# PARFAIT III Round 13 

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## 1 Berkeley Tossups, Round 13

1. The director of this film at one point planned to show the movie in one theater for ten years, and told his screenwriter that if he died before finishing it, George Lucas would take over; Lucas was in fact originally scheduled to direct the script by John Milius. Since the Phillippines required the set to be demolished, the director blew up the set with explosives and showed this over the credits in the initial run, but denied it was intended as an alternate ending where Willard calls in an airstrike on the compound where Kurtz is holed up. For ten points, what is this 1979 movie directed by Francis Ford Coppola?

## Answer: Apocalypse Now

2. The name's the same: a fractal curve formed by taking a right turn and then at each iteration duplicating and complementing the sequence and adding it to the original with a right turn in between; the original developers of the speech-recognition software NaturallySpeaking; the emblem of Ljubljana, Slovenia; a variation of the Sicilian Defense characterized by g6 on Black's fifth move; in Azure, one of the Four Symbols of Chinese astronomy; Smaug and Norbert in The Hobbit and Harry Potter, respectively; and the only non-real creature in the Chinese zodiac. For ten points, what is this mythological creature, most famously slain by Saint George?
Answer: dragon
3. One side in this conflict produced coins with the name of Poppaedius Silo, one of the leaders of the coalition, and showing warriors swearing an oath on a sacrificial pig, a theme often used by the other side. Gnaeus Pompeius, father of Pompey, won a key victory in the north at Asculum, while the assassination of Marcus Livius Drusus set the initial conditions for the war. The winning side granted two concessions, the Lex Plautia Papiria and the Lex Julia, which essentially fulfilled the initial demands of the Italian allies. Seeing the rise to prominence of Lucius Cornelius Sulla, for ten points, what is this 90-88 BCE war which saw Rome's allies revolt after being denied the franchise?
Answer: Social War or socii war or Marsic war (prompt on "Italian" war)
4. Though he gained military success early in his reign by annexing the kingdoms of Baglana and Bundelkhand and capturing the Deccan kingdoms of Bijapur and Golconda, he suffered setbacks against the Uzbeks in Balkh and the Safavids in his attempt to take Kandahar. On orders from his father, he began the garden near Srinagar which eventually became his Shalimar Garden. Though he preferred his son Dara Shukoh as heir, he was imprisoned in the Agra Fort, which he had rebuilt in white marble, by his son Aurangzeb, who eliminated his rivals to take power. For ten points, who was this Mughal emperor, son of Jahangir, who is most famous for building the Taj Mahal?

## Answer: Shah Jahan (or Prince Khurrum Shihab-ud-din Muhammad)

5. Its last line is very similar to a line from Keats' "Keen Fitful Gusts," and its first line is entirely monosyllabic, unusual for a poem in iambic tetrameter. Its author commented on the beginning of its second stanza, "I was riding too high to care what trouble I incurred," possibly commenting on its frequently being perceived as a commentary on suicide. That author also called it in a letter to Louis Untermeyer "my best bid for remembrance", and
wrote it the morning after finishing his long poem "New Hampshire". Its predominance of sibilant consonants evokes "the sweep of easy wind and downy flake". For ten points, what is this Robert Frost poem in which the speaker has "miles to go before I sleep"?

## Answer: Stopping by Woods on a Snowy Evening

6. An archaic ritual called the malkot would occasionally be performed the day before this holiday, while in the 11th century Rabbi Meir ben Samuel controversially altered the main prayer recited at the evening services at the beginning of this holiday so that it covered the time period in the upcoming year rather than the year just passed. That prayer, the Kol Nidrei, must be recited before sunset the day before the tenth of Tishri, when traditionally only white is worn and total fasting is required. For ten points, what is this most solemn of Jewish holidays, the Day of Atonement?

## Answer: Yom Kippur

7. One character used to be capable of dancing "the farandole, the fling, the brawl, the jig, the fandango and even the hornpipe." A second answers to "Mister Alber" and is guessed to be either eleven, sixty, or seventy years old. Another character mistranslates "very good" into "tray bong", and once gives his name as "Adam", while, in attempting to guess the name of a fourth character, calls him first "Abel" and then "Cain". The two main characters refer to each other as "Didi" and "Gogo", and consider hanging themselves from the one tree present. For ten points, what is this play where, at the end of each of the two acts, the Boy comes to tell Vladimir and Estragon that the title character will not be arriving?

## Answer: Waiting for Godot (En attendant Godot)

8. Bob and Ken Forsch are the only pair of brothers to accomplish this feat, and June 29, 1990 is the only time it has been done twice on the same day. A rule change in 1991 deprived many players of this feat, most famously Andy Hawkins and Matt Young, who each lost their respective games. Steve Arlin has come the closest to accomplishing this feat as a Padre, and more famously, no Met has ever accomplished this feat either. It happened three times in 2007, by Clay Buchholz, Justin Verlander, and Mark Buehrle, and Johnny Vander Meer remains the only man to do it twice back-to-back. For ten points, what is this baseball achievement which Nolan Ryan has seven of?
Answer: no-hitter (do not accept or prompt on "perfect game")
9. To commemorate the Treaty of Utrecht ending the War of the Spanish Succession, he composed the 1713 Ode for the Birthday of Queen Anne. One of his works, which contains the chorus "All we like sheep," had a libretto written by Charles Jennens, who also wrote four of his other oratorios, including Saul and L'Allegro. His most famous oratio's premiere was delayed by Jonathan Swift, who requested that the name be changed to A Sacred Oratorio, but it eventually premiered in Dublin in April 1742. For ten points, who is this composer known for the Water Music, Music for the Royal Fireworks, and the aforementioned Messiah?

## Answer: George Frideric (or Georg Friedrich) Handel

10. One of the participants' sons died without heir, and so his territory was divided up between the other two participants in the Treaty of Meerssen. One of the participants
attempted to seize the territory of a second after his death, but was thwarted at the battle of Andernach by Louis the Young. One of the participants was forced into the treaty after the other two allied in the Oath of Strasbourg and he suffered a military defeat at the battle of Fontenay in 841 . That man, Lothair, received the central portion, while the other two participants, Louis the German and Charles the Bald, received the lands corresponding roughly to Germany and France. For ten points, what is this 843 treaty where the three grandsons of Charlemagne divided his territory among them?

## Answer: Treaty of Verdun

11. The Scholl reaction is a variation of this reaction where two arenes react directly, while the Gatterman-Koch reaction uses this reaction on a benzene ring with a catalyst of aluminum chloride and copper(I) chloride. Pyridine can be used to increase the reactivity of one variant of this reaction. In another variant of this reaction, the product is more nucleophilic than the reactant, causing unwanted alkylations; to avoid this, an acylation can be performed instead and then the Clemmensen reduction performed to obtain the alkylated product. For ten points, what is this reaction where an aromatic ring is reacted with an alkyl or acyl halide?

## Answer: Friedel-Crafts reaction

12. He says that "one human specimen is sufficient for understanding the rest. People are trees in a forest; no botanist would study every individual birch tree" when his conversation partner criticizes his self-admitted lack of artistic understanding. He feels that his life is "running on rails" when he is staying at Anna Odintsova's house, which he dislikes. In arguing with his friend's father Pavel, he says "what foreign - and useless words" are "aristocracy, liberalism, progress, principles", espousing a philosophy he has also convinced his friend Arkady Kirsanov to follow. For ten points, who is this nihilist character at the center of Ivan Turgenev's Fathers and Sons?

## Answer: Yevgeny Bazarov

13. The number's the same: the permutation group on this number of elements is the only one with an outer automorphism that is not non-trivial; the total number of convex regular 4-polytopes; the smallest number with 2 and 5 as quadratic nonresidues; the smallest composite number such that the concatenation as well as the sum of its prime factors are prime; the number of nonzero entries in the matrix defined by the Levi-Civita symbol epsilon sub ijk; the number of elements in the smallest non-Abelian group, S3; the denominator in the value of zeta of 2 ; and the smallest perfect number. For ten points, what is this number, the third triangular number?

## Answer: 6

14. Winners of his eponymous prize include Albie Sachs in 1991 for Soft Vengeance of a Freedom Fighter and Charles van Onselen in 1997 for The Seed is Mine. He recorded his memories of his years with his first wife, Dorrie Lusted, in his 1969 novel Kontakion For You Departed. His friend Laurens van der Post helped finance the political party he founded and Post's 1934 novel In a Province influenced his most famous novel. In that novel, the main character learns that his son Absalom has been arrested for the murder of Arthur Jarvis, the son of the neighbor in Johannesburg of Stephen Kumalo. For ten points, who is this South African author of Too Late the Phalarope and 1948's Cry, the

## Beloved Country?

Answer: Alan Paton
15. There exist Feynman rules specifying the vertex factors for interactions of both three and four of these particles together, the only particle for which this is possible. Naively one would expect nine of these to exist, but in fact there are only eight, as the singlet state corresponding to the linear combination of each color-anticolor pair is suppressed. Like the photon, although it is spin-1, it only carries two polarization states, being massless. Deriving from the quanta of the color $\mathrm{SU}(3)$ gauge group, for ten points, what are these force carriers of quantum chromodynamics, responsible for binding quarks into hadrons via the strong nuclear force?
Answer: gluons
16. It was nicknamed the "success by scandal" when it was first shown, as the crowds in Gallery I were so large that it could barely be seen. After three weeks, it was bought sight unseen by Frederic Torrey, who had only heard of its reputation at the 1913 Armory Show, where the artist had taken it after the jury at the Salon des Indépendants requested that he paint over his name. Inspired by the photographic works of Eadward Muybridge, it was famously derided as "an explosion in a shingle factory." For ten points, what is this large Marcel Duchamp painting showing many superimposed images of the title figure in motion?

## Answer: Nude Descending a Staircase, No. 2

17. It opens with a story about Tarqinius Superbus cutting off the flowers of the tallest poppies in his garden. Before telling the story he goes on to analyze in the three following Problemata, he considers four alternate versions, comparing the situation to a child being weaned from its mother; in one variation, the father claims he is an idolator so that his son will not lose faith. It posits that the ability to have faith in the absurd is the key quality that separates the two main types of character discussed, the knight of infinite resignation and the knight of faith, as exemplified by Abraham, whose sacrifice of Isaac exemplifies the problem of the teleological suspension of the ethical. Written under the pseudonym Johannes de Silentio, for ten points, what is this work of Soren Kirkegaard? Answer: Fear and Trembling (or Frygt og Baeven)
18. In one story in Hindu mythology, Vishnu sends these creatures into Indra's palace, saying that each represents a reincarnation of Indra from a dream of Vishnu. In the story of Eros and Psyche, some of these creatures help Psyche when Aphrodite sets her a seemingly impossible task of sorting a large quantity of grains. King Cocalus, when presented with Minos' riddle, calls upon Daedalus, who solves the problem by employing one of these creatures. But their most famous story involves Aeacus, whose subjects have all died, spying a column of them under an oak tree. For ten points, what are these mythologicallycommon useful insects, who in Ovid's Metamorphoses are turned into the Myrmidons?
Answer: ants
19. He led his crack division of Pennsylvania reserves at Turner's Gap in the Battle of South Mountain, three days before Antietam where Seymour's brigade of his division was the first to engage the enemy in the East Woods. Promoted to command the Fifth Corps
after Fredericksburg, when a messenger arrived for him on June 28, 1863 in the early morning, he first thought he was being arrested. In fact, it was orders from Abraham Lincoln to promote him to command the Army of the Potomac. For ten points, who was this general who went on to defeat Robert E. Lee at the Battle of Gettysburg?
Answer: George Gordon Meade
20. In Perl, the most important command for accomplishing this is the bless command. Self is an example of the prototype-based variant of this, where a set of prototypes is cloned to achieve one of its most important functions, which theoretically can provide a way to avoid the circle-ellipse problem. In 1995, the "Gang of Four" published Design Patterns, which established many commonly-used paradigms, such as Facade, Memento, and Abstract Factory. First implemented at Xerox PARC by Smalltalk, it is characterized by the three principles of polymorphism, inheritance, and encapsulation. For ten points, what is this programming principle used by languages such as C++ and Java?
Answer: object-oriented programming or OOP
21. The title event happens to a black Yamaha motorcycle as it enters Port Sherman, Oregon. It also happens to Reason version 1.0B7, leaving a man known only as Fisheye defenseless against the glass harpoon which impales him. We first see it happen to a human when a naked Brandy shows a scroll to Da5id Meier, who is then thrown out of the Black Sun, a bar partly designed by the main character, who, according to the card he gives Y.T., is the greatest sword fighter in the world and the last of the freelance hackers, though when we first see him he is delivering pizzas for Uncle Enzo's CosaNostra Pizza. For ten points, what is this Neal Stephenson novel starring Hiro Protagonist, where the titular event refers to a complete system failure of a computer?

## Answer: Snow Crash (do not accept or prompt on "crash")

## 2 Berkeley Bonuses, Round 13

1. Answer the following questions about the clavicle for ten points each.

10 At its lateral (farther from the center) end, the clavicle articulates with the acromion of this bone.
Answer: scapula
10 This muscle is connected to the clavicle along its superior surface; at its other end it is attached to the humerus.
Answer: deltoid
10 In birds, the two clavicles fuse to form this single bone.
Answer: wishbone or furcula
2. Identify these things from topology for ten points each.

10 The fact that in $\mathbf{R}_{n}$, a set is compact if and only if it is closed and bounded, is given by this theorem.
Answer: Heine-Borel theorem
10 This is a function between two topological spaces which is bijective, continuous, and has a continuous inverse.
Answer: homeomorphism (not "homomorphism", which is different)
10 This useful theorem states that the product of any collection of compact spaces is itself compact.
Answer: Tychonoff's theorem
3. Answer these questions about everyone's favorite usurper, Wang Mang, for ten points each.

10 Wang Mang founded what short-lived empire from 9-23 AD?
Answer: Xin (or Hsin)
10 Wang Mang's rule interrupted what dynasty, which was restored by Emperor Guangwu in 25 AD ?
Answer: Han
10 This group was one of the most dangerous of the peasant rebel groups against Wang Mang's rule. They were named for a colored facial feature.
Answer: Red Eyebrows or Chimei
4. Answer these questions about people and works from the life of Sandro Botticelli for ten points each.

10 In his early life, Botticelli was apprenticed to this Florentine painter who painted the frescoes in the choir of Prato cathedral, namesake of a Robert Browning poem.
Answer: Fra Lippo Lippi or Filippo Lippi
(but do not accept Filippino Lippi; that's his son)

10 This famous Botticelli work, depicting Venus, the three Graces, Flora, and others, was painted for the townhouse of Lorenzo di Medici, his patron at the time.
Answer: Primavera
10 In 1745 , Botticelli painted a version of this scene in which the title characters bear the faces of Cosimo de Medici and his sons Piero and Giovanni.
Answer: Adoration of the Magi or Adorazione
5. Answer the following questions on binding theory for ten points each.

10 From the Greek for "carrying back," this is the general term for a word that stands in for an antecedent.
Answer: anaphor
10 Principle A of the Government and Binding theory states that anaphors are bound in its governing category, which implies that anaphors like "John believes that himself is happy" cannot take what case?
Answer: nominative
10 Sometimes called R-expressions, these are pronouns like "himself" in English or "sich" in German that must be bound by its antecedent.
Answer: reflexive
6. Identify the following things about the works of Arthur Miller for ten points each.

10 This 1947 play, directed by Elia Kazan, was Miller's first commercial success. It focuses on Joe Keller, whose business partner Steve Deever has gone to prison for a crime of Keller's.
Answer: All My Sons
10 John Proctor is a historically-based character who was hanged in 1692 and is a character in this play.
Answer: The Crucible
10 Finishing the Picture, Miller's last play before his death, is a thinly-disguised account of Miller and Marilyn Monroe's time shooting this 1961 movie penned by Miller and starring Clark Gable and Monroe.

## Answer: The Misfits

7. Fill in the missing word from Shakespeare's sonnets for ten points each.

10 "Shall I compare thee to a summer's day? / Thou art more lovely and more BLANK"
Answer: temperate (18)
10 "That time of year thou mayst in me behold / When BLANK leaves, or none, or few do hang"
Answer: yellow (73)

10 "My mistress' eyes are nothing like the sun / BLANK is far more red than her lips' red"
Answer: coral (130)
8. Identify these objects from Norse mythology for ten points each.

10 Thor needs the magical strength-boosting belt Megingjord to be able to lift this object.
Answer: Mjolnir
10 Heimdall blows this horn to signal the start of Ragnarok.
Answer: Gjallarhorn
10 Because Frey has foolishly given away his sword in order to marry Gerd, he is forced to fight the giant Beli with one of these objects.
Answer: antler or gevir, prompt on "horn" or "hornkronen"
9. Answer these questions about unusual instruments used by classical music composers for ten points each.

10 This composer, perhaps best known for Lady Macbeth of Mtsensk and his 7th Symphony "Leningrad," used a theremin in his score for the 1931 film Odna.

## Answer: Dmitri Shostakovich

10 The "Dance of the Sugar Plum Fairy" from the Nutcracker was originally written for the glass harmonica before Tchaikovsky replaced it with this newly-invented instrument, which uses piano-like keys to strike a series of metal plates.
Answer: celesta or russian name for celesta
10 Sergei Prokofiev used a saxophone in the Troika from this suite about a military officer who never existed, composed for a namesake film.
Answer: Lieutenant Kijé Suite
10. Answer these questions about the Federalist Papers for the stated number of points.

5 Under what pseudonym did Hamilton, Madison, and Jay write the Federalist Papers?
Answer: Publius
10 This Federalist Paper written by Madison is one of the most famous; it argues against the power of "factions" and advocates a large republic as the best way of dealing with them.
Answer: Federalist No. 10
10 This Charles Beard work discusses Federalist No. 10 in detail, especially focusing on class struggle and the Constitution.
Answer: An Economic Interpretation of the Constitution

5 Federalist No. 84 is notable for its opposition to this; Hamilton feared that such a construction would allow the government to assume all powers not mentioned in it.
Answer: the Bill of Rights
11. Answer these questions about the Corn Laws for ten points each.

10 This 1819 event happened at an anti-Corn Law rally in Manchester. Answer: Peterloo Massacre

10 This man was one of the leading agitators against the Corn Laws; along with John Bright, he founded the Anti-Corn Law League.
Answer: Richard Cobden
10 This political economist wrote an 1814 paper "Observations on the Effects of the Corn Laws" in which he argued that Britain needed foreign corn in order to feed its population.
Answer: Thomas Robert Malthus
12. Answer the following questions about people who inhabited North America long before all of those crazy Europeans arrived for ten points each.

10 This group inhabited the Four Corners area and is well-known for their cliff dwellings, such as those found at Mesa Verde.
Answer: Anasazi (prompt on "Ancient Pueblo")
10 This ancient Native American city, located approximately across from modern-day St. Louis, is the largest archaeological site of the Mississippian culture.

## Answer: Cahokia

10 This culture, named after the Utah river where its sites were first discovered, has a newly-discovered site at Range Creek. It also shares its name with a famous American explorer.
Answer: Fremont culture
13. Identify these tasty, tasty sugars for ten points each.

10 This most familiar disaccharide consists of a glucose and fructose with an alpha 1-6 linkage.
Answer: sucrose
10 This common triose is the simplest aldose and, in its phosphate ester form, appears as an intermediate in glycolysis.
Answer: glyceraldehyde
10 This disaccharide formed by breaking down starch consists of two glucose monomers with an alpha 1-4 linkage.
Answer: maltose
14. Answer these questions about Japan's highest literary award for ten points each.

10 The award bears the name of this master of the short story, best known for "In a Grove" and "Rashomon".
Answer: Ryunosuke Akutagawa (accept names in either order for all parts)

10 This author of Woman in the Dunes captured half of the January 1951 award for his novel The Crime of S. Karuma.
Answer: Kobo Abe
10 This author of Nip the Buds, Shoot the Kids and The Pinch-Runner Memorandum won the January 1958 award for his short story "Prize Stock".
Answer: Kenzaburo Oe
15. Answer these questions about a certain historical meadow for ten points each.

10 First, name this meadow along the Thames where a certain 1215 document was signed.
Answer: Runnymede
10 Runnymede is also home to a memorial to this US President, which is technically US territory. In the US, his grave at Arlington is marked with an eternal flame.
Answer: John F. Kennedy
10 This author wrote the poem "What Say the Reeds at Runnymede," but is perhaps better known for other poems like "If-" and "Mandalay."
Answer: Rudyard Kipling
16. Answer these questions about the Treaty of Versailles for ten points each.

10 This man, nicknamed "Le Tigre", represented France at the treaty negotiations. Answer: Georges Clemenceau

10 The Germans first received the victors' peace conditions on the anniversary of the sinking of this ship.
Answer: RMS Lusitania
10 Germany lost this city to Belgium; it would later be the site of an eponymous massacre during the Battle of the Bulge where American POWs were killed by SS troops.
Answer: Malmedy
17. Identify these events of the Olympic decathlon from some world record holders in that event (not necessarily within the decathlon) for ten points each.

10 Asafa Powell, Marion Jones, Donovan Bailey
Answer: 100 meter dash
10 Sergei Bubka, Stacy Dragila, Thierry Vigneron
Answer: pole vault

10 Randy Barnes, Natalya Lisovskaya, Ulf Timmerman
Answer: shot put
18. Answer these questions about the works of Praxiteles for ten points each.

10 Praxiteles' best-known work is this of a god with a baby deity. Answer: Hermes and the Infant Dionysus (accept "with","bearing","holding"instead of "and")
10 Praxiteles also made a sculpture known by the name of this god and Sauroctonos, or lizard-slayer, possibly referring to this god's role as a destroyer of plagues.
Answer: Apollo
10 Strabo credits Praxiteles with the decoration of this Wonder of the Ancient World, although this attribution is highly dubious, given that it was completed circa 550 BC, at least a hundred years before Praxiteles lived.

## Answer: Temple of Artemis at Ephesus

19. Answer the following questions on everyone's favorite uncertainty principle, the Heisenberg uncertainty principle, for ten points each.

10 The Heisenberg uncertainty principle is most commonly written with the uncertainties in position and momentum, but it can also be written as the product of the uncertainty in time and of this quantity.
Answer: energy
10 The generalized uncertainty principle can be used to show that a conserved quantity must commute with this operator.
Answer: Hamiltonian
10 Although the momentum is subject to the uncertainty principle, its expectation value still is equal to the negative partial derivative of the potential, a result known as this theorem.
Answer: Ehrenfest's theorem
20. Identify the Charles Dickens novel, none of which is A Tale of Two Cities, from the first line or lines for ten points each.

10 "Marley was dead: to begin with. There is no doubt whatever about that."
Answer: A Christmas Carol
10 "Whether I shall turn out to be the hero of my own life, or whether that station will be held by anybody else, these pages must show."
Answer: David Copperfield
10 "Night is generally my time for walking. In the summer I often leave home early in the morning, and roam about fields and lanes all day, or even escape for days or weeks together ..."
Answer: The Old Curiosity Shop

