Finals

Tossups

(Tossup 1) The fall of this country was described as Churchill as "the worst disaster and largest capitulation in British history". Since independence, this country has been led by the People's Action Party. This country was one of the Four Asian Tigers, and its economic miracle largely occurred under the leadership of Prime Minister Lee Kuan Yew. Chewing gum is famously banned in this country. For the point, name this Southeast Asian country which gained independence from Malaysia in 1965.

ANSWER: **Singapore**

(Tossup 2) Residents near this body of water often live in longhouses called malocas. The largest cities on this river are Belem and Manaus. A tributary of this river, the largest blackwater river in the world, is called the Rio Negro. Animals found in this most biodiverse region in the world include the carnivorous red-bellied piranha. For the point, name this longest river in South America that shares its name with a rainforest.

ANSWER: **Amazon** River

(Tossup 3) This god was said to possess a Cap of Invisibility and a chariot drawn by four black horses. This god abducted his wife while she was picking flowers in the fields of Nysa and tricked her into eating a pomegranate seed from his domain. This god showed mercy to Orpheus after his wife, Persephone, was moved by Orpheus's music. This eldest son of Cronus and Rhea is frequently depicted with his three-headed dog, Cerberus. For the point, name this Greek god of the dead and the underworld.

ANSWER: **Hades**

(Tossup 4) In this work, a character accidentally hangs himself while escaping from a mob angry at his murder of Nancy. This novel's protagonist briefly works as a mourner for the undertaker Mr. Sowerberry, and he is kidnapped by the robber Bill Sikes. The title character in this novel joins a gang of pickpockets with the Artful Dodger and Fagin. For the point, name this Charles Dickens novel about a title orphan who says "Please sir, I want some more".

ANSWER: **Oliver Twist**

(Tossup 5) The initial official code name of this initiative was the "Development of Substitute Materials". Harry Daghlian and Louis Slotin were killed by the "Demon core" during this initiative at the Los Alamos Laboratory. The Trinity test occured as part of this initiative, and this initiative's creations were used against Hiroshima and Nagasaki. For the point, name this American research project which led to the creation of the atomic bomb.

ANSWER: **Manhattan** Project

(Tossup 6)   The model of these particles was proposed by physicists Murray Gell-Mann and George Zweig. Baryons contain an odd number of these particles, while mesons contain one of these and one of its corresponding antiparticles. The six known flavors these particles include the top, strange and charm variants. For the point, name these elementary particles which make up hadrons like protons and neutrons.

ANSWER: **quarks**

(Tossup 7)   This mathematician wrote *The Quadrature of the Parabola* and set out to calculate the number of sand grains in the universe in *The Sand Reckoner*. This man's namesake screw is often used to transport water, and he allegedly invented a heat ray and giant claw to repel a siege. This mathematician was killed by a Roman soldier after he said "Do not disturb my circles. For the point, name this Greek mathematician who discovered whether King Hiero II's crown was made of pure gold.

ANSWER: **Archimedes**

(Tossup 8) The Polflucht hypothesis was used to explain the movements of the subject of this phenomenon. Hans Stille and Leopold Kober worked on a "fixist" geosyncline model which opposed this phenomenon. This theory was first put forward by Abraham Ortelius, and later more fully developed by Alfred Wegener. For the point, name this concept which built on plate tectonics, where namesake large landmasses move relative to one another.

ANSWER: **continental drift** (prompt on "plate tectonics" before "Abraham")

(Tossup 9) In a story by this author, Aylmer invents a potion to purge away a "Crimson Hand," killing Georgiana. In another story by this author of "The Birth-Mark," the title character sees a procession in a forest in Salem. He wrote a work in which characters watch a meteor shower from atop a scaffold after Roger Chillingworth leaves his wife who had an affair with Arthur Dimmesdale. For the point, name this author of "Young Goodman Brown" and *The Scarlet Letter*.

ANSWER: Nathaniel **Hawthorne** (accept **Hathorne**)

(Tossup 10) In 1964, this man delivered the "A Time for Choosing" speech in support of Barry Goldwater. The Iran-Contra affair occurred during the second term of this president who also invaded Grenada in Operation Urgent Fury. This president once publicly called the Soviet Union an "evil empire" and later urged Mikhail Gorbachev to "tear down this wall". For the point, name this Republican President, a former Hollywood actor who succeeded Jimmy Carter.

ANSWER: Ronald (Wilson) **Reagan**

(Tossup 11)   This leader instituted the Social Credit system to track civilian attitudes toward his government. This leader faced the 2014 Umbrella Revolution in one of his country's territories and developed the One Belt, One Road initiative. This leader, who has been compared in appearance to Winnie the Pooh, has faced unrest among Muslims in his country's Xinjiang Province. For the point, name this current leader of China.

ANSWER: **Xi** Jinping

(Tossup 12) During a keynote address, this company's owner said "I'd like to die on Mars, just not on impact." The first stage of this company's launch vehicle, the BFR, was called "Super Heavy", and later renamed "Starship". This company sent Falcon Heavy into space with its CEO's personal Tesla Roadster as payload. For the point, name this aerospace manufacturer and space transportation company in Hawthorne, California headed by Elon Musk.

ANSWER: **SpaceX**

(Tossup 13) This composer wrote a Violin Concerto dedicated to his friend Joseph Joachim. This composer who used the Lutheran Bible as a setting for his requiem also wrote a set of Hungarian Dances. This composer's first symphony has been referred to as "Beethoven's Tenth". Chronologically, this composer is the third of the "Three B's" of classical music. For the point, name this German composer of a namesake lullaby.

ANSWER: Johannes **Brahms**

(Tossup 14) The Battle of Guadalete occurred in this modern day country and led to the conquest of the Visigothic Kingdom by the Moors. Much of the Reconquista occurred in this modern-day country, where the Emirate of Granada was located. This modern-day country was largely unified by the marriage of Isabella I of Castile and Ferdinand II of Aragon. For the point, name this Iberian country where the Catholic Monarchs ruled from Madrid.

ANSWER: Kingdom of **Spain**

(Tossup 15) This author wrote a work in which Fyodor Pavlovich fights for Grushenka with his son Dimitri, though she begins a friendship with Fyodor's other son Alyosha. Another work by this author features the murder of a pawnbroker by the former law student Rodion Raskolnikov. For the point, name this Russian author of *The Brothers Karamazov* and *Crime and Punishment*.

ANSWER: Fyodor **Dostoevsky**

(Tossup 16) This organ, covered by pleural sacs, receives deoxygenated blood from the heart through the pulmonary artery. This organ contains lobar and segmental types of passages called bronchi. Diffusion occurs through hollow sacs in this organ called alveoli, while expansion of this organ is caused by contractions of the diaphragm. For the point, name this pair of primary organs in the respiratory system responsible for gas exchange.

ANSWER: **lungs**

(Tossup 17) Cyrus the Great allowed victims of the Babylonian Captivity to return to this city to rebuild its temple. Golgotha is said to be located at the site of this city's Church of the Holy Sepulchre, which also contains the tomb of Jesus. The Dome of the Rock and al-Aqsa Mosque are located at Temple Mount, in the 'Old' part of this city. For the point, name this holy city in Christianity, Islam and Judaism, the disputed capital of Israel.

ANSWER: **Jerusalem**

(Tossup 18) This man was the first to use fractional indices and to employ coordinate geometry to derive solutions to Diophantine equations. This man demonstrated how prisms can split light into a spectrum of colors in his work *Opticks*, and also shared credit with Gottfried Leibniz for his invention of calculus. *Principia Mathematica* was written by, for the point, which English scientist, famous for his namesake laws of motion?

ANSWER: Isaac **Newton**

(Tossup 19) One artist from this country preserved a tiger shark in a tank in an artwork titled *The Physical Impossibilities of Death in the Mind of Someone Living*. That artist from this country, Damien Hirst, is one of this country's YBAs. Another group of artists from this country, including John Everett Millais, founded the Pre-Raphaelite Brotherhood. For the point, name this country where Claude Monet painted a series featuring Westminster Palace, the *London Parliament* series.

ANSWER: Great **Britain** (accept **United Kingdom**, accept **UK**, prompt on England)

(Tossup 20) One author from this country wrote a work in which the main character's parents, Lionel and Cathy, both died in prison. That author from this country also wrote a work in which a white family flees to the village of their servant, July. *Burger's Daughter* and *July's People* were written by a Nobel laureate from this country who criticized its racist regime. Nadine Gordimer wrote works critical of Apartheid in, for the point, what African country where she lived in Johannesburg?

ANSWER: (Republic of) **South Africa**

(Tossup 21) The primary object at this location was carved by the Piccirilli brothers, which was sculpted by the sculptor of Columbia University's *Alma Mater*. An epitaph beginning with "In this temple" can be found at this location, and the central object at this location is depicted in an unbuttoned frock with arms resting on a semicircular chair; that central object is a sculpture by Daniel Chester French. An inscription of the central figure's Second Inaugural Address can be found at this location, opposite an inscription of the Gettysburg Address. For the point, name this monument in the District of Columbia that honors a nineteenth-century President.

ANSWER: **Lincoln Memorial** (accept *Abraham Lincoln* (statue) before "epitaph")

(Tossup 22) This man spent 21 years in South Africa after he was hired by the merchant Abdullah as a lawyer for his cousin in 1893. In 1930, this man led the Salt March in protest against colonial taxes. This nationalist leader famously advocated the use of satyagraha, and he was assassinated in 1948 by Hindu nationalist Nathuram Godse. For the point, name this Indian independence leader who promoted nonviolent methods of protest against British colonial rule.

ANSWER: **M**ahatma **Gandhi** (Accept **M**ohandas **Gandhi**, prompt on "Gandhi" alone)

(Tossup 23)   The Przewalski and Trapan species of this animal have never been domesticated. "Hot blooded" variants of this animal include the Akhal-Teke and Arabian types, while the draft type includes the Clydesdale and Shire. The hinny is a reciprocal cross to the offspring of a male one of these animals and a female donkey, the mule. For the point, name these equestrian animals historically used for humans to ride and gallop long distances.

ANSWER: **Horses**

(Tossup 24)   One photograph taken in this city depicts a boy holding a toy hand grenade and was taken by Diane Arbus. Another photograph taken in this city by Richard Drew depicts an upside-down man hurtling down to his death after jumping from a building. An Albert Eisenstadt photo depicts a nurse in this city being kissed by a sailor celebrating the end of World War II. For the point, name this setting of Falling Man and V-J Day in Times Square.

ANSWER: **New York** City (accept **NYC**)

(Tossup 25)   One character in this work tries to elope with Georgiana and ultimately marries Lydia, while another character declines to dance with someone who he says is not pretty enough. This novel claims that "a single man in possession of a good fortune must be in want of a wife". Charles Bingley marries Jane in this novel. For the point, name this novel about a romance between Elizabeth Bennet and Mr. Darcy by Jane Austen.

ANSWER: **Pride and Prejudice**

(Tossup 26)   Lambert's law of this function is used to find luminous intensity and is also called this function's emission law. This function's "similarity" names a measure of similarity between two non zero vectors. This function's rule is useful for finding the third side of a triangle when two sides and their enclosed angles are known. For the point, name this function, which, in a right-angled triangle, is equal to the adjacent over the hypotenuse.

ANSWER: **cosine** (prompt on "cos")

(Tossup 27)   In one story, this god dresses up as Freyja in order to sneak into Jotunheim. This god's goats can be eaten and then will regrow the next day. This god asked the dwarf Alvis questions until the sun came up and Alvis turned to stone. Loki distracted the dwarves charged with making this god's weapon, and this god is the brother of Loki. This god wields the hammer Mjolnir. For the point, name this Norse god of thunder.

ANSWER: **Thor** (accept **Donar**; accept **Thuner**)

(Tossup 28)   The day after his wedding, this man visited the Soviet Union with his wife as part of an official delegation. This man began his career as a member of the Liberty Union party, and he was later elected mayor of Burlington. In February 2019, this man announced his candidacy for the 2020 Presidential elections, his second presidential campaign. For the point, name this democratic socialist, an independent senator from Vermont who challenged Hillary Clinton for the Democratic nomination in 2016.

ANSWER: Bernie **Sanders**

(Tossup 29) At the end of this battle, one side's commander refused to attend a ceremony by claiming illness and sent his deputy Charles O'Hara. *The World Turn'd Upside Down* was legendarily played at the end of this battle. One side in this battle was unable to withdraw due to a defeat at the Battle of Chesapeake Bay and was commanded by Charles Cornwallis. For the point, name this 1781 battle in Virginia in which Washington and Rochambeau forced British forces to surrender.

ANSWER: Battle of **Yorktown**

(Tossup 30) After returning home, this character spends hours each day speaking to horses in his stable. This character once encountered a race of talking horses known as Houyhnhnms and a group of immortals on Luggnag. This character was famously shipwrecked on an island inhabited by tiny humans, the Kingdom of Lilliput. For the point, name this protagonist of a Jonathan Swift novel regarding his "travels".

ANSWER: Lemuel **Gulliver**

(Tossup 31) The Ancient Egyptian method for this mathematical operation involved successive additions and doubling and was documented in the Rhind Mathematical Papyrus. The grid method is frequently used to teach this mathematical operation, and many cultures used "tables" for this operation. When this mathematical operation is done between any number and 0, the answer is 0. For the point, name this mathematical operation, the inverse of division.

ANSWER: **Multiplication**

(Tossup 32) Operation Frequent Wind occurred at the end of this conflict during the fall of one side's capital. William Westmoreland commanded American forces during this conflict and he was caught by surprise during this conflict's Tet Offensive. The winning side during this conflict was led by Vo Nguyen Giap and Ho Chi Minh and used guerillas known as Viet Cong. For the point, name this conflict in a Southeast Asian country which ended in victory for the communist North.

ANSWER: **Vietnam** War

(Tossup 33) One work by this playwright was an extensive rework of his earlier work, *The Wood Demon*. That work by this playwright features a visit by a retired professor and his wife Yelena to a rural estate. A dramatic principle titled for this playwright is his namesake "gun". Another work by this playwright features Madame Ranevskaya's efforts to save her estate which is eventually chopped down by Lopakhin. For the point, name this Russian playwright who wrote *Uncle Vanya* and *The Cherry Orchard*.

ANSWER: Anton **Chekhov**

(Tossup 34) Mixing sugar and sulfuric acid creates a smoking black tower of this element. In organic chemistry, alkanes are molecules that are made only of Hydrogen and this element. Fullerenes are made of this element, and this element is most stable with 4 bonds. Diamond and graphite are allotropes of this element, which can be made into namesake "nanotubes." For the point, name this atom with atomic number 6 and symbol C.

ANSWER: **Carbon** (prompt on **C**)

(Tossup 35) In one myth from this country, a rabbit tricks sea monsters into lining up and then uses them as a bridge to cross the sea. Two characters from this country's mythology created land by dancing around a jeweled spear, and the child of one of those characters fled into a cave after having a flayed horse thrown at her. That figure was Amaterasu. For the point, name this country, home of the Shinto religion.

ANSWER: **Japan** (accept **Nihon**; accept **Nippon**)

(Tossup 36) The United States took over construction of this structure following the signing of the Hay-Bunau-Varilla treaty. An attempt to construct this structure led by Ferdinand De Lesseps failed due to yellow fever and tropical diseases. This structure passes through the Gatun lake and enabled ships to avoid Cape Horn. For the point, name this artificial waterway which passes through a Central American country and allows travel between the Atlantic and Pacific.

ANSWER: **Panama Canal**

(Tossup 37) The Hoggar Mountains are located in this desert, and Emi Koussi is the highest peak in this desert. Nouakchott and Tamanrasset are major cities located within this desert. The Tenere, Eastern, and Nubian deserts are parts of this desert. To the south, this largest hot desert in the world is bounded by the Sahel. For the point, name this desert which is found throughout much of North Africa.

ANSWER: the **Sahara** (desert)

(Tossup 38) This country's king Jan III Sobieski led a charge of its famous Winged Hussars during the Siege of Vienna. This country was later the subject of three partitions which resulted in its destruction at the hands of its neighbors Prussia, Austria, and Russia. The Kosciuszko uprising occurred in this country, and its last king was Stanislaw Poniatowski. For the point, name this country which once formed a commonwealth with Lithuania that was ruled from Krakow and Warsaw.

ANSWER: **Poland**

(Tossup 39) These animals are the only surviving family of the order Proboscidea. Carl Linnaeus classified a Sri Lankan one of these animals under the binomial maximus, while indicus was given to the Indian counterpart. Johann Friedrich Blumenbach named the African type of these animals, which have bigger ears than the Asian variant. For the point, name the largest terrestrial animals in the world, known for their long trunks and tusks.

ANSWER: **Elephant**

(Tossup 40) Early mentions of this work claim that it was a translation of a Persian book, Hezar Afsan. One story from this work features a story called "The Three Apples" which is followed by "The Hunchback Cycle". Famous stories in this work include "Sinbad the Sailor", "Ali Baba and the Forty Thieves" and "Aladdin's Wonderful Lamp". For the point, name this work, a collection of folk tales narrated by Scheherazade.

ANSWER: **One Thousand and One Nights** (Accept **Arabian Nights**)

(Tossup 41) Ships can bypass this site by means of the Welland Canal. The Prospect Point Observation Tower overlooks this site, which can be toured via the Maid of the Mist. Cave of the Winds and Goat Island are at this landmark, whose Rainbow Bridge crosses an international border. The American, Bridal Veil, and Horseshoe are all part of, for the point, what waterfalls between Ontario and New York?

ANSWER: **Niagara** Falls

(Tossup 42) The self-immolation of Mohamed Bouazizi occurred at the start of this regional event. President Zine El Abidine Ben Ali was the first major leader ousted during this event. Widespread protests in Tahrir Square as part of this event culminated in the resignation of Hosni Mubarak in Egypt, while civil war in Libya began as a result of this event. Many dictators were overthrown during, for the point, what wave of protests which began spreading across the Middle East in 2010?

ANSWER: **Arab Spring**

(Tossup 43) The teniae coli, haustra, and epiploic appendages are three features unique to this organ. This organ's four regions are the sigmoid, transverse, ascending, and descending, and the entrance to this organ is the ileocecal valve. Food enters this organ after being digested in this organ's 'smaller' counterpart. For the point, name this five foot long part of the digestive system, where food enters after nutrients are absorbed by a "smaller" counterpart.

ANSWER: **large intestine** (accept **colon**)

(Tossup 44) In this play, the servant Cathleen discusses one character's former dreams of becoming a professional pianist. A character in this play brings her wedding dress down from the attic and rants that Doctor Hardy is incompetent. In this play, Edmund is diagnosed with tuberculosis while his mother Mary relapses into morphine addiction. For the point, name this semi-autobiographical play about the Tyrone family, by Eugene O'Neill.

ANSWER: **Long Day's Journey into Night**

(Tossup 45) One artist used this technique to paint an art critic holding a hat and a white flower in front of a background of psychedelic swirls. The Portrait of Felix Feneon was painted using this technique by Paul Signac. In a painting that uses this technique, a woman with a black parasol walks a monkey on a leash. For the point, identify this technique featured in Georges Seurat's A Sunday Afternoon on the Island of La Grande Jatte.

ANSWER: **pointillism** (prompt on neo-impressionism, prompt on divisionism)