

### Playoff Round 3: We Are the Trivia Makers

1. In a linearized system, one can use its eigenvalues to determine the behavior of trajectories near any critical point. When a vector is the derivative of a mapping from  $\mathbb{R}^m$  ( $\mathbb{R}$  to the  $m$ ) to a scalar, it is square and symmetric and is called a Hessian Matrix. Formed by the differentiation of a vector with respect to another vector, FTP, name this square matrix, which contains the partial derivatives of all  $n$  equations in a system with respect each of the system's  $n$  variables.

Answer: Jacobian Matrix

2. The body of Gray Arundel Leakey was discovered years after this event, half eaten. Dedan Kimathi assumed power of what was described as the "winds of change" by Harold MacMillan. After the massacre at Lari in March 1953, this rebellion among the Kikuyu lost much of its popular support. For 10 points, name this African rebellion that was partly-led by Jomo Kenyatta.

Answer: Mau Mau

3. He was supposedly inspired by a Welsh buccaneer named Henry whose treasure is still believed to be buried somewhere on Bimini. When he became governor of Jamaica, he was well-known for his flamboyant dress, his long wavy black hair, and his penchant for standing with one knee raised. 250 years later, he would be honored by Sugar Ray, largely because his name sort of rhymes with the phrase "Every Morning." For 10 points--what is this brand of spiced rum by Seagram's named for a pirate?

Answer: Captain Morgan

4. Both *The Martian* and *Peter Ibbetson* were written within five years of his most successful work, which focused on the life of artists in Paris. He was an illustrator himself and his collaborations with Thackeray and work on Punch were particularly memorable. But he is most famous for sparking a "hat rage" with a novel about Little Billee, the evil Svengali, and a titular model transformed into a fabulous singer through hypnosis. FTP identify this English novelist who wrote *Trilby*.

Answer: George Du Maurier

5. It feeds four magical stags, while an eagle and a hawk sit on its top. Surrounded by three wells at its base-Hvergelmir, Mímisbrunnr, and Urðarbrunnr--the Norns use the latter to nourish and preserve it from decay. Formed out of Mimir's body and constantly traversed by the squirrel Ratatosk, Nídhogg gnaws on its ash roots. FTP identify this enormous tree that supported the universe in Norse myth.

Answer: Yggdrasill

6. Sharp-eyed viewers of *Star Trek: Deep Space 9* could notice a model of it on the shelves on the back wall of Benjamin Sisko's office. Begun with *Unity* and *Zarya* in 1998, it has since added *Zvezda*, the habitat module, and *Destiny*, the laboratory module. Now larger than *Skylab* or *Mir*, it is visible to the naked eye from many locations on earth as a bright morning star. For 10 points--name this multi-national research facility in orbit above the earth.

Answer: International Space Station

7. Chances Peak, in the southern hills above the still-active Soufrière Hills, is the highest point. First colonized by Sir Thomas Warner in 1632, this eleven by seven mile island lies 27 miles southeast of Antigua. A British crown Colony, a strong independence movement has existed since the late '70s. For 10 points, name this often volcano wrecked island with capital at Plymouth.

Answer: Montserrat

8. Less sensational historical events such as the death of Ines de Castro are interwoven into the poem, and its mythological machinery opposes Bacchus, who represents the Muslim world, with Venus, whose divine love protects the titular people. This aid is particularly crucial during an episode in the Indian Ocean that threatens to destroy the fleet of its primary protagonist Vasco de Gama. FTP identify this epic poem by Luis de Camoes that purports to elevate the achievements of the Portuguese people.

Answer: The Lusiads or Os Lusiadas

9. Born with the last name Danielsen, this psychologist founded the *American Journal of Psychoanalysis* after being kicked out of the New York Psychoanalytic institute in 1941. Originally studying with Karl Abraham her works such as *Our Inner Conflicts* and *Feminine Psychology* disputed the idea of penis-envy and argued for a more nuanced, empowering interpretation of female development, and a shift in psychoanalytic treatment to a child's anxiety about isolation. FTP identify this psychologist perhaps best known for her volume *The Neurotic Personality of Our Time*.

Answer: Karen Horney

10. He worked on a series of sacred paintings for the Scuola di San Rocco that overwhelmed Ruskin who devoted pages to it. He painted by making small wax models, which he arranged on a stage and experimented with light and shade. This method is clear in works like *The Finding of the Body of St. Mark*. Titian's influence on him can be seen in *Cain and Abel* and *Susanna and the Elders*. His works include *Moses Striking the Rock* and *Miracle of the Slave*. For 10 points, name this painter of *The Martyrdom of St. Catherine* and *The Last Supper*, best known for his nickname derived from his father's profession.

Answer: Jacopo Robusti Tintoretto (either)

11. Governor Frank O'Bannon proclaimed its anniversary a state holiday in 2000. Manasseh Cutler pushed for its creation to provide for a specific plan of governance. Cutler worked with Nathan Dane to compose this bill, originally laid out in 1784 by Thomas Jefferson in his *Report of Government for Western Lands*. Creating guidelines for the admission of new states, this is, for 10 points, what 1787 law that organized the territories of Ohio, Indiana, Michigan, Illinois, Wisconsin, and Minnesota.

Answer: Northwest Ordinance

12. Jonathon Richardson's *An Account of Some of the Statues, Bas-reliefs, Drawings and Pictures in Italy* disseminated knowledge of it. Related in book ii of the *Aeneid*, Pliny stated that it stood in the palace of Titus in Rome and was designed by the sculptors Hagesander, Polydorus, and Athenodorus of Rhodes. A cast of it at Dresden came to the attention of Winckelmann who saw it as a supreme symbol of moral dignity of the tragic hero. For 10 points, name this sculpture showing a man being crushed to death by snakes that sparked a debate between Winckelmann and Lessing.

Answer: Laocoon

13. They presume L-S coupling, so for heavy elements, they do not always hold true, as the "j-j coupling" scheme agrees more closely with experimental results. Though they number three, they are often stated as one rule: "In orbitals of identical energy, electrons remain unpaired if possible in order to minimize electron-electron repulsion." FTP, name this set of rules, named for a German spectroscopist, which is key in determining how electron orbitals are populated.

Answer: Hund's Rules

14. His older brother Glenn is currently a coach with the Dodgers, and he has had but one functioning kidney since he was six months old, which forced him to sign a medical waiver to play college baseball at Arizona. Despite the fact that he was drafted by the Reds, selected by the Marlins in the expansion draft, and then traded for Gary Sheffield in 1993, on May 1, 2002, he broke Dennis Eckersley's record for saves with one club. For 10 points--name this San Diego Padres' closer.

Answer: Trevor Hoffman

15. The novel ends with the protagonist rocking back and forth in her chair, reflecting on her rise to Broadway stardom as an actress in such works as *Under the Gaslight*. It begins on a train to Chicago and features an escape to Canada with a married man, and a reflection on labor problems in New York at the turn of the century. Though Charles Drouet first spots the title figure it is George Hurstwood who destroys himself trying to woo her. FTP identify this novel written in 1900, a work by Theodore Dreiser.

Answer: Sister Carrie

16. It is used in arthropod wound healing and immune responses and is the main component of cuttle ink, but it is best known for having the properties of an amorphous semiconductor. It can conduct many different forms of energy, such as ultraviolet radiation, and dissipate them in the form of heat. Formed from the oxidation of tyrosine, FTP, name this pigment, which, in humans, makes the retinas, hair, and skin appear dark.

Answer: Melanin

17. Phalereus designed a statue to commemorate his deeds that was erected in the 1950s. The husband of Gorgo, when his enemy demanded that he "deliver up" his arms, he responded "come and take them." Ordered crucified by Xerxes, this son of Cleomenes I was told that Sparta would either lose its king or be destroyed so he accepted death at the hands of the Persians. For 10 points, name this Spartan king killed at Thermopylae.

Answer: Leonidas

18. His most famous idea had been postulated by Herder and Humboldt in the 18th century\* but his formulation of it in the 1940s argued that that the origin of ideas is part of (or influenced by) a particular grammar and differs as grammars differ. Also well known for his studies of Hebrew much of his research followed in the footsteps of his mentor at Yale and focused on Native American languages, particularly Hopi. FTP identify this linguist best known for arguing that culture basically equals language in a hypothesis named for him and Edward Sapir.

Answer: Benjamin Whorf (if someone buzzes with Sapir at this point look at them quizzically and say "it could have been the other one" and then give them credit)

19. Lucy Shepherd plays an impromptu trombone version of this song as her father exits the room and despite the belief of Dave Kovic that it is an ode to his cleanliness in a shower version of the song, it actually traces its origins back to a Gaelic air. Played by the U.S. Marine Corps Marching Band since 1837, this is, for 10 points, what song played at official ceremonies featuring the U.S. President.

Answer: Hail to the Chief

(Note: Lucy Shepherd is the daughter of Michael Douglas' character in *The American President* and Dave Kovic is the main character in *Dave*)

20. Known for his temper, after watching a performance of one of his most famous works he beat the conductor with the lid to a virginal, yelling "too slow!" His service of the Earl of Carnarvon at Cannons offered him time to compose his *Esther* and the masque *Acis and Galatea*. Better known for an incident with a bassoon player, his best known compositions include *Julius Cesaer* and *Israel in Egypt*. For 10 points, name this composer of *Messiah*.

Answer: George Frederick Handel

21. Its Cordillera de Amambay runs north and south before turning east as the Serra de Maracaju. Its highest point is Mount San Rafael in the San Rafael range. The Verde and Monte Lindo flow through this

nation's Northern Chaco region and the Pilcomayo serves as the largest tributary of its namesake river. For 10 points, name this South American nation with capital at Asuncion.

Answer: Paraguay

22. Though his later career was cut short, he had begun composing witty original verse inspired by 17th century writers including "Heaven" and "Dust." Often identified with the Georgian school, other works include "Grantchester" and "The Great Lover." But he is most famous for writing the antithesis of Owen and Sassoon's WWI poetry, much of which was published in the volume 1914. FTP identify this poet who died of septicemia on his way to the front and penned the idealistic pro-war poem "The Soldier."

Answer: Rupert Brooke

23. Big Bird's teddy bear was named for him, in part because of his fondness for teddy bears. A devout Hawkeye football fan, he was raised on a farm by his mother and his uncle Ed and his lack of visual acumen was made up for by his near psychic ability to predict the arrival of choppers carrying wounded. For 10 points--name this Iowan, the company clerk of the 4077th Mobile Army Surgical Hospital.

Answer: Corporal Walter Eugene "Radar" O'Reilly (accept either)

24. It was bought from Queen Joan of Provence and was not returned to France until the Revolution. Petrarch described it as "a sewer where the muck of the universe collects" despite the emergence of a Sienese-influenced school of art with notables like Simone Martini and the famous Saint-Benezet bridge. For 10 points, name this city purchased by Clement VI that became the seat of the papacy during the second Babylonian captivity.

Answer: Avignon

25. Charles Louis, the son of the elector palatine Frederick V received the Rhenish Palatinate. The independence of the United Province of the Netherlands and the Swiss Confederation were confirmed and the Edict of Restitution was overturned in favor of the Peace of Augsburg. Recognized as a fundamental law of the German Constitution and the basis of subsequent treaties until the dissolution of the empire in 1806, this is, for 10 points, what 1648 treaty that brought an end to the Thirty Years War.

Answer: Peace of Westphalia

26. His early research involved studies on carbon dioxide's infrared absorption with regard to pressure, and starting in 1913, studied measurement of ionization potentials in gases. He then began his most famous work involving the relationship between spectral lines and the energy losses of electrons that collide with atoms. FTP, name this German physicist, who with James Franck won the 1925 Nobel Prize in Physics for proving the existence of Bohr's stationary energy states, who shares his name with an inverse second.

Answer: Gustav Ludwig Hertz

Boni

1. Identify these related works from clues FTPE:

(10) This 1954 work is a radio play focusing on the village of Llareggub and contains Welsh antics typical of Dylan Thomas' writings.

Answer: Under Milk Wood

(10) In this novel Jake Donaghue's life is the focus, it was written by the late Iris Murdoch.

Answer: Under the Net

(10) Geoffrey Firmin's alcoholic ass is the main character in this 1947 Malcolm Lowry work set in Mexico.

Answer: Under the Volcano

2. For 10 points each, given a signature element of a 1990s television show, name the show on which you would find it.

(10) A dry-erase board with last names in red and black.

Answer: Homicide: Life on the Streets

(10) Your Moment of Zen

Answer: The Daily Show

(10) Episode titles beginning with the phrase "The One With..."

Answer: Friends

3. Name these related painters, for 10 points each.

(10) He painted large "battle-pieces" which were admired by Napoleon. These include *The Battle of Marengo* and *Morning of Austerlitz*.

answer: Antoine-Charles Horace "Carle" Vernet

(10) This student of Vernet painted *The Death of Sardanapalus*, *Massacre of Chios*, and *Barque of Dante*.

answer: Ferdinand-Victor-Eugene Delacroix

(10) This other student of Vernet painted *Light Cavalry Officer*, *The Mad Kidnapper*, and *Raft of the Medusa*.

answer: Jean Louis Andre Theodore Gericault

4. The younger son of Sven Forkbeard, he came to prominence fighting with his father in England. For 10 points each:

(10) Name this king who battled with Edmund II "Ironside."

answer: Canute (Cnut)

(10) Cnut defeated Edmund in 1016 at this battle. He secured Mercia and Northumbria and became King of all England after Edmund's death.

answer: Assandun or Ashington

(10) In 1017 Cnut married Emma of Normandy, the former wife of this famously unprepared king.

answer: Ethelred the Unready or (correctly) Ethelraed Unraed ("ill-advised")

5. Identify the following about an economist and his work FTP:

(10) After succeeding Leon Walras at Lausanne this man published his first important work in 1896, which attempted to prove that the distribution of income across history was not random.

Answer: Vilfredo Pareto

(10) Pareto's most important economic work introduced this graphic representation which may be more associated with the work of Edgeworth—it is named for the consumer's level of preference of one level over another.

Answer: indifference curve

(10) Perhaps Pareto's most well known work is this volume that argues for the division of humanity into various intellectualized classes that are given animal names; it is this work that led to the charges of fascism leveled at him late in his career.

Answer: Mind and Society

6. Luke John Helder was apprehended in Reno, Nevada, the prime suspect in a series of mailbox pipe bombings through out the U.S. For 10 points each--

(10) Helder was arrested in Nevada by authorities acting upon a tip from whom?

Answer: His father or Cameron Helder

(10) Helder was arraigned in federal court in this state, where he began his pipe bombing spree.

Answer: Iowa

(10) Helder claimed that his pipe bombings were designed to make this shape on the U.S. map.

Answer: a smiley face

7. They are usually between 0.1 and 0.5 micrometers and usually contain proteases, nucleases, or polysaccharidases.

(5) For five points, name this organelle, which is responsible for some for the breakdown of objects in a cell.

Answer: Lysosome

(10) For ten points, contrary to popular belief, lysosomes are not used in this process, which is also known as Programmed Cell Death.

Answer: Apoptosis (do not accept necrosis)

(15) For a final fifteen points, name the special type of lysosome that is found in the tip of sperm cells and is used to clear a path to the egg.

Answer: Acrosome

8. For 10 points each, name the following about the longest river in France.

(10) This 634-mile long river

answer: Loire

(10) The Loire's main tributary that enters near a town named for it.

answer: Allier

(10) The mountains in the Central Massif where the Loire rises. It overlooks the lower valley of the Rhône River and the plain of Languedoc.

answer: Cevennes

9. Identify the following about a Belgian writer and his work FTPE:

(10) His first success was *The Princess Maleine* and other works include *The Intelligence of Flowers* and *The Blue Bird*, a mock fairy tale featuring the fairy Berylune.

Answer: Maurice Maeterlinck

(10) Maeterlinck may be best known for this work set in the court of King Arkel where Golaud and one of the title characters fights for the love of a girl found in a forest.

Answer: Pelleas and Melisande

(10) *Pelleas and Melisande* was the basis for the only opera by this Frenchman.

Answer: Claude Debussy

10. He was a Conservative, Independent, and later Labor MP, before founding the New Party in 1931. For 10 points each, name:

(10) This British politician and famous fascist.

answer: Sir Oswald Ernald, 6<sup>th</sup> Baronet Mosley

(10) In 1948 Mosley founded this racist party as successor to his New Party. It hoped to block immigration and hoped to unite Europe into a vast market to buy from and sell to Africa.

answer: Union Movement

(10) This colloquial name for members of Mosley's British Union of Fascists also refers to followers of Mussolini.

answer: Blackshirts

11. Its name is derived from the French for "hobby-horse." For 10 points each:

(10) This art style, a "revolt against smugness."

answer: Dadaism

(10) The Dada Manifesto was written by this Romanian poet.

answer: Tristan Tzara

(10) Perhaps the most famous Dadaist is this creator of *Nude Descending a Staircase* and some ready-mades.

answer: Marcel Duchamp

12. Name these integral transforms, FTPE.

(10) Useful in solving linear ordinary differential equations, especially those encountered when analyzing circuits, it translates certain complicated operations into algebraic operations.

Answer: Laplace Transform

(10) Used to glean images from CT scans, this noble transform is very good at extracting lines and curves from "noisy" images.

Answer: Radon Transform

(10) A special case of the Laplace Transform, it is used to break waves into their sine and cosine components

Answer: Fourier Transform

13. Identify the following about Dragons from Greek Myth from a description

Hera's golden apples were guarded by the Hesperides and this large dragon who was eventually slain by Heracles.

Answer: Ladon

(10) One of the Hekatonchires, this father of the Sphinx and son of Tartarus was defeated by Zeus and cast under Mt. Aetna where he powers the volcano.

Answer: Typhon

(10) During his founding of Thebes this hero slew a dragon sacred to Ares and sowed its teeth to form allies for his future endeavors.

Answer: Cadmus

14. Given a description of a memorable game seven, name the year it occurred in for five points and the winning team for an additional five points.

- (5/5) Despite blowing a 17-point lead, Bill Russell rallies his team in his final game for his 11th NBA title and second as a coach.

Answer: 1969 Boston Celtics

- (5/5) Chris Osgood and Jon Casey throw blanks for 80 minutes before Steve Yzerman closes out the Western Conference semifinal series with a 60-foot shot from the blue line.

Answer: 1996 Detroit Red Wings

- (5/5) An injured Willis Reed scores the first four points before handing off to Walt Frazier, who turns in a 36 point, 19 rebound performance.

Answer: 1970 New York Knicks

15. Name these Vietnamese politicians from earlier in the century, for 10 points each.

- (10) As leader of the Vietnamese delegation to the Paris Conference on Indo-China, he was awarded the 1973 Nobel Peace Prize, but declined it. He served in the CPV politburo from 1955 until 1986.

answer: Le Duc Tho or Phan Dinh Khai

- (10) Leader of the Viet Minh independence movement from 1941, the city of Saigon was renamed for him.

answer: Ho Chi Minh or Nguyen That Thanh

- (10) Assassinated in 1963 as part of a U.S. backed coup, his position in the South Vietnamese government had weakened as a result of pro-Catholic sentiment. He had become Prime Minister of Vietnam in June 1954.

answer: Ngo Dinh Diem

16. Hideki Yukawa devoted himself to their study in 1937, and won the 1949 Nobel Prize for predicting their existence. FTPE:

- (10) Name this class of subatomic particles, whose constituents include pions and kaons.

Answer: Mesons

- (10) The mesons, in turn, are members of this class of subatomic particles, which also includes the baryons.

Answer: Hadrons

- (10) For a final ten points, name the massless particles that bind together the quarks in hadrons.

Answer: Gluons

17. For 10 points each, name these ditties by Saint-Saens:

(10) A “grand zoological fantasy” this work was intended only for private performance.

answer: Le Carnaval des animaux or Carnival of Animals

(10) This opera about a failed Biblical couple was produced in Weimar in 1877, but shelved until 1890 in Paris after it was banned because of its Biblical topic.

answer: Samson et Dalila

(10) Saint-Saens’ first symphonic poem, this 1872 piece was composed for the newly formed Societe Nationale.

answer: Le Rouet d’Omphale or Omphale’s Spinning Wheel

18. Identify the following African authors from a list of works FTPE:

(10) *Occasion for Loving; Something out There; and Burger’s Daughter*

Answer: Nadine Gordimer

(10) the poetry collections *Heavensgate, Limits, and Labrynths*

Answer: Christopher Okigbo

(10) *Weep Not, Child; The River Between; A Grain of Wheat*

Answer: Ngugi Wa Thiong’o

19. Name the following about Warsaw, for 10 points each:

(10) Warsaw lies on this major Polish River.

answer: Vistula

(10) This one of the city’s seven districts contains the city center.

answer: Sródmiescie

(10) The grounds of the palace at Lazienkowski park is the site of a statue of this famous Polish composer. Torn down by the Nazis in 1940, it has since been rebuilt.

answer: Frederic Chopin (who has a very long Polish name that I don’t think anyone will give, so I leave it out)

20. If secessionist efforts are successful, its proposed name for the city of 1.3 million people is Camelot. For 10 points each--

(10) What is this low-lying region of Los Angeles that seeks independence from that city?

Answer: The San Fernando Valley (prompt on The Valley)

- (10) San Fernando Valley is joined in a secessionist effort by this "city" in the heart of Los Angeles, long a metaphor for a major industry.

Answer: Hollywood

- (10) This region near the Los Angeles harbor also is seeking a secession ballot proposal has been dealt a blow in that a study found it would not be financially viable.

Answer: San Pedro

21. The city of Denver's four team nicknames don't necessarily lend themselves well to mascots, save the Broncos. But the teams have come up with clever animal fill-ins for their less than animated team names. For 10 points each, name the creature that is:

- (10) Dinger, for the Colorado Rockies

Answer: dinosaur or triceratops

- (10) Howler, for the Colorado Avalanche

Answer: sasquatch or Bigfoot or Yeti

- (10) Rocky, for the Denver Nuggets

Answer: Mountain Lion

(The Denver Broncos mascot, Thunder, is a real live horse.)

22. 30-20-10. Name the American military man.

- (30) After penning *From the Danube to the Yalu*, from 1954-66, he served as the President of the Citadel.
- (20) From May 1952 to October 1953, he served as supreme commander of UN Forces in Korea.
- (10) After serving as commander of the U.S. 5th Army in North Africa, he headed the Allied campaign in Italy.

Answer: Mark Wayne Clark

23. Name these Wagner operas, for 10 super-points:

- (10) Based on works by Heine and Marryat, this work tells of a sea captain who must sail until redeemed by the love of a woman faithful. Senta is eventually ready to die for him and everything ends up relatively well.

answer: Der fliegende Hollander or The Flying Dutchman

- (10) Torn between conflicting demands of carnal Venus and virginal Elisabeth, the title character dies before absolution arrives from Rome.

answer: Tannhauser und der Sängerkrieg auf der Wartburg

(10) The title couple drink some love potion and slight Mark of Cornwall. Then they die.

answer: Tristan und Isolde

24. Identify the following about a famous anthropologist FTPE:

(10) She had a long affiliation with the American Museum of Natural History, *Blackberry Winter* is an early autobiography, while her study of Balinese natives was done with her then husband Gregory Bateson.

Answer: Margaret Mead

(10) This is Mead's most famous work which has come under criticism over the years for its over-reliance on observation.

Answer: Coming of Age in Samoa

(10) Another important scholarly collaboration for Mead was this 1971 work written with James Baldwin, which tried open up a dialogue about prejudice.

Answer: The Rap on Race

25. Identify the teller of these Canterbury Tales from a short description of the story FTPE:

(10) This tale ends with Damyan in a pear tree, where he hides from the old knight January, as he cavorts with young May.

Answer: Merchant

(10) In this work an Arthurian knight is punished for ravaging a young maiden and must find out "what women most desire."

Answer: Wife of Bath

(10) John and Alan come to the Miller SimkinUs house to reclaim their stolen grain and are successful.

Answer: Reeve

26. Name the type of chemical bond given a description, FTPE.

(10) The first covalent bond formed between two nuclei is always this kind of bond, which exhibits cylindrical symmetry to the internuclear axis.

Answer: Sigma bond

(10) The second and third bonds are always this type, which exhibits bimodal planar symmetry.

Answer: Pi bond

(10) Formed by the sideways overlap of two d orbitals, this type of bond has a "sausage roll" shape.

Answer: Delta bond