

2020 US Academic Bowl National Championships

Round 10

First Half

(Tossup 1) **“Hanne’s Spinning Song” is part of a musical movement with this title; that movement is the last of a four-part work by Haydn based on a James Thomson poem. Tchaikovsky’s first symphony is nicknamed for “daydreams” (*) of this time period. Frühlingstraum, or “Dream of Spring,” is part of a Schubert lied (LEED) about a journey in this season. For 10 points, the last part of Vivaldi’s *The Four Seasons* evokes what cold season?**

Answer: Winter

(Bonus 1) Leon Escudier called this man “the creator of a school of piano and [the] school of composition.” For ten points each:

Part 1: What Polish-French composer evoked a dog chasing its tail in his “Minute Waltz?”

Answer: Frederic Chopin

Part 2: Chopin composed numerous works in this form, meant to focus on a skill to practice and learn. Chopin’s include “Tristesse” and the “Revolutionary.”

Answer: etude

Part 3: Along with Mazurkas, Chopin composed many works in this Polish folk dance form, including his Drum and Military compositions.

Answer: Polonaise

(Tossup 2) **A construct named for this mathematician has a busy beaver type. Alonzo Church introduced the system of lambda calculus, which simulates constructs named for this mathematician. (*) This man proved the impossibility of solving the halting problem. This man’s namesake “test” can determine if a computer is indistinguishable from a human. For 10 points, name this mathematician and computer scientist who helped decrypt the Enigma code.**

ANSWER: Alan Turing

(Bonus 2) These shapes have volume $\pi r^2 h$ over three. For 10 points each:

Part 1: Name these shapes, similar to pyramids, that have a circle as the base. These shapes taper to an apex.

ANSWER: cones

Part 2: Conic sections like the parabola are defined with a line called a directrix and this kind of point. The sum of the distance from any point of an ellipse to these two points is constant.

ANSWER: foci [or focus]

Part 3: For an ellipse, the focal distance divided by the semimajor axis yields this quantity, which is always less than one for an ellipse. This quantity for a hyperbola is greater than one, while for all parabolas it is equal to one.

ANSWER: **eccentricity** [prompt on e]

(Tossup 3) **The Imjin War resulted in this city having significant Japanese influence, including a Shiro built in Jaseongdae Park. The Songdo Marine Cable car is connected to Amnam Park in this city that lies on the Nakdong River Delta. The 29th king of (*) Silla, Taejongdae, names a landmark in this city's Yeongdo island. For ten points, name this second largest city of South Korea, a port on the Korea Strait.**

Answer: **Busan** [or **Pusan**]

(Bonus 3) Pliny the Elder reports 2nd Century Roman Jews making their own form of this condiment to make it *kosher*. For ten points each:

Part 1: Name this Roman fish sauce distributed by the legion to various provinces.

ANSWER: **Garum** [Accept **Liquamen**]

Part 2: The most highly prized *garum* came from Lusitania, which makes up much of this European nation, was shipped out of the modern port of Lagos.

ANSWER: **Portugal**

Part 3: A *garum* factory was found in Malaga under a museum dedicated to this Spanish artist. His *Les Demoiselles d'Avignon* can be found at the MoMA.

ANSWER: Pablo **Picasso**

(Tossup 4) **In 2017, the first detection of gravitational waves was caused by two of these bodies colliding. They are formed above the Chandrasekar limit when gravitational pressure overcomes electron degeneracy pressure. The upper (*) limit on their mass is the Tolman-Oppenheimer-Volkoff limit, above which black holes are formed. Rotating examples of these stars that periodically give off radiation are known as pulsars. For ten points, name these extremely dense stars made up of a neutral subatomic particle.**

Answer: **neutron** stars

(Bonus 4) This quantity is larger for seawater than it is for freshwater. For 10 points each:

Part 1: Name this quantity that gives the concentration of salt in water.

Answer: **salinity**

Part 2: This type of water is ocean water that has more than 50 parts per trillion of salt. This type of extremely salty water forms pools in seafloor depressions due to its high density.

Answer: **brine**

Part 3: The density gradient caused by differences in temperature and salinity results in this system, in which sea currents form a global conveyor belt transporting heat and nutrients throughout the ocean.

ANSWER: thermohaline circulation [or THC]

(Tossup 5) A painting by Max Ernst shows this person in a large red robe in front of a pond whose color contrasts with that of a skeletal hand. Salvador Dali showed this person kneeling and holding a cross while being approached by a convoy (*) consisting of a horse and four long-legged elephants. Saint Sebastian and this person flank a depiction of the Crucifixion in the Isenheim Altarpiece. For ten points, name this saint who was tempted by demons in the desert.

Answer: Saint Anthony

(Bonus 5) Artwork made of these objects, which often complemented similar designs made from dyed porcupine quills, can be fashioned using an overlaid stitch or a lazy stitch. For ten points each,

Part 1: Name these objects used by many Native American artists. The smaller, glass variety of these objects made by Europeans were an important commodity in trade during the Columbian Exchange.

Answer: beads

Part 2: The Iroquois favored this type of beads, obtained from clams, which were generally either purple or white in color and that were fashioned into belts to commemorate historically important events.

Answer: wampum

Part 3: In the Great Plains, beadwork often adorned belts made from the hides of this animal. In the 1700s and the 1800s, this animal's wild population was reduced from over fifty million to less than one thousand and only narrowly avoided extinction.

Answer: American buffalo (or American bison)

(Tossup 6) First and last name required. **This man set a world land-speed record with the 999 when he raced across the frozen surface of Lake St. Clair. This man clashed with his son Edsel over diversification of his company's product line, eventually leading to the development of the (*) Model A.** He offered a novel five dollar a day wage and pioneered assembly lines to allow mass production in his company's factories outside of Detroit. For ten points, give this namesake of a major U.S. auto company.

Answer: Henry Ford

(Bonus 6) The results of this election led to the passage of the Twelfth Amendment. For ten points each,

Part 1: Name this election in which Thomas Jefferson won his first term. This election is sometimes called a "revolution" because it marked the first peaceful transition of power in American history.

Answer: Election of 1800

Part 2: This Democratic-Republican vice presidential-nominee tied with Jefferson, resulting in the election being decided in the House. In 1791, this politician won a Senate seat by defeating Philip Schuyler.

Answer: Aaron Burr

Part 3: The Election of 1800 was decided when James Bayard, a representative from this state, cast a blank ballot allowing Jefferson to win this state. Caesar Rodney, a Founding Father from this state, rode 70 miles in a thunderstorm to vote for independence.

Answer: Delaware

(Tossup 7) **This writer said "She loved me sometimes, and I loved her too" in his poem "Tonight I Can Write The Saddest Lines." This author wrote, "in you, everything (*) sank" in the final poem of a 1924 collection of amorous poetry that propelled him to fame. Augusto Pinochet's regime likely killed, for ten points, what Chilean poet of the collection *Twenty Love Poems and a Song of Despair*?**

Answer: Pablo Neruda (accept Ricardo Eliécer Neftali Reyes Basoalto)

(Bonus 7) In the last story of this collection, Griselda's husband claims to have killed their children to test her "patience." For ten points each:

Part 1: Name this collection. Two of its other stories follow the sinner Cepparello, who lies his way into becoming a saint, and Lisabetta, who strangely keeps the head of her murdered lover in a pot of basil.

Answer: *The Decameron*

Part 2: This 14th Century Italian author wrote *The Decameron*.

Answer: Giovanni Boccaccio

Part 3: The title of *The Decameron* alludes to the Italian word for this number. In the book, this number of people fleeing the plague in Florence each tell this many stories.

Answer: ten

(Tossup 8) **Klinefelter syndrome can result from possessing an extra copy of this structure. This structure can become "fragile" due to CGG trinucleotide repeats. A missing copy of this structure can cause (*) Turner's syndrome. Males always inherit this structure from their mother, while females receive one copy of this structure from each parent. For ten points, name this sex chromosome that is paired with the Y chromosome.**

Answer: X chromosome (prompt on just chromosome)

(Bonus 8) "Superbugs" such as MRSA [[murr-suh]] have gained this ability. For ten points each:

Part 1: Name this trait of certain microorganisms that protects them from the effects of compounds such as methicillin, fluoroquinolones, and sulfonamides.

ANSWER: **antibiotic resistance** (accept **antimicrobial resistance**; accept **AMR**; accept **ABR**; accept **AR**; prompt on partial answers)

Part 2: Antibiotics are used to kill these prokaryotic microorganisms which include E. coli and Streptococcus.

ANSWER: **bacteria**

Part 3: Bacteria can evade antibiotics by transferring genes for resistance contained on one of these circular pieces of DNA.

ANSWER: **plasmids**

Category Rounds

The categories are...

1. The CIA
2. Our Solar System
3. Don Quijote

The CIA

Name the...

Part 1: Director of Central Intelligence that went on to be Reagan's Vice President and a one term President himself

Answer: George H.W. Bush

Part 2: target of Operation Neptune Spear, a terrorist who founded Al-Qaeda

Answer: Osama bin Laden

Part 3: plane piloted by Francis Gary Powers shot down in USSR territory while spying for the CIA

Answer: U-2

Part 4: Director who successfully planned the Iranian coup in support of the Shah and was fired for the botched Bay of Pigs invasion

Answer: Allen Dulles

Part 5: rival of the Sandinista partly funded through CIA assisted drug trafficking

Answer: Contras

Part 6: Florida gangster of Italian descent who the CIA funded in his attempts to assassinate Fidel Castro.

Answer: Santo Trafficante

Places in the Solar System

Name the planet or part of the solar system where you can find...

Part 1: complex, intelligent life, including humans.

Answer: Earth

Part 2: Ceres, Vesta, and a large number of rocky bodies orbiting between the inner and outer planets.

Answer: asteroid belt

Part 3: Olympus Mons, the tallest mountain in the solar system.

Answer: Mars

Part 4: The orbits of Io, Ganymede, Europa, and Callisto.

Answer: Jupiter

Part 5: Pluto, Eris, and other distant objects beyond Neptune.

Answer: Edgeworth-Kuiper Belt

Part 6: Even more distant, the origin of long-period comets and the outer boundary of the solar system.

Answer: Oort cloud

Don Quijote

In relation to the novel *Don Quijote*, who or what is...

Part 1: The Spanish author who wrote the novel?

Answer: Miguel de Cervantes Saavedra

Part 2: The farmer who accompanies Don Quijote on his travels?

Answer: Sancho Panza (accept either underlined name)

Part 3: The structures that Don Quijote fights, thinking they're giants?

Answer: windmills (accept wind turbines)

Part 4: Don Quijote's run-down, old horse?

Answer: Rocinante

Part 5: The farm girl who Don Quijote believes is his noble love?

Answer: Dulcinea del Toboso (accept either underlined name; accept either name of Aldonza Lorenzo)

Part 6: Either title that Samson Carrasco uses to pose as enemy knights for Don Quijote to fight?

Answer: Knight of the White Moon or Knight of Mirrors (only one underlined answer required; accept one of Caballero de la Blanca Luna or Caballero de los Espejos)

Second Half

(Tossup 9) **This author claimed that "I bathed in the Euphrates when dawns were young" in a poem in which he states that "my soul has grown deep like the rivers." In another poem, this writer asked "does it explode?" and "does it (*) dry up like a raisin in the sun?" while considering "a dream deferred."** "The Negro Speaks of Rivers" and "Harlem" are by, for ten points, what poet of the Harlem Renaissance?

Answer: Langston Hughes (accept James Mercer Langston Hughes)

(Bonus 9) Answer the following about C. Auguste Dupin, a recurring character from the stories of Edgar Allan Poe, for ten points each.

Part 1: Though he does not officially have this job, Dupin is considered one of the first literary characters with this profession. While performing this job, Dupin solves "The Mystery of Marie Rogêt."

Answer: private detective (accept armchair detective; accept ratiocinator or ratiocination; prompt on answers describing "solving crimes")

Part 2: Dupin first appears in this short story by Poe. In this story, Dupin discovers that Madame L'Esplanade and her daughter have been killed by an orangutan.

Answer: *The Murders in the Rue Morgue*

Part 3: In another story, Dupin tricks a government minister in order to find one of these objects, which had been "Purloined" from the French queen.

Answer: letter (accept The Purloined Letter)

(Tossup 10) **The Mesha Stele records that this kingdom's King of Omri was defeated in battle by the Moabites. King Jehu took over this kingdom in a coup where he killed all the sons of Ahab. This kingdom, which was deported and conquered by the (*) Neo-Asyrian empire, was founded by the House of Jeroboam. For ten points, name this Iron age kingdom governed from Samaria that, along with Judah, was a successor of a kingdom ruled by Solomon and David.**

Answer: Kingdom of Israel (accept Samaria before read; do not accept or prompt on Judah or Judeah)

(Bonus 10) The Hay-Bunaru-Verilla Treaty paved the way for the construction of this landmark. For ten points each:

Part 1: Name this object constructed by John Stevens that linked the Atlantic and Pacific Oceans. This object was returned to its home county by the Carter-Torrijos Treaty.

Answer: Panama Canal

Part 2: Martyrs Day celebrates students that were killed during a 1964 protest against the Panama Canal, which began after one of these objects was torn by police.

Answer: a Panamanian flag

Part 3: The United States invaded Panama during Operation Just Cause, which overthrew this Panamanian dictator. This general annulled an election in which he was defeated by Guillermo Endara.

Answer: Manuel Noriega

(Tossup 11) **The case *Dettmer v. Landon* concerned a person of this faith attempting to own ritual knives in jail. Historian Ronald Hutton called this faith "the only full-formed religion which England can be said to have given the world." This (*) faith whose practitioners are organized by covens often worships figures of the Horned God and Triple Goddess. For ten points, name this Neo-Pagan religion whose members practice Witchcraft.**

Answer: Wiccan [Accept Pagan Witchcraft before mentioned]

(Bonus 11) Koans are deliberately confusing statements from this religion meant to help adherents go beyond reason. For ten points each,

Part 1: Name this Asian religion that focuses on letting go of worldly attachments. The "Zen" branch of this religion emphasizes meditation.

ANSWER: Buddhism

Part 2: In Buddhism, the ultimate goal is to reach this state of enlightenment. This state frees beings from the cycle of *samsāra*.

ANSWER: Nirvana [Accept Nibbana]

Part 3: One major branch of Buddhism is this one, which has a name meaning "The Great Vehicle". Unlike its smaller counterpart, this branch of Buddhism believes in celestial beings.

ANSWER: Mahāyāna Buddhism

(Tossup 12) **This figure sent the serpent Delphyne to watch over some body parts in the Cilician Caves. In one myth, this figure was distracted by a disguised Cadmus playing Pan's pipes. In that same myth, this figure ripped the sinews from a certain god's legs after stealing a certain weapon. This figure fathered the (*) cattle guardian Orthrus, as well as the multi-headed dog Cerberus. This monster was finally buried under Mount Etna after Zeus struck him with a thunderbolt. For ten point, name this giant Greek monster who mated with Echidna.**

ANSWER: Typhon

(Bonus 12) In this text, Hanuman leads his monkey army against the demons. For ten points each,

Part 1: Name this text that describes how a prince rescues his love Sita from the clutches of Ravana, the king of Lanka. This Sanskrit text is generally attributed to Valmiki.

ANSWER: the Ramayana

Part 2: The *Ramayana* is a text of this third-largest religion in the world. This South Asian religion follows the teachings of the *Upanishads* and the *Mahabharata*.

ANSWER: Hinduism

Part 3: In the *Ramayana*, this fire god vouches for Sita's chastity by protecting her while she walks over coals. This brother of Indra was more prominent in the earlier Vedic pantheon.

ANSWER: Agni

(Tossup 13) **Characters in this novel include captain Rawdon Crawley, who is arrested for failing to pay debts after the Battle of Waterloo. This novel takes its name from a city found near the Valley of the Shadow of Death in John Bunyan's *The (*) Pilgrim's Progress*, and follows Amelia Sedley and Becky Sharp. For ten points, name this "Novel Without a Hero" written by William Makepeace Thackeray.**

Answer: *Vanity Fair: A Novel Without a Hero*

(Bonus 13) For ten points each, answer the following about the novel *Robinson Crusoe*:

Part 1: This British author of *Moll Flanders* wrote *Robinson Crusoe*.

Answer: Daniel Defoe

Part 2: Crusoe befriends this captive who escapes from a group of cannibalistic natives. Crusoe names him after the day of the week on which this man is first encountered.

Answer: Friday

Part 3: *Robinson Crusoe* so directly inspired this author's moral tale *The Swiss Family Robinson* that this writer named the book after Crusoe's first name.

Answer: Johann David Wyss

(Tossup 14) **This leader ordered an ill-advised plot to strengthen malnourished children with blood transfusions. This leader issued Decree 770, which outlawed abortion and contraceptives. In 1971, this leader gave the July Theses speech. This leader came to power following the death of (*) Gheorghe Gheorghiu-Dej. For ten points, name this Romanian dictator who was executed with his wife Elena on Christmas day 1989.**

Answer: Nicolae Ceausescu

(Bonus 14) Richard Neville, the Earl of Warwick, was known as the "kingmaker" during this conflict. For ten points each,

Part 1: Name this conflict between the House of Lancaster and House of York. This conflict is named for the symbols used to represent the two houses in the conflict.

Answer: Wars of the Roses

Part 2: The Wars of the Roses culminated with this battle, during which Richard III was killed. This battle was long believed to have taken place at Ambion Hill in Leicestershire.

Answer: Battle of Bosworth Field

Part 3: This first Tudor king rose to power after the Battle of Bosworth Field. This ruler put down a rebellion led by the pretender Lambert Simnel during the battle of Stoke Field.

Answer: Henry VII

(Tossup 15) **This thinker called organized faith the most fundamental human institution in *The Elementary Forms of the Religious Life*. This thinker illustrated different forms of self-harm, such as Anomic and Altruistic, in the work *Le Suicide*. With Marx and Weber, this (*) Frenchman is given credit for founding the modern field of sociology. For ten points, name this French sociologist who invented the term "Collective consciousness" in *The Division of Labour in Society*.**

Answer: Emile Durkheim

(Bonus 15) The breakup of this landmass first began during the Permian period. For ten points each:

Part 1: Name this supercontinent with a Greek name present during the late Paleozoic era and early mesozoic.

Answer: Pangaea

Part 2: Further proof for Pangaea came from finding fossilized remains of flowers in the Arctic island of Svalbard, a possession of this Northern European nation.

Answer: Kingdom of Norway

Part 3: After the breakup of Pangaea, the continents of Gondwana and Laurasia were separated by a sea named for this consort of Oceanus, a goddess who led the Oceanid nymphs.

Answer: Tethys

(Tossup 16) **The Siemens process purifies this element through vapor deposition. When bonded to calcium, this element can form the very hard compound of carborundum. This element is bonded to four atoms of oxygen in quartz. This element can act as an (*) n-type or p-type semiconductor when doped with phosphorus and boron respectively. For ten points, name this element that is used in computer chips, whose atomic symbol is Si.**

Answer: silicon

(Bonus 16) These materials emit a magnetic field in the Meissner effect, for ten points each.

Part 1: Name these materials that display zero electrical resistance.

Answer: superconductors (accept superconductivity)

Part 2: The penetration depth of a magnetic field into a superconductor is named for this scientist, who also names a set of "dispersion forces" that are a subset of the van der Waals interactions.

Answer: Fritz London (accept London dispersion forces; accept London penetration depth)

Part 3: Superconductivity requires the pairing of electrons into Cooper pairs through interactions with these quasi-particles that represent the vibrational modes of a lattice.

Answer: phonons

Tiebreaker

(Tossup 17) A character created by this author suffers from a miscarriage after going horseback riding in Central Park and plans to move to Brazil with her fiancé, the diplomat Jose Ybarra-Jaegar. (*) Harper Lee helped this writer, her childhood friend, collect notes for a "nonfiction novel" about the murder of the Clutter family, titled *In Cold Blood*. Holly Golightly is the main character of a novella by, for ten points, what author of *Breakfast at Tiffany's*?

Answer: Truman Capote (accept Truman Garcia Capote; accept Truman Streckfus Persons)

(Bonus 17) A certain Nordic country is known for a long type of poem. For ten points each:

Part 1: Name this island country, whose descendants can still read the poems in question from over 500 years ago.

Answer: Iceland

Part 2: These poems are given what four letter term, not to be confused with the eddas?

Answer: saga

Part 3: One of the sagas describes a voyage to Vinland, which is thought to have been in this modern-day country's province of Newfoundland and Labrador

Answer: Canada