

Berkeley Late Spring Tournament—I Know Kung Fu (2004)
Chicago A (Ed Cohn, Laura Kirkpatrick, Martin Deveck, Andrew Yaphe)

1. He wrote "O my soul, keep the rest unknown!" in his last poem, "He Resolves to Say No More." He wished that some "vengeful god" would call to him and explain his suffering in one of his first poems, "Hap." In between, he wrote "For Life I Had Never Cared Greatly," "During Wind and Rain," and "The Convergence of the Twain." FTP, name this poet of "The Darkling Thrush," who also wrote such novels as *The Return of the Native*.

Ans: **Thomas Hardy**

2. Its 15th book features Cipus, a discussion of the doctrines of Pythagoras, and the death of Numa. The stories of Pelops, Marsyas, and Niobe are told in book 6, while the first book includes sections on Io, the flood, and the creation of the world. The author wrote this work simultaneously with his *Fasti*, a poem on Roman festivals, but had not yet finished it when he was exiled to the Black Sea in 8 AD. FTP, name this epic poem which features numerous transformations, a work of Ovid.

Ans: **The Metamorphoses**

3. His father was the schoolmaster of the gymnasium in Simbirsk, where the future Vladimir Lenin was among his star students. An editor of the radical journal Burevestnik, he helped expose the Bolshevik Roman Malinovskii as an informer for the secret police, left the SRs for the Party of Labour, and then became Minister of Justice and Minister of War under Georgii Lvov. FTP—name this man, who then replaced Lvov to become the head of the Russian Provisional Government before his overthrow in the October Revolution.

Ans: **Aleksandr Fyodorovich Kerenski**

4. The existence of non-measurable sets, the fact that every filter is contained in some ultrafilter, and the Banach-Tarski paradox follow from it. The first is most easily proven by using an equivalent that states that if all chains in a set have an upper bound, the set contains a maximal element. For 10 points--identify this inherently nonconstructive axiom that is independent of ZF set theory but included in ZFC, equivalent to Zorn's lemma.

Ans: **axiom of choice** (prompt on **ac**; prompt on **Zorn's lemma** until "chains in a set" is read)

5. The protagonist almost gets killed by a band of smugglers, and his affair with a local woman leads to her death. The last three of the novel's five sections consist of the protagonist's journal, while the first is told by Maxim Maksimych, an old army comrade of the main character. FTP, name this 1840 book about the dissolute Russian aristocrat Grigory Pechorin, the only finished novel of Mikhail Lermontov.

Ans: **A Hero of Our Time**

6. This artist began to explore printmaking in 1960, and in 1977, inspired by an exhibit of medieval prints, created "Essence Mulberry." In 1951, she began to experiment with pouring acrylic paints directly onto unprimed canvas, to combine the spontaneity of Pollock with the physical characteristics of watercolor, in her technique of "stain painting." FTP, name this artist most famous for her 1952 painting "Mountains and Sea."

Ans: **Helen Frankenthaler**

7. In his youth, he gave his friend John Milton lessons in Dutch in exchange for lessons in Hebrew, and, after studying law at Cambridge, he became a protege of the jurist Edward Coke. His writings include *Experiments of Spiritual Life and Health*, the anti-Quaker tract *George Fox Digged Out of his Burrowes*, *A Key into the Languages of America*, and *The Bloody Tenant of Persecution*, in which he defended religious liberty. FTP, name this colonial minister who co-founded the colony of Rhode Island.

Ans: **Roger Williams**

8. He went by the name E. J. Allen during the 1860s. After his death in 1884, his sons kept his business alive, while in his later years he had turned to writing novels such as *The Spy of the Rebellion*. Born in Scotland, he moved to Illinois where he became famous for exposing a ring of counterfeiters, and later

would foil an attempt to assassinate Lincoln. The company he founded would later hire Dashiell Hammett, and was hired by Henry Clay Frick to break the Homestead Strike. FTP, name this American detective.

Ans: **Allan Pinkerton**

9. The 8th of these, Ali al-Rida, was briefly heir to the caliphate under al-Ma'mun, who may subsequently have had him killed. Such an end would not have been unusual for a holder of this hereditary post, which the Abbasid Caliphs made strong efforts to eliminate. In order to escape persecution, Shi'ites believe that the 12th, Muhammad al-Mahdi, went into "occultation," from which he will emerge near the end of time. FTP, name this position, which comes from the Arabic word for "in front of" and also describes the leader of prayers at a mosque.

Ans: **Imam** (also accept **Shi'i Imam** or equivalents)

10. In SU(5) theory, the operators corresponding to it have dimension 6 and are suppressed by the square of the mass of a gauge boson on the Grand Unified Theory scale, but it is in fact predicted by any Grand Unified Theory. The current best limits on this phenomenon have been obtained by results from Soudan II and Super-Kamiokande, and have set a lifetime of at least 5×10^{33} years on this process occurring. Necessitating violation of baryon number conservation, for ten points, what is this hypothesized process in which the lightest baryon is not stable?

Answer: **proton decay** (accept **violation of baryon number conservation** or **baryon number violation** or similar before the last sentence)

11. This entertainer wore a black leather jacket embedded with blinking light bulbs that were patterned in the shape of a keyboard during a performance of his 1989 European hit "Looking For Freedom" at a concert on top of the Berlin Wall. In the United States, he is best known for his television roles, such as Dr. Snapper Foster and Michael Knight. FTP, name this executive producer and star of the syndicated series Baywatch.

Ans: **David Hasselhoff**

12. He was born and grew up on Sardinia, which at the beginning of the 20th century was among Italy's poorest provinces. He was elected to Parliament in 1924, but the Fascist police arrested him two years later. He spent the next 10 years in a Turin jail, where he filled more than 30 notebooks with essays like "The Modern Prince" and "Americanism." FTP, name this Italian Marxist, who developed the concept of cultural hegemony.

Ans: **Antonio Gramsci**

13. Its leaders included the Kings of the Four Quarters, and its army wore a uniform of red jackets with blue trousers. First centered around Thistle Mountain and supported by the Hakka ethnic minority, it demanded a ban on slavery, alcohol, opium, and foot-binding and called for the civil service exams to be based not on the Confucian classics, but on the Bible; its leader, Hong Xiuquan, claimed to be the brother of Jesus. FTP—name this revolt that rocked China between 1851 and 1864.

Ans: **the Taiping Rebellion**

14. The main female character is touring the continent while waiting for a divorce so she can marry Michael Campbell. She falls in love with Pedro Romero, which angers the American novelist and boxer Robert Cohn, who knocks out most of the other men in the novel before leaving Pamplona. FTP, name this 1926 novel about Lady Brett Ashley and Jake Barnes, a work by Ernest Hemingway.

Ans: **The Sun Also Rises**

15. An 1842 book by Michele Amari claimed that it was a spontaneous uprising and rejected Giovanni Villani's 14th-century theory that it resulted from a plot by Giovanni da Procida, Pedro III, and Michael Paleologus. The revolt broke out on March 31 amid cries of "Death to the French!," and Pedro III of Aragon soon intervened against Charles of Anjou, who was gathering his forces at Messina. FTP—name this 1282 Easter-time rebellion against Angevin French rule of an Italian island.

Ans: **Sicilian Vespers**

16. The term microsome is applied to the vesicles formed by this organelle when a cell is disrupted. This organelle uses a signal recognition particle in cotranslational translocation of proteins. Correct folding of new proteins is facilitated using proteins such as protein disulfide isomerase and calreticulin in the interior cisternal space, or lumen. Most of the newly-synthesized proteins are then sent in transport vesicles to the Golgi apparatus. FTP name this extensive membrane-bound network whose rough portion contains ribosomes.

Ans: endoplasmic reticulum

17. This composer played with a jazz band for a year while writing his unpublished *Fantasia Concertante*. Lionel Tertis commissioned and then rejected his 1929 Viola Concerto, which was ultimately premiered by Paul Hindemith, to whom this composer would dedicate a 1963 work. His first important work, modelled on *Pierrot Lunaire*, was a setting of Edith Sitwell poems entitled *Façade*. Later works include the overtures *Scapino* and *Portsmouth Point*. FTP, name this British composer of *Belshazzar's Feast*.

Ans: Sir William Turner Walton

18. Its namesake had been appointed by James Monroe as the commissioner in charge of moving the Seminole to reservations. After John Bartlett discovered two major errors in an 1847 map by John Disturnell, the United States decided to negotiate for the Mesilla Valley, ultimately offering \$10 million of "conscience money" for 30,000 square miles of land, intended as the site for a transcontinental railroad. FTP, name this 1853 acquisition of Mexican land.

Ans: Gadsden Purchase

19. He never finished his novel *The Cheat*, while his last finished novel, *The First Rescue Party*, is set in a mine. He wrote a trilogy of psychological novels which includes *An Ordinary Life*, but is better known for such works of science fiction as *Krakatit*, which features an atomic bomb, and *The War With the Newts*. FTP, name this Czech author of *The Makropoulos Secret* and *R.U.R.*

Ans: Karol Capek

20. Archaeological sites in this country include Chan Chan, the center of the Chimu empire, and Chavin de Huantar, famous for its stone jaguar carvings. Part of its northern boundary rests on the Cordillera del Condor, according to a 1998 treaty that ended nearly forty years of conflict with its northern neighbor. FTP, name this nation whose current president, Alejandro Toledo, was elected in 2001 after the ouster of Alberto Fujimori.

Answer: Peru

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1. FTPE, answer the following questions related to an alternative rock band.

10) Though this band broke up in 1993, the first reunion concert on April 14, 2004 at the Burton Cummings Theatre in Winnipeg sold out in less than five minutes.

Ans: The Pixies

10) This member of the bands Big Black and Rapeman produced the Pixies album "Surfer Rosa," and later worked with Nirvana and PJ Harvey.

Ans: Steve Albini

10) "Debaser," the first song on "Doolittle," references this 1929 Salvador Dali and Luis Bunuel film.

Ans: Andalusian Dog or Un Chien Andalou

2. It begins with a poem in which the author's muse calls him a fool and tells him to look in his heart and write. FTP each:

10) Name this Elizabethan sequence of 108 poems.

Ans: Astrophil and Stella

10) What author of the *Arcadia* wrote *Astrophil and Stella*?

Ans: Sir Philip Sidney

10) The most famous poem in the sequence may be the 31st, which notes the sad steps with which this astronomical object climbs the skies.

Ans: the moon

3. Name these Supreme Court cases related to free expression FTP each:

10) In this 1989 case, a majority decision by William Brennan struck down a Texas law banning the desecration of the U.S. flag.

Ans: Texas v. Johnson

10) In this 1969 decision, a majority led by Abe Fortas ruled that an Iowa school district could not suspend two students for wearing black armbands to protest the Vietnam War.

Ans: Tinker v. Des Moines School District

10) Oliver Wendell Holmes, Jr., announced his "clear and present danger" test in this 1919 case.

Ans: Schenk v. U.S.

4. Answer the following on a physical chemist and his work F15PE.

15) This man's regression hypothesis is a consequence of the fluctuation-dissipation theorem. He introduced a set of reciprocal relations between flows and forces in systems out of equilibrium.

Ans: Lars Onsager

15) Onsager provided an analytical solution for the two-dimensional version of this simple model, which incorporates two possible states at each site on a lattice and an interaction energy function.

Ans: Ising model

5. Answer the following on sociologists of love, FTP each.

10) Better known as a novelist, this Frenchman with a pseudonym wrote a book called *Love* in which he compares the erotic phenomenon to the formation of crystals.

Ans: Stendhal or Marie-Henri Beyle

10) Better known as a glum-faced philosopher, this German's *Parerga and Paralipomena* includes an essay in which he suggests that the arts of women are only useful for trapping men, and that women ought to be silent in the theatre.

Ans: Arthur Schopenhauer

10) The 17th-century Moroccan Shaykh Nafzawi wrote a semi-pornographic treatise on the sexual wiles and weaknesses of women, and criticized this work for listing positions that were sure to cause more pain than pleasure.

Ans: the Kama Sutra

6. He wrote a series of books in which a poet, a professor, and an autocrat hold forth at a breakfast-table. FTP each:

10) Name this American author, who also wrote an essay on puerperal fever.

Ans: Oliver Wendell Holmes, Sr.

10) Holmes was only 21 when he became famous for this poem about the USS *Constitution*.

Ans: Old Ironsides

10) Eugene O'Neill took the title *More Stately Mansions* from this Holmes poem about a marine creature whose shell gets larger as it grows.

Ans: The Chambered Nautilus

7. Name these "end of history" theorists, FTP each.

10) His book *The End of History and the Last Man* argues that the collapse of the Soviet Union represents the ultimate world-historical triumph of liberalism.

Ans: Francis Fukuyama

10) This Russian's lectures on Hegel, collected and edited by Raymond Queneau in *Introduction to the Reading of Hegel*, inspired Sartre and are the source of Fukuyama's spurious eschatology.

Ans: Alexandre Kojève

10) Like any good atomist, this 1st-century B.C. Roman thinker, best known for his poem about the nature of things, believed that the material that made up the universe was porous and would thus eventually be torn to pieces.

Ans: Titus Lucretius Carus

8. He founded the journal *The World of Art* in 1898. FTP each:

10) Name this Russian impresario, who did his best-known work in Paris.

Ans: Sergey Diaghilev

10) In 1909, Diaghilev founded this company, in which the music and the sets were raised to equal prominence with the dancers.

Ans: the Ballets Russes

10) When this Russian painter moved to Paris in 1910, Diaghilev put him to work designing scenery for the Ballets Russes, including for the original production of Stravinsky's *Firebird*. Later, he painted the ceiling of the Paris Opera.

Ans: Marc Chagall

9. Name these twentieth-century British prime ministers FTP each:

10) This man, who later formed a mostly Conservative coalition government during the Great Depression, became the first Labour prime minister in 1924.

Ans: James Ramsay MacDonald

10) This Labour prime minister led the government that granted India and Burma their independence after unseating Winston Churchill in 1945.

Ans: Clement Attlee

10) This member of a well-known publishing family succeeded Anthony Eden as prime minister, presiding over the Profumo scandal in 1963.

Ans: Maurice Harold Macmillan

10. London bookmaker Ladbrokes recently stopped accepting bets on a decades-old wager. FTSNOP:

5) Following the finding of the Allan Hills meteorite, Ladbrokes cut the odds on whether evidence of life would be found on this planet.

Ans: Mars

10) Ladbrokes cut the odds on December 23, 2003, in anticipation of the touchdown of this lander from the Mars Express mission. It was lost, but the odds stayed cut.

Ans: Beagle 2

5) Ladbrokes stopped taking bets on Martian life on March 3rd, the day after NASA announced evidence that this compound had been present on Mars.

Ans: water

10) The NASA announcement was prompted by the findings of this Mars Exploration Rover, the twin of Spirit.

Ans: Opportunity

11. Answer the following questions about European plateaus FTP each.

10) These plateaus in south-central France are located between the Rhone-Saone corridor and Aquitaine Basin.

Ans: Massif Central

10) The Mittelland is a plateau located south and east of the Jura mountains in this country.

Ans: Switzerland

10) The Iberian Peninsula is dominated by this central plateau, where Madrid is located.

Ans: Meseta

12. He explained his dissatisfaction with the lyrical poetry of his youth in the essay "Letter of Lord Chandos." FTP each:

10) Name this German author, who wrote the libretti for a number of Richard Strauss's operas.

Ans: Hugo von Hoffmannsthal

10) Hoffmannsthal's *The Great World-Theater of Salzburg* and *The Tower* are adaptations of plays by this dramatist of the Spanish Golden Age, who is best known for *Life Is a Dream*.

Ans: Pedro Calderon de la Barca

10) In 1903, Hoffmannsthal wrote a version of this Sophocles tragedy about the sister of Orestes.

Ans: Electra

13. Name these French kings FTP each:

10) This Huguenot leader took the throne in 1589, founded the Bourbon dynasty, converted to Catholicism, and issued the Edict of Nantes.

Ans: Henry IV or Henry of Navarre or Henry III of Navarre

10) This son of Henry IV became king at the age of nine. Herod, his physician, wrote a journal describing his early life, and his reign was dominated by Cardinals Luyne and Richelieu.

Ans: Louis XIII

10) This Valois king presided over the St. Bartholomew's Day Massacre, and was succeeded by Henry III in 1574.

Ans: Charles IX

14. Answer the following questions about a Northern Renaissance artwork FTSNOP.

10) Unlike other Northern Renaissance illusionistic paintings of sculpture, the grisaille figures on the exterior of this triptych lack painted polygonal bases.

Ans: Portinari Altarpiece

5;5) FFP each, name the two Biblical figures, a woman and an archangel, who are depicted in the Annunciation on the exterior of the Portinari Altarpiece.

Ans: Mary and Gabriel

10) This artist painted the Portinari Altarpiece.

Ans: Hugo van der Goes

15. FTPE, given a situation, give the dependence of the electric or magnetic field on the distance r .

10) Outside of a uniform ball of charge; r is the distance to the center.

Ans: r to the minus 2 or 1 over r squared

10) A distance r away from an infinite sheet of uniform charge density.

Ans: constant or r to the 0 or doesn't depend on r

10) In the far field of a magnetic quadrupole.

Ans: r to the minus 4 or 1 over r to the four

16. Identify these macroeconomic quantities.

10) This quantity is equal to the change in aggregate demand in a closed economy produced by an increase in spending divided by that increase.

Answer: multiplier

10) If the marginal propensity to consume (MPC) is 0.8, what is the multiplier?

Answer: 5 ($1/(1-MPC)$)

10) If the MPC is still 0.8, what is the multiplier for a tax cut rather than a spending increase?

Answer: 4 ($MPC/(1-MPC)$)

17. His plays include *The Honest Whore* and *The Shoemaker's Holiday*. FTP each:

10) Name this Elizabethan dramatist.

Ans: **Thomas Dekker**

10) Dekker collaborated on *The Sun's Darling* and *The Witch of Edmonton* with this author of *'Tis Pity She's a Whore*.

Ans: **John Ford**

10) Dekker also collaborated with this author of *A New Way to Pay Old Debts* on *The Virgin Martyr*.

Ans: **Philip Massinger**

18. Name these Asian battles of the 1600s, for 15 points each:

15) In this October 21, 1600, battle, 75,000 men under Tokugawa Ieyasu defeated the 120,000-member Western Army of Ishida Mitsunari, establishing Tokugawa as the shogun and military leader of Japan.

Ans: **Sekigahara**

15) In this May 28, 1644 battle, a Sino-Manchurian army led by Dorgon and Wu San-kuei defeated a rebel army led by Li Tzu-ch'eng, allowing the Manchus to enter Beijing and establish the Ch'ing dynasty.

Ans: **Shanhaikuan**

19. Triangulate a manifold, and add up the number of cells of each dimension with alternating signs. FTPE:

10) Name this invariant of the manifold.

Ans: **Euler characteristic** or **Euler number**

10) What is the Euler characteristic of a two-dimensional sphere, which you may compute using any polyhedron homeomorphic to it?

Ans: **2** [note: this is what $V-E+F=2$ means]

10) Given a manifold, you can construct these abelian groups that detect cycles of a given dimension, modulo cycles which bound something higher dimensional. The alternating sum of the ranks of these groups equals the Euler characteristic.

Ans: **homology group**

20. How much do you know about hard currency? FTP each:

10) This 1878 act responded to the "Crime of '73" by reestablishing the free coinage of silver at a ratio of 16:1 to gold; it was named for its sponsors, a Missouri congressman nicknamed "Silver Dick" and an Iowa senator.

Answer: the **Bland-Allison Act**

10) This 1890 act, its sponsor's second biggest achievement of the year, required the treasury to buy 4,500,000 ounces of silver a month and issue the same amount of paper money redeemable in gold or silver.

Answer: **Sherman Silver Purchase Act**

10) In an 1896 speech, William Jennings Bryan said, "You shall not press down upon the brow of labor this crown of thorns, you shall not crucify mankind upon" what object which gives its name to the speech?

Answer: **cross of gold**