass pyramid at the Louvre.**

ANSWER: Ieoh Ming Pei

002-12-53-11105

5. **In one work by this author, the protagonist finds a piece of paper unmarked "except for an enormous note of interrogation" in the title location. That woman created by this author marries George Emerson after a brief engagement with Cecil and is named Lucy Honeychurch. In another work by this man, Adela (*) Quested accuses Dr. Aziz of attacking her in the Marabar Caves, where she hoped she would see the "real India." For 10 points, name this British author of *A Room with a View* and *A Passage to India*.**

ANSWER: Edward Morgan Forster

121-12-53-11106

6. In one work, this artist depicted his sister Inger as an adult woman in a painting of a scene from his adolescence. That scene, the death of his sister Sophie from tuberculosis, was the focus of *Death in the Sickroom*. A vision of "flaming clouds" inspired a painting he claimed "could only have been painted by a madman." That painting's background contains two figures on a bridge while, in the foreground, a man (*) clutches his distorted head. For 10 points, name this Norwegian artist of *The Scream*.

ANSWER: Edvard Munch

003-12-53-11107

7. Before becoming Chief Justice, this was the position held by Earl Warren. After failing to win this position in 1962, Richard Nixon said "You won't have Nixon to kick around anymore." The current holder of this position also held it from 1975 to 1983 after succeeding Ronald Reagan. In 2003, a recall campaign drove out (*) Gray Davis from this position. For 10 points, identify this position currently held by Jerry Brown, who succeeded Arnold Schwarzenegger.

ANSWER: Governor of California

052-12-53-11108

8. When these particles get too close to one another, they cause a type of repulsion called shielding. Transitions metals are said to have a sea of these particles. They were discovered in 1897 as the result of experiment with cathode ray tubes conducted by J. J. Thomson who called them corpuscles. They make up less than one percent of the mass of atoms, and can be found in s, p, d, and f (*) orbitals. For 10 points, name these subatomic particles responsible for negative charge.

ANSWER: electrons

147-12-53-11109

9. This man received a limp and no reward from his patron when he fought in a siege of Azamor in Morocco. After switching allegiance to a new country, this explorer prepared to set out on a voyage with Rui Faleiro. That voyage ended for this man when he was (*) killed by Lapulapu, a chief on Mactan Island in the Philippines. For 10 points, name this Portuguese explorer whose ship the *Victoria* continued without him to complete the first circumnavigation of the Earth.

ANSWER: Ferdinand Magellan [or Fernao de Magelhaes; or Fernando de Magallanes]

023-12-53-11110

10. In 1984, a ship called the *Jupiter* crashed into a bridge over this body of water, which at one point was the site of a structure called the "Nonsuch House." The 1858 "Great Stink" was due to massive amounts of human waste being dumped into this body of water. The southern part of this river contains Teddington Lock. Islands on this river include Thorney Island and (*) Magna Carta Island, with the former being the site of Westminster Abbey. For 10 points, name this river which flows through central London, the longest river entirely in England.

ANSWER: the River Thames (temz)

052-12-53-11111

11. This piece employs a constant right hand tremolo in the B-minor section "Cum mortuis in lingua mortua" (koom "MORE"-too-ees in LING-gwa "MORE"-too-a). That section reworks a recurring 11/4 ("eleven-four") theme that appears in this piece's interludes. Other movements depict children playing in the Tuileries (TWEE-le-reez) and Baba Yaga's hut on hen's legs. This piece's (*) "Promenade" theme appears for the final time in its last movement, "The Great Gate of Kiev." For 10 points, name this piano suite inspired by drawings by Viktor Hartmann and composed by Modest Mussorgsky.

ANSWER: Pictures at an Exhibition [or Kartinki s Vystavki]

014-12-53-11112

12. **One character in this play delivers the Queen Mab speech and insists that a wound is only a scratch. The prologue to this play includes the line "civil blood makes civil hands unclean" and states that the play takes place "in fair (*) Verona."** Characters in this play include Count Paris, who wishes to marry the female title character, and Tybalt, who kills Mercutio. For 10 points, identify this Shakespeare tragedy about two ill-fated Montague and Capulet lovers.

ANSWER: Romeo and Juliet

126-12-53-11113

13. **In a play by this man, the Old Man and Old Woman jump out a window before the deaf and mute Orator begins to speak. He also wrote a play in which the Smiths and the Martins are visited by The Fire Chief. This author of *The Chairs* created the recurring character (*) Berenger (ber-en-ZHAY), who refuses to "capitulate" in a play in which everyone else turns into the title creature.** For 10 points, name this author of *The Bald Soprano* and *Rhinoceros*, a French-Romanian absurdist playwright.

ANSWER: Eugene Ionesco [or Eugen Ionescu]

105-12-53-11114

14. **In January 2011, this country was the location of the "Friday of Anger" protests. Photos of the beaten corpse of Khaled Saeed helped lead to the revolution in this country. This country was the site of the release of political prisoner Abbud al-Zumar and saw 2011 (*) parliamentary elections dominated by the Al-Nour party of Salafists and the Muslim Brotherhood. That led to new protests in Tahrir Square.** For 10 points, name this African country where a revolution removed President Hosni Mubarak from office in 2011.

ANSWER: Egypt

088-12-53-11115

15. **This man's doctoral thesis was on the nerves of the heart, one of his contributions to the study of the reflex regulation of the circulatory system. His experiments on the digestive system won him the 1904 Nobel Prize in Physiology or Medicine. This man studied the "psychic secretions" of certain (*) animals, though he used electric shocks and metronomes, not bells.** For 10 points, name this man who used classical conditioning to train dogs to salivate in response to external stimuli.

ANSWER: Ivan Petrovich Pavlov

132-12-53-11116

16. **This king's support of Lord Bute as Prime Minister was derided by John Wilkes. This king was nearly assassinated in the Drury Lane Theatre. This ruler battled with his minister William Pitt over Catholic Emancipation. His other ministers included William Grenville and Lord North, who gave up many of his (*) colonies with the Treaty of Paris.** For 10 points, name this long-reigning English king known for his madness and for losing the American Revolution.

ANSWER: George III of England [or George William Frederick; or Georg Wilhelm Friedrich; prompt on George]

015-12-53-11117

17. **This phase begins when securin (seh-CURE-in) is destroyed, allowing separase (SEH-pah-raise) to cleave cohesins (coh-HEE-sins). During this phase, kinetochore (kih-NEH-toh-kore) fibers shorten. Unipolar kinesins (KIE-neh-sins), bipolar kinesins, and dyenins (DIE-eh-nins) push microtubules apart during this phase, which occurs after the creation of the (*) spindle. This phase causes sister chromatids to separate.** For 10 points, identify this phase of mitosis in which chromosomes split apart and move towards opposite poles, coming just before telophase and after metaphase.

ANSWER: anaphase

048-12-53-11118

18. This Chief Justice helped uphold Miranda rights in *Dickerson v. U.S.* He presided over *Lawrence v. Texas*, which dealt with anti-sodomy laws. This Chief Justice wrote one of the dissenting opinions in *Texas v. Johnson*, in which he argued that flag burning was not protected under the First Amendment. This man originally joined the court as an associate in (*) 1971 before becoming Chief Justice under Reagan. For 10 points, name this Chief Justice who was succeeded by John Roberts.
ANSWER: William Hubbs Rehnquist [or William Donald Rehnquist]

127-12-53-11119

19. This term refers to a sieve with running time of $L_n(1/2,1)$ ["ell sub n of one half comma 1"]. Gauss proved a theorem about this type of reciprocity (reh-sih-PRAH-sih-tee) for modular arithmetic. Functions of this type produce a shape in which all points are equidistant from the directrix and focus. The derivative of this type of function is linear. The roots of this type of equation are given by a formula including a (*) discriminant of b^2-4ac ["b squared minus four a c"]. For 10 points, name this term referring to polynomials of degree two.

ANSWER: quadratic

127-12-53-11120

20. In one work, this man claims that value systems based on safety are "herd morality." This philosopher believed that an individual's situation in the present world could be judged by using the doctrine of eternal recurrence. One idea of this philosopher was that all living things have a fundamental drive that is their (*) "will to power." This philosopher envisioned a superior being in *Thus Spake Zarathustra* called the übermensch. For 10 points, name this German philosopher often associated with nihilism who claimed in one work that "God is dead."

ANSWER: Friedrich Nietzsche

023-12-53-11121

21. This man ran a newspaper that encouraged Charles Albert to adopt a liberal constitution. He pushed for the "connubio" policy as Minister of Finance in the cabinet of Massimo d'Azeglio. At Plombieres, he convinced Napoleon III to go to war with Austria. That war ended with the acquisition of Lombardy and started revolutionary actions leading to more power for (*) Victor Emmanuel II. For 10 points, name this sometime ally of Giuseppe Garibaldi and first prime minister of a unified Italy.

ANSWER: Count di Cavour [or Camillo Benso]

121-12-53-11122

22. This poet wrote, "Farewell, dear mother, Parliament, prevail" in one poem. In another poem, she wrote, "Thy love is such I can no way repay." "A Dialogue between Old England and New" is included in a collection by this poet also containing a poem concluding that her "hope and treasure lie above" after the title event. This poet of "Verses upon the (*) Burning of Our House" wrote the collection *The Tenth Muse Lately Sprung Up in America*. For 10 points, name this colonial American poet who wrote "To My Dear and Loving Husband."

ANSWER: Anne Bradstreet

124-12-53-11123

23. These cells contain both alpha and dense granules, and they are activated by ADP and inhibited by NO and PGI₂. COX-2 inhibitors prevent the activation of these cells, which are created after the fragmentation of a megakaryocyte (meh-gah-KAH-ree-oh-site). These cells are found in the buffy coat of a centrifuged sample. Proteins like von Willebrand (VILL-uh-brawnd) factor and Factor VIII aid in the activation of these cells, which form a (*) plug at the site of a wound. For 10 points, identify these small cell fragments important for blood clotting.

ANSWER: platelets

048-12-53-11124



1. For 10 points each, name these Russian composers.

[10] This composer of *The Love for Three Oranges* also introduced children to the instruments of the orchestra with *Peter and the Wolf*.

ANSWER: Sergei Sergeyevich **Prokofiev**

[10] This composer's seventh symphony is called *Leningrad*, while his thirteenth includes a male choir and is called *Babi Yar*.

ANSWER: Dmitri Dmitriyevich **Shostakovich**

[10] This member of The Mighty Handful composed *In the Steppes of Central Asia* and the opera *Prince Igor*.

ANSWER: Alexander Porfiriyevich **Borodin**

088-12-53-11201

2. This man, along with Andrew Moray, led the Scottish troops at the Battle of Stirling Bridge. For 10 points each:

[10] Name this man who fought for John Balliol. This man killed William de Heselrigh and raided Scone with William the Hardy.

ANSWER: William **Wallace**

[10] William Wallace lost to this King at the Battle of Falkirk. This king executed John Balliol and defeated Simon de Montfort, who started the Second Barons' War against this king's father Henry III, at the battle of Evesham. This king also expelled the Jews from England.

ANSWER: **Edward I** of England [or **Edward Longshanks**; prompt on **Edward**]

[10] Edward I's son, Edward II, was defeated by Robert the Bruce at this battle at the end of the War of Scottish Independence. During this battle, Robert the Bruce defeated Humphrey de Bohun and Marmaduke Tweng was killed.

ANSWER: Battle of **Bannockburn**

149-12-53-11202

3. The opening of this poem asks, "What mighty contests rise from trivial things?" For 10 points each:

[10] Name this mock epic whose characters include Belinda, Umbriel, and Ariel.

ANSWER: "The **Rape of the Lock**"

[10] "The Rape of the Lock" was a work by this English poet whose other works include *An Essay on Criticism* and *An Essay on Man*.

ANSWER: Alexander **Pope**

[10] Pope frequently used this type of end-stopped couplet written in iambic pentameter.

ANSWER: **heroic** couplet

064-12-53-11203

4. On the left of this painting, a boatman is smoking his pipe and sitting next to a woman and man of higher social class. For 10 points each:

[10] Name this late-19th century painting, which depicts a woman holding a monkey on a leash and lots of other people hanging out near the water on a day of rest.

ANSWER: *Sunday Afternoon on the Island of La Grand Jatte* [or *Un Dimanche Apres-Midi a l'Ile de La Grand Jatte*]

[10] This artist devised the technique of pointillism, which he used in paintings like *Sunday Afternoon on the Island of La Grand Jatte* and *Bathers at Asnieres* (ah-nee-AIR).

ANSWER: Georges Seurat

[10] Another pointillist, Paul Signac (sin-YAK), depicted the anarchist Felix Feneon holding one of these objects, which Georgia O'Keefe painted to resemble female genitalia.

ANSWER: flowers

141-12-53-11204

5. Florence Nightingale became known as the "Lady with the Lamp" for her nursing efforts during this war. For 10 points each:

[10] Name this 1853 to 1856 war fought between Russia and an alliance of France, the UK, and the Ottoman Empire.

ANSWER: Crimean War

[10] In a famous moment from the Crimean War, British miscommunications caused Lord Cardigan to lead a disastrous charge of this cavalry unit during the Battle of Balaclava.

ANSWER: Light Brigade

[10] Russian defeat was sealed by the surrender of this Russian city in September of 1865 after a yearlong siege.

ANSWER: Sevastopol

015-12-53-11205

6. Arrow and Pratt attempted to measure aversion to it. For 10 points each:

[10] Name this economic concept that refers to what an investor may stand to gain or lose.

ANSWER: risk

[10] If an individual is risk-averse, the slope of this quantity will be concave down. Rational people try to maximize this measure of satisfaction.

ANSWER: utility

[10] These graphical constructs show the point at which a customer has no preference for one bundle of goods over another, that is to say that utility is the same for both bundles.

ANSWER: indifference curves

079-12-53-11206

7. The slow step in a reaction determines this quantity. For 10 points each:

[10] Name this quantity, the study of which forms the basis of kinetics, that describes the speed of a reaction.

ANSWER: reaction rate

[10] At this time point, the concentration of a reactant in a reaction is 50% of its original concentration.

ANSWER: half-life

[10] In this kind of a reaction, the inverse of a reactant's concentration can be plotted linearly against time to find the rate constant.

ANSWER: second-order reaction

020-12-53-11207

8. This novel was inspired by the story of the sailor Alexander Selkirk. For 10 points each:

[10] Name this Daniel Defoe novel about a shipwrecked sailor who must live on a deserted island for twenty-eight years.

ANSWER: **Robinson Crusoe**

[10] Crusoe befriends this native, whom he saves from being eaten by other cannibals. He converts to Christianity, but when he asks Crusoe why God does not just kill Satan, Crusoe is rather flummoxed.

ANSWER: Man **Friday**

[10] In this Defoe novel, the title character marries five different men, including her own half-brother, before repenting and prospering as a plantation owner in Virginia.

ANSWER: *The Fortunes and Misfortunes of the Famous* **Moll Flanders**

080-12-53-11208

9. This king of Lydia was granted his most notable ability by Dionysus, but quickly prayed for its removal after it prevented him from eating food. For 10 points each:

[10] Name this king who was able to wash away the ability to turn everything he touched to gold.

ANSWER: King **Midas**

[10] Having irked Apollo, Midas was given donkey ears for judging a music contest in favor of this reedpipe-blowing, goat-legged god of the wild.

ANSWER: **Pan** [or **Faunus**]

[10] The Muses judged another music contest between Apollo and this satyr, which ended badly when Apollo flayed him alive.

ANSWER: **Marsyas**

104-12-53-11209

10. In the lower region of this atmosphere, temperature climbs sharply. For 10 points each:

[10] Name this largest layer of the Earth's atmosphere

ANSWER: **thermosphere**

[10] This layer of the atmosphere lies below the thermosphere. Its boundary with the thermosphere is the coldest place on Earth.

ANSWER: **mesosphere**

[10] Below the thermosphere is this boundary layer, below which turbulent mixing dominates.

ANSWER: **turbopause**

130-12-53-11210

11. This organization controlled the Steelyard in London. For 10 points each:

[10] Name this alliance of trading cities along the Baltic and upper North Sea coast that dominated maritime trade in that area during the Middle Ages.

ANSWER: **Hanseatic League** [or **Hansa**]

[10] The capital of the Hanseatic League was at this city in Schleswig-Holstein, which was burnt and later rebuilt by Henry the Lion in 1157.

ANSWER: **Lübeck**

[10] Many cities in the Hanseatic League belonged to this order of knights founded during the Crusades. They lost much of their power following their defeat to the Poles and Lithuanians at the 1410 Battle of Tannenberg.

ANSWER: **Teutonic Knights** [or **Order of Brothers of the German House of Saint Mary in Jerusalem**; or **Deutscher Orden**]

141-12-53-11211

12. In *The Human Stain*, this character's neighbor, Professor Coleman Silk, discovers his own blackness. For 10 points each:

[10] Name this recurring character who travels to his high school reunion in *American Pastoral*. There, he learns that "Swede" Levov's daughter detonated a bomb in a Vietnam protest.

ANSWER: **Nathan Zuckerman** [or Nathan **Zuckerman**]

[10] This Jewish-American author created Nathan Zuckerman and wrote the novella *Goodbye, Columbus* and the novel *Portnoy's Complaint*.

ANSWER: Philip Milton **Roth**

[10] Portnoy refers to his girlfriend Mary Jane Reed as one of these animals. Literary examples of this animal include Curious George.

ANSWER: **monkey**

079-12-53-11212

13. This president served as Chief Justice from 1921 to 1930, making him the only former President to lead another branch of government. For 10 points each:

[10] Name this successor to Theodore Roosevelt, who was defeated by Woodrow Wilson in the 1912 presidential election.

ANSWER: William Howard **Taft**

[10] Taft repeatedly intervened in Latin America to protect American financial interests in a policy given this name.

ANSWER: **dollar diplomacy**

[10] One component of dollar diplomacy was support for the 1909 overthrow of Jose Santos Zelaya in favor of Adolfo Diaz in this Central American country.

ANSWER: Republic of **Nicaragua** [or Republica de **Nicaragua**]

132-12-53-11213

14. This man's namesake corridor connects the Uffizi with the Palazzo Pitti. For 10 points each:

[10] Identify this Italian renaissance architect and art historian, whose *The Lives of the Artists* is often called the first work of art history.

ANSWER: Giorgio **Vasari**

[10] The final section of Vasari's *Lives* contains a notable of this man, whose most notable works include the Ceiling of the Sistine Chapel.

ANSWER: **Michelangelo** de Ludovico Buonarroti Simoni

[10] Another figure discussed in the *Lives* is this inventor of linear perspective and designer of the dome of the Florence Cathedral.

ANSWER: Filippo **Brunelleschi**

048-12-53-11214

15. In September, this artist released the song "It Will Rain," which was on the soundtrack of the most recent *Twilight* movie. For 10 points each:

[10] Name this Hawaiian singer and songwriter behind "Just the Way You Are."

ANSWER: Bruno **Mars**

[10] In this song, Mars promises he'd "throw [his] hand on a blade" and "jump in front of a train" for the addressee, but claims that she "won't do the same."

ANSWER: "**Grenade**"

[10] In this number one hit from early 2011, Mars sings "today I don't feel like doing anything / I just want to lay in my bed."

ANSWER: "The **Lazy Song**"

080-12-53-11215

16. This law does not take into account the residual entropy that exists in most objects. For 10 points each:
[10] Name this law of thermodynamics which states that the entropy of a perfect crystal is zero at absolute zero.

ANSWER: **third** law of thermodynamics

[10] The third law of thermodynamics is sometimes named for this German scientist who developed a law giving the electrochemical potential of a half cell.

ANSWER: Walter **Nernst**

[10] The third law of thermodynamics holds because at absolute zero a crystal exists in this lowest energy state.

ANSWER: **ground** state

064-12-53-11216

17. When this character visits home on temporary leave, he finds that his mother is dying and that he no longer understands the poetry he wrote before he left for the war. For 10 points each:

[10] Name this German soldier who kills a French printer with a bayonet and is himself shot during World War I in a 1928 novel.

ANSWER: **Paul** Baumer [or Paul **Baumer**]

[10] Paul Baumer is the protagonist of this novel by Erich Maria Remarque.

ANSWER: ***All Quiet on the Western Front*** [or ***Im Westen nichts Neues***]

[10] Paul is mentored by this soldier, who used to be a cobbler. He has a great ability to scavenge food and dies while Paul is carrying him back to camp.

ANSWER: Stanislaus **Katczinsky** [or **Stanislaus** Katczinsky]

015-12-53-11217

18. They can be classified based on their vein structure and how many are formed from the same location. For 10 points each:

[10] Name this part of a vascular plant, which are often needle-shaped in conifers and which in angiosperms change color during autumn.

ANSWER: **leaves** [or **leaf**]

[10] The bottoms of leaves contain these openings, which are surrounded by guard cells and allow the intake of carbon dioxide.

ANSWER: **stomata**

[10] This section of the leaf is situated between the upper and lower epidermis and contains palisade and spongy cells, which are both chlorenchyma (klor-EN-kih-muh).

ANSWER: **mesophyll**

140-12-53-11218

19. Eddie Carbone reports Marco for being an illegal immigrant in this author's *A View From the Bridge*. For 10 points each:

[10] Name this American playwright who described the downfall of Willy Loman in *Death of a Salesman*.

ANSWER: Arthur Asher **Miller**

[10] This Arthur Miller play concerns Joe Keller, who caused the deaths of twenty-one people including his child Larry by selling faulty cylinder heads to the Air Force.

ANSWER: ***All My Sons***

[10] In this Arthur Miller play about the Salem witch trials, John Proctor is hanged for refusing to confess to witchcraft.

ANSWER: *The **Crucible***

079-12-53-11219

20. Its followers believe in the practice of ahimsa, non-violence to all living things. For 10 points each:

[10] Name this Indian religion.

ANSWER: **Jainism**

[10] Jainists believe that injuring living things will cause one to accumulate karma and will thus keep one stuck in this cycle of rebirth.

ANSWER: **samsara**

[10] Jainism was promulgated by the twenty-four Tirthankaras, the last of whom was this man. He preached the taking of the five great vows and attained kevala, the highest stage of perception.

ANSWER: **Mahavira**

030-12-53-11220

21. Name the following contributors to the development of the atomic theory. For 10 points each:

[10] The modern theory of the atom is credited to this man whose evidence were the constant proportions of masses that different elements combined together to form compounds.

ANSWER: John **Dalton**

[10] The only British scientist involved in the Manhattan Project was this discoverer of the neutron who won the Nobel in Physics for it in 1935.

ANSWER: James **Chadwick**

[10] The wave nature of electrons was described by this Frenchman whose namesake relations show that his namesake wavelength of matter is inversely proportional to momentum and the frequency is directly proportional to kinetic energy.

ANSWER: Louis **de Broglie** (dee-BROY)

147-12-53-11221