

Toss-ups

1. This one-time presidential candidate claimed her policies would “stop the player hatin’ on the USA.” This singer released a self-named album in 2006 that featured songs like “Nothing in this World” and “Stars are Blind.” Deadmau5 [dead-mouse] threw a lot of shade at this DJ for making more money than him. She searched for a new BFF on a 2008 MTV series, and had earlier starred alongside Nicole Richie on *The Simple Life*. For 10 points, name this singer, actress, entertainer, and heiress whose great-grandad made a lot of money from owning hotels.
ANSWER: **Paris Hilton** [accept either]

2. A theorem this man names with Fermat states that if a and n are coprime positive integers, then a to the power of the value ϕ of n is congruent to 1 modulo n . ϕ in that equation represents his namesake totient function. This mathematician names a numerical method of solving differential equations improved upon by Runge and Kutta, and the Mobius strip has a value of zero for his namesake characteristic. He notably solved the seven bridges of Königsberg problem. For 10 points, name this Swiss mathematician who names the base of the natural log, the constant e .
ANSWER: Leonhard **Euler**

3. This thinker condemned hatred and resentment as “unsocial passions” in a chapter which discusses the “propriety of action.” In another work, this thinker’s definitions of the “real and nominal price of commodities” would later be critiqued by David Ricardo. This thinker’s best-known work discusses the importance of the division of labor by giving the example of a pin factory, and he proposed the idea of the “invisible hand.” For 10 points, name this Scottish economist, the author of *The Theory of Moral Sentiments* and *The Wealth of Nations*.
ANSWER: Adam **Smith**

4. In one of this playwright’s works, the ghost of Darius mocks his son’s bridging the Hellespont after being summoned by his wife Atossa. In another of his plays, a wife names her husband for the first time before declaring that his corpse is “the work of a just craftsman.” This author of *The Persians* described a trial in which Apollo declares that that wife was just “a vessel for seed” and Athena renames the “kindly ones” after acquitting Orestes of the murder of Clytemnestra. This man also wrote of Eteocles and Polynices killing each other in *Seven Against Thebes*. For 10 points, name this first of the three great Athenian tragedians, the author of the *Oresteia*.
ANSWER: **Aeschylus**

5. This character asks his best friend to kiss his forehead to see his inner unity and peace, and hypnotizes the lead samana with his gaze when the samana flies into a rage. The dream of a caged bird dying convinces this character to leave the decadence of the material world. This man becomes Kamaswami’s apprentice in order to learn the way of love from Kamala, who dies of a snakebite beside a certain river where this man met the ferryman Vasudeva. He is later visited by his friend Govinda, who had become a disciple of Gotama. For 10 points, name this title character of a work by Hermann Hesse.
ANSWER: **Siddhartha**

6. The demon Vritra suffered this fate by the *vajra* after he ousted Indra and took over *devalok*. This fate befell Salmoneus when he drove his chariot at full speed over a brass bridge and threw torches in the air to imitate a certain natural phenomenon, which the Olympians found impious. This happened to Roman king Tullus Hostilius after he bungled a ceremony to Jupiter Elicius under an oak tree. Asclepius suffered this fate because he raised Hippolytus from the dead. For 10 points, name this fate, brought by a weapon forged by Cyclopes, that befell the adversaries of Zeus.

ANSWER: getting **struck by lightning** [accept equivalents]

7. A namesake miracle from this country inspired the motto “love it or leave it” at the FIFA World Cup of that year. This country’s military dictatorship gained power after a war in which troops from this country were massacred at the Battle of Curupayty. This country’s last president during that dictatorship continued the *abertura* process begun by his predecessor. That president was João Figueiredo. In 1957, this country moved its capital following an urban planning contest organized by Juscelino Kubitschek. For 10 points, name this South American country whose largest cities are São Paulo and Rio de Janeiro.

ANSWER: Federative Republic of **Brazil** [accept “República Federativa do **Brasil**”]

8. Carnallite and sylvite are both salts of this element, which is used as a reductant in the Rieke method. This element, along with sodium and tartrate, is present in Rochelle’s salt, and atoms of it were used to make the first fermionic condensate. The chloride of this element is used to stop the heart in heart surgery, and along with sodium it is transported by a namesake pump. This element beta decays into argon, and its nitrate is used in fertilizers. For 10 points, name this element with atomic number 19 and symbol “K”, found in bananas.

ANSWER: **potassium** [accept “**K**” until read]

9. Rapid triplets and grace notes contrast several bars played “con dolore” in a section of this work that depicts Samuel Goldenberg and Schmuyle, the “Two Jews: Rich and Poor”. A repeating G-sharp in the bass underlies one melody in this work that represents a troubadour singing before “The Old Castle”. “The Ballet of Unhatched Chicks” and “The Hut on Fowl’s Legs” are sections of this work, some of whose movements are connected with a “Promenade” that eventually reaches “The Great Gate of Kiev”. For 10 points, name this piano suite inspired by Viktor Hartmann’s artwork and composed by Modest Mussorgsky.

ANSWER: **Pictures at an Exhibition** [accept “**Kartinki s vystavki**”]

10. In one of this author’s works, a character points out his short-lived mother in the family Bible before inking a curse against the lawyer who purchased the title location. That purchase forces the protagonist to leave Mr. Stelling’s school before she reads *The Imitation of Christ*. Another of this author’s protagonists fails to learn enough classics to finish her boring husband’s *The Key to All Mythologies*. Tom and Maggie Tulliver die in a flood in a novel by this author, who wrote of the hypocrite Bulstrode’s funding of Tertius Lydgate, the friend of Edward Casaubon’s widow Dorothea Brooke. For 10 points, name this author of *The Mill on the Floss* and *Middlemarch*.

ANSWER: **George Eliot** [accept “Mary Ann **Evans**”; prompt on “**Eliot**”]

11. This man designed a museum that is mainly underground and is accessed via a tunnel through a mountain. He designed two 40-story towers along Boston Harbor, as well as the upside down, pyramidal Dallas City Hall. Other works by this man include the John F. Kennedy Library and the Hancock Tower. His structure in the Cour Napoléon, commissioned by President Mitterrand, resembles a museum designed by him on the coast of Lake Erie, the Rock and Roll Hall of Fame. For 10 points, name this Chinese-American architect of the glass Louvre Pyramid.

ANSWER: Ieoh Ming **Pei**

The northernmost point of this island is the Shimokita Peninsula, where the mythical Sanzu River is believed to be located. This island is bordered to the southwest by the Kanmon Straits, and most of its industry and population is located in the Tokaido corridor. The Seikan Tunnel, the longest rail tunnel in the world, connects this island with Hokkaido. Much of this island's population lives within the Kantō Plain, where Mt. Fuji and Tokyo are located. For 10 points, name this island, the largest and most populous in Japan.

ANSWER: **Honshu**

13. This character accepts the blame for tearing an anatomy textbook, for which he is beaten, and afterwards gets revenge by stealing his schoolmaster's wig. In another work, this character avoids mentioning the death of Miss Watson so that he can carry out an incredibly stupid plan to help a man escape from slavery. This character once attended his own funeral, and his testimony in court saves the life of Muff Potter. For 10 points, name this love interest of Becky Thatcher and friend of Huckleberry Finn, the protagonist of a namesake novel by Mark Twain.

ANSWER: **Tom Sawyer** [accept either]

14. Loss of heterozygosity and homozygous deletions at chromosome 3p21.3 may be important causes of this disease. In 1919, Hamplén was the first to diagnose this disease using the sputum cytology test. This disease comes in small cell and non-small cell varieties. Early symptoms of it include swelling of the mediastinal lymph nodes. This type of cancer is responsible for the most cancer-related deaths, and, though it's not mesothelioma, airborne asbestos fibers are one cause of it. For 10 points, name this cancer whose most important cause is tobacco smoke.

ANSWER: **lung cancer**

15. A political party named for hats involved Sweden in this war, aiming to regain lost territories around the Oder River. During this war, one king defeated a force led by the Prince de Soubise and Joseph of Saxe-Hildburghausen. That battle took place near Rossbach, where Prussian troops were led by Frederick the Great. During this war, Spain lost Florida and regained Cuba. This war came after a diplomatic revolution that reversed traditional alliances in Europe, a result of the War of the Austrian Succession. For 10 points, name this war which saw the Austrians try to recover Silesia and whose American theater was known as the French and Indian War.

ANSWER: **Seven Years'** War [accept "**Pomeranian** War" until "Soubise"]

16. This leader described himself as having “drunk the poisoned chalice” after accepting a ceasefire with a western neighbor. He was arrested by security forces on the date of 15 Khordad before being forced into exile, and he spread his lectures with cassette tapes. During his tenure, the USS *Vincennes* shot down his nation’s Flight 655. This leader’s nation was targeted with chemical weapons by Saddam Hussein, and he supported the students who stormed the American embassy in his nation. For 10 points, name this first Supreme Leader of Iran.

ANSWER: Ayatollah Ruhollah Mostafavi Moosavi Khomeini

17. The Landau-Lifshitz equation predicts the response of magnetization due to this phenomenon. One form of this quantity is equal to the cross product of the magnetic dipole moment and the magnetic field; that form is named for Larmor. This quantity dotted with angular velocity gives power, and this quantity is equal to the time derivative of angular momentum. It can also be defined as the cross product of an applied force and the lever arm. For 10 points, name this quantity, which is the rotational analogue of force.

ANSWER: torque [accept precession until “angular velocity”]

18. This artist depicted two men in a crowd pointing at a figure whose red tunic is about to be removed by a man in green. In another work, distressed nude figures accept green and yellow robes, while a man clad in blue has his arms outstretched. A small crucifix sits atop a pole next to a priest in a translucent robe in this man’s most famous work, in which St. Stephen and St. Augustine assist at the interment of the title figure. For 10 points, name this artist of *The Disrobing of Christ*, *The Opening of the Fifth Seal*, and *The Burial of the Count of Orgaz*, a native of Crete.

ANSWER: El Greco [accept “Domenikos Theotokopoulos”]

19. Songs sung during this holiday include "Dayenu" and "Chad Gadya". *Chametz* may not be eaten on this holiday, which begins on the 15th day of the month Nisan. Mah Nishtanah, or the Four Questions set forth in the Haggadah, are usually asked by the youngest child during this holiday’s celebratory Seder, during which bitter *maror* and unleavened *matzah* are eaten. Its name recalls the Angel of Death’s skipping the houses of the Israelites during the Tenth Plague. For 10 points, name this Jewish holiday that celebrates the exodus of the Jews from Egypt.

ANSWER: Passover [accept “Pesach”]

20. This man’s pamphlet “A View of the Conduct of the Executive” defended his actions as Minister to France, including rescuing Thomas Paine from jail. During the presidency of this supporter of the American Colonization Society, Spain signed the Adam-Onís Treaty to cede Florida to the United States. During his tenure, the United States experienced the “Era of Good Feelings.” This president attempted to end European colonization of the Americas with namesake doctrine. For 10 points, name this fifth president of the United States.

ANSWER: James Monroe

TB. It's not in Prussia, but the Sans-Souci Palace was built using *corvée* labor by this country's King Henry I. One war that took place in this modern country included the Battle of Vertières, which saw rebellious forces under François Capois defeat the Vicomte de Rochambeau. This country, in which Charles Leclerc died of yellow fever, was once ruled by the self-proclaimed Emperor Jean-Jacques Dessalines, a friend of Toussaint l'Ouverture. For 10 points, name this Caribbean country that achieved independence from France following a slave revolt and shares Hispaniola with the Dominican Republic.

ANSWER: Republic of Haiti [accept "République d'Haïti" or "Republik Ayiti"]

Bonuses

1. This painting's leftmost figure is the only one depicted in profile and its middle figure has her hair in a bun. For 10 points each:

[10] Name this work that depicts meat and fruit lying before five prostitutes, whose faces may have been inspired by African tribal masks.

ANSWER: *Les Demoiselles d'Avignon* [accept "*The Young Women of Avignon*" or "*The Young Ladies of Avignon*"]

[10] This artist of *Les Demoiselles d'Avignon* also created a work that depicts a screaming horse and a mother cradling her dead child during the bombing of the title Basque city, *Guernica*.

ANSWER: Pablo Ruiz y Picasso

[10] Picasso painted this woman, author of *The Autobiography of Alice B. Toklas*, wearing a drab brown jacket. When a critic said she didn't resemble her portrait, Picasso replied, "She will."

ANSWER: Gertrude Stein

2. In this work, a character kills an evil sturgeon and twelve serpents. For 10 points each:

[10] Name this poem in which the West Wind, Mudjekeewis, seduces the hero's mother, Wenonah. The protagonist is based on Tarenyawago, an Iroquois hero.

ANSWER: *The Song of Hiawatha*

[10] This Fireside poet wrote *The Song of Hiawatha* and "Paul Revere's Ride".

ANSWER: Henry Wadsworth Longfellow

[10] This lover of Hiawatha marries him and later dies in the winter. In Dakota Sioux, her name translates to "waterfall".

ANSWER: Minnehaha

3. 2014 was the 40th anniversary of one of the most exciting events ever, the November Revolution in particle physics. For 10 points each:

[10] Name this particle that was discovered nearly simultaneously at both SLAC and Brookhaven during the November Revolution.

ANSWER: J/psi meson

[10] The J/psi meson is composed of a charm and an anti-charm flavor of these fundamental particles. They come in six flavors, and three of them are found in hadrons like the proton.

ANSWER: quarks

[10] Quantum chromodynamics describes the "confinement" of quarks into groups of three because of this property, which has nothing to do with visible wavelengths of light.

ANSWER: color charge

4. Jean-Paul Sartre's novel *La Nausée* is a manifesto of this movement. For 10 points each:

[10] Name this philosophical movement that holds that "existence precedes essence."

ANSWER: existentialism

[10] This Dane developed the aesthetic, ethical, and religious life stages in works like *Either/Or*.

ANSWER: Søren Aabye Kierkegaard

[10] This Kierkegaard work claims that misalignment with God's plan is the reason for despair. Its title is taken from the story of Lazarus found in the Gospel of John.

ANSWER: *The Sickness Unto Death* [accept "*Sygdommen til Døden*"]

5. This general covered for Stonewall Jackson after the latter was wounded at Chancellorsville. For 10 points each:

[10] Name this young cavalry general who died after being wounded at Yellow Tavern.

ANSWER: James Ewell Brown “Jeb” **Stuart**

[10] Stuart was opposed at Yellow Tavern by this Union cavalry general, who burned Virginian wheat fields in his Shenandoah Campaign.

ANSWER: Philip Tecumseh **Sheridan**

[10] Sheridan commanded the Union Cavalry Corps at this 1865 siege near Richmond, which included the disastrous Battle of the Crater, proposed by Pennsylvanian mining engineers.

ANSWER: Siege of **Petersburg** [accept “Battle of **Petersburg**”]

6. Projecting the three-dimensional Earth onto two-dimensional paper produces some interesting results. For 10 points each:

[10] Name this map projection, developed in 1569, which remains popular despite the fact that it massively distorts the size of land masses near the Earth’s poles.

ANSWER: **Mercator** projection

[10] This map projection was used by National Geographic until its replacement by the Winkel tripel projection. It was developed in 1963 as a compromise between equal area and conformity.

ANSWER: **Robinson** projection

[10] Buckminster Fuller invented this map, which projects Earth onto an icosahedron. It therefore has little deformation, at the cost of resembling a bunch of triangles and rhombuses.

ANSWER: **Dymaxion** map

7. For 10 points each, name some things about how fluids respond to temperature change.

[10] This quantity is found where vapor pressure equals atmospheric pressure, explaining why it is lower at higher altitudes.

ANSWER: **boiling point**

[10] This process separates liquids based on difference in boiling points. Its fractional type is used when those differences are fairly small.

ANSWER: **distillation**

[10] These mixtures violate Raoult’s law because, when they are boiled, their vapors have the same proportions of components as the original liquid.

ANSWER: **azeotropes**

8. The Fronde was a result of the policies of this Chief Minister. For 10 points each:

[10] Name this non-Richelieu regent and cleric who represented France at the peace conference of Westphalia.

ANSWER: Jules Cardinal **Mazarin** [accept “Giulio Raimondo Cardinal **Mazzarino**”]

[10] Cardinal Mazarin was regent for this long-reigning French monarch, known as the Sun King, who employed Lully and Molière and issued the Edict of Fontainebleau.

ANSWER: **Louis XIV**

[10] This finance minister of Louis XIV improved French industry by founding the Royal Glass Manufactory to compete with Venetian glassmakers, and the Gobelins tapestry works.

ANSWER: Jean-Baptiste **Colbert**

9. In this novel, the beast turns out to be the flapping parachute of a fighter pilot who was shot down. For 10 points each:

[10] Name this dystopian novel in which a stranded group of schoolboys offer the title creature, a severed pig's head, to the beast.

ANSWER: Lord of the Flies

[10] This British novelist wrote *Lord of the Flies*.

ANSWER: William Golding

[10] The protagonist of this other novel by Golding is a Neanderthal named Lok, who observes the use of fire and sailing boats by the new *Homo sapiens*.

ANSWER: *The* Inheritors

10. This god will kill the Midgard Serpent at Ragnarok only to be poisoned by it. For 10 points each:

[10] Name this Norse god of thunder who once disguised himself as Freyja to kill Thrym, because Thrym had stolen a certain possession.

ANSWER: Thor [accept "Thunor" or "Donar"]

[10] Thrym stole this weapon created by the dwarves Sindri and Brokkr. Thor wields this hammer in battle.

ANSWER: Mjölñir [accept "Mjølne"]

[10] Thor's chariot is pulled by two of these animals named Tanngrjost and Tanngrisni, or Tooth-Grinder and Tooth-Gnasher.

ANSWER: goats

11. Vitamins A, D, E, and K are soluble in this class of molecules because they are either hydrophobic or amphiphilic. For 10 points each:

[10] Name this group of molecules stored in adipocytes. They include include fatty acids, triglycerides, and oils.

ANSWER: lipids

[10] This structure uses lipid rafts like caveolae. The fluid mosaic model of it explains its semi-permeability.

ANSWER: cell membrane

[10] These lipids have a base of four cycloalkane rings. They include cholesterol and sex hormones.

ANSWER: steroids

12. In this work, the Director mourns the loss of a rehearsal time despite two deaths among his company. For 10 points each:

[10] Name this play whose final scene sees the Little Girl drown in a fountain, while the Director wonders whether her death and the Boy's suicide were staged.

ANSWER: Six Characters in Search of an Author [accept "Sei personaggi in cerca d'autore"]

[10] This Italian author wrote *Enrico IV* and *Six Characters in Search of an Author*.

ANSWER: Luigi Pirandello

[10] This character in *Six Characters in Search of an Author* convinces girls like the Stepdaughter to become prostitutes under the pretext of having them sell robes and coats.

ANSWER: Madame Pace

13. This sculpture may represent Dante contemplating Hell. For 10 points each:

[10] Name this French sculpture of a seated man with his head resting in his hand.

ANSWER: The **Thinker** [accept "Le **Penseur**"]

[10] This artist of *The Thinker* originally included it as part of his collection *The Gates of Hell*. He also created *The Age of Bronze* and *The Burghers of Calais*.

ANSWER: François-Auguste-René **Rodin**

[10] This trio of figures, who originally pointed to the phrase "Abandon all hope, ye who enter here," are visible at the top of *The Gates of Hell*.

ANSWER: The **Three Shades** [accept "Les **Trois Ombres**"]

14. This ruler created the League of Corinth after his conquest of Greece. For 10 points each:

[10] Name this Hellenizing monarch who ruled from Pella and was assassinated at a wedding. His more famous son fought alongside him at the Battle of Charonea before succeeding him.

ANSWER: **Philip II** of Macedon

[10] Philip's son was this ruler, who conquered most of the known world before stopping at the Indus River. He named Egypt's capital after himself, and the *diadochi* fought over his empire.

ANSWER: **Alexander the Great** [accept "**Alexander III** of Macedon"]

[10] Alexander's beloved horse had this name. It is said that Alexander tamed this horse in his youth by noticing that it was afraid of the noise of crowds and its own shadow.

ANSWER: **Bucephalus**

15. For 10 points each, name some things about the development of keyboard instruments.

[10] This instrument uses plectra held by jacks to pluck its strings. The *Italian Concerto* and the *Goldberg Variations* were written for it.

ANSWER: **harpsichord**

[10] The harpsichord evolved into this modern keyboard instrument, invented by Bartolomeo Cristofori. It usually has three pedals, one of which, the damper, allows it to sustain notes.

ANSWER: **piano**

[10] Large harpsichords developed from this small early keyboard, whose name may reflect that young maidens frequently played it. Orlando Gibbons wrote for this non-organ instrument.

ANSWER: **virginal**

16. One man's absence for forty days and nights caused the creation of this idol. For 10 points each:

[10] Name this statue created from the Israelites' earrings. Its ashes were drunk by them after its destruction.

ANSWER: **Golden Calf** [accept "**ēggel hazâhâv**"]

[10] When he saw the Golden Calf, this brother of Aaron threw down the tablets of the Ten Commandments, breaking them. The Book of Exodus recounts his parting of the Red Sea.

ANSWER: **Moses** [accept "**Moshe**"]

[10] In Exodus, God provides massive amounts of quail to the wandering Israelites, as well as this "hoarfrost-like" edible substance. Its taste is compared to wafers with honey.

ANSWER: **manna**

17. In this novel, the protagonist befriends and later marries Parvati-the-witch, who dies in The Emergency of 1975-77. For 10 points each:

[10] Name this novel whose protagonist Saleem Sinai, who was born on the exact moment India became an independent nation, narrates a fantastical version of his life to his wife Padma.

ANSWER: Midnight's Children

[10] This British Indian author wrote *Midnight's Children* and *The Satanic Verses*, the latter of which caused Ayatollah Khomeini to issue a *fatwa* against his life.

ANSWER: Ahmed Salman Rushdie

[10] This novel by Rushdie, set in the town of Q, includes a teacher named Eduardo Rodriguez, who tutors the protagonist Omar. This novel also features Chunni, Munnee, and Bunny.

ANSWER: Shame

18. A fake recipe for this food included “four heaping pounds of freshly ground plankton”. For 10 points each:

[10] Name this portable comestible that goes to your thighs. It is the specialty of the Krusty Krab.

ANSWER: Krabby Patty

[10] SpongeBob descended into madness after apparently forgetting to include this ingredient in a Krabby Patty made for Bubble Bass. In reality, Bubble Bass had concealed it under his tongue.

ANSWER: pickles

[10] If Mr. Krabs wishes to review the Secret Formula, among other things he must balance a glass of chocolate milk on his head and stand on one leg while doing this specific action.

ANSWER: singing the Bikini Bottom national anthem

19. This ruler employed the Nine Jewels and founded the syncretistic faith *Din-i-Ilahi*. For 10 points each:

[10] Name this grandson of Babur who built his capital, Fatehpur Sikri, near Agra.

ANSWER: Abu'l-Fath Jalal ud-Din Muhammad Akbar I [accept “Akbar the Great”]

[10] Akbar ruled this Muslim empire in India, founded by Babur, a descendant of Mongol conquerors. Other rulers of this empire, like Aurangzeb, sat on the Peacock Throne.

ANSWER: Mughal Empire [accept “Gūrkāniyān”]

[10] This famously mild second Mughal Emperor and father of Akbar lost most of his empire to Sher Shah Suri and made Bairam Khan the leader of his army while in exile in Kandahar.

ANSWER: Nasir ud-Din Muhammad Humayun

20. At the end of this period, all marine reptiles except ichthyosaurs and plesiosaurs went extinct. For 10 points each:

[10] Name this geologic period during which mammals evolved from cynodonts that diverged from other therapsids.

ANSWER: Triassic Period

[10] The Triassic also saw the first of these terrible lizards like *Coelophysis* and *Plateosaurus*. They ruled the Earth during the Jurassic and Cretaceous periods as well.

ANSWER: dinosaurs

[10] The three periods during which dinosaurs lived form this middle era, which preceded the Cenozoic. Over its course, Pangaea divided into Laurasia and Gondwanaland.

ANSWER: Mesozoic Era

TB. The protagonist of this work is accompanied by Una and a dwarf. For 10 points each:

[10] Name this poem whose hero defeats Archimago and a monster that vomits books.

ANSWER: *The Faerie Queene*

[10] *The Faerie Queene* is a poem by this English author of *The Shepheardes Calender*.

ANSWER: Edmund Spenser

[10] Spenser innovated a variant of this poetic form, a fourteen-line style also used by Petrarch. Some of Shakespeare's are addressed to a "Fair Youth" and a "Dark Lady".

ANSWER: sonnets