

Buzzerfest VII: 15 Minutes to Wapner

Edited by Chris Frankel

Packet by Princeton (Dan Benediktson, Brent Besson, Kait Reilly, and Mark)

Tossups

1. His festival was held on the same day of that of the bread-making goddess Fornax, on February 17th. Depicted as a bearded man wearing clothes that were both military and religious in nature, he was associated with the myrtle plant and had Hora as his consort. Honored by his flamines, he most likely originated as a Sabine god who was incorporated into a triad with Jupiter and Mars. FTP, name this namesake of one of the Seven Hills of Rome, a god considered the deified form of Romulus.

ANSWER: Quirinus

2. After declaring himself emperor, he celebrates by conducting an orchestra and dancing in midair with the first ballerina to respond to him. Though only a teenager, he is described as "a man that would have awed Thor;" however, he is forced to shave his eyebrows and cover his teeth with black caps to hide his good looks. He escapes from government officials and appears live on a television set, where his parents George and Hazel are able to see him shot to death by Diana Moon Glampers, the Handicapper General. FTP, name this resident of a futuristic and equality-obsessed society, the title character of a short story by Kurt Vonnegut.

ANSWER: "Harrison Bergeron"

3. Its namesake gate was built in 1417, and was damaged forty years later by a lightning strike, and not repaired until 1465. In 1644 that gate was burned down by rebels, and upon repair it was renamed with allusions to heaven. Other landmarks in this location include a four story museum honoring its nation's cultural and revolutionary history; the Great Hall of the People, which hosts the parliament; the 36 meter Monument to the People's Heroes that stands in its center, and the Qianmen Gate on its south end. FTP, name this space, the site of 1989 massacre in Beijing.

ANSWER: Tiananmen Square

4. The problem behind this idea involves determining a general mechanism for articulating the set of individual preferences into a single global set, and arises when such properties as universality, citizen sovereignty, and monotonicity, which can be replaced by Pareto efficiency, are brought into play. Using Condorcet's voting paradox as an example, its creator illustrated that a social choice function satisfying the above properties does not exist when there are at least two individuals and three choices. FTP, name this less-than-probable theorem by Kenneth Arrow.

ANSWER: Arrow Impossibility Theorem

5. David Patterson, Garth Gibson, and Randy Katz conceptualized this system and coined its name in an article published for the 1988 ACM SIGMOD Conference. The level 2 version employs hamming code with bit level striping, though it is now considered impractical. The level 3 version that uses bit-interleaved parity and the closely related level 4 version with block-interleaved parity also have fallen out of use. Currently the most popular formats are level 1, which uses mirroring to protect data, and level 0, a non-redundant version used to improve drive performance. FTP, name this system that involves multiple hard disk drives acting as a single virtual drive, used to provide more efficiency or stability in data storage.

ANSWER: Redundant Array of Inexpensive Disks (RAID)

6. In the year of his death, he founded the University of Tartu in territory he had just conquered. His divided his nation's government into four estates with the Riksdag Ordinance, and ruled with the aid of Axel Oxenstierna. More involved in wartime affairs, he pioneered the use of mobile artillery and fought against the forces of Johannes Tilly until Tilly was mortally wounded at the Battle of Lech. This resulted in the emergence of another man, Wenzel von Wallenstein, as his chief adversary during the Thirty Years' War. FTP, identify this man who died in 1632 at the Battle of Lützen, a renowned general and King of Sweden.

ANSWER: Gustavus Adolphus or Gustav II Adolf (prompt on partial answer)

7. Reflections on Nazism and corrupt "buffaloes" and their "lamb" opponents are interspersed throughout this novel. It is Heinrich's 80th birthday, but there's not much celebration since his son Joseph helped destroy the structure that

Heinrich built. Luckily, Joseph's son Robert is helping to rebuild St. Anthony's Abbey, and all three characters share a birthday cake by the novel's end. However, dark overtones abound, leading some to believe that the happy ending is a departure in this work about a family of architects. FTP, identify this novel in which the titular daily game is an attempt by Robert Fähmel to impose false order on his life, the most famous work of Heinrich Böll.

ANSWER: **Billiards at Half-Past Nine**

8. Their worshippers regard all of humanity as children of them, and they are revered for their "musuhi," or the vast creative energy that they possess. Always increasing in number, they can serve as guardians of different regions and clans, and many of them are linked to exceptional ancestors, particularly past emperors. They are often categorized as generic nature deities, but they also include major gods like the creators Izanami and Izanagi. FTP, name this term that describes the numerous spirits worshipped in Shinto.

ANSWER: **kami**

9. When carried out in a high boiling solvent, this reaction, which requires temperatures of around 200°C, is performed as the Huang-Minlon Modification. It converts its subjects into hydrazone through a reaction with hydrazine, then treats them with a base to produce the end products. The counterpart of the acidic Clemmensen reduction, FTP, what is this reaction that reduces ketones and aldehydes into hydrocarbon groups, named for both the German and Russian chemists who discovered it?

ANSWER: **Wolff-Kishner** Reaction

10. The victorious forces prepared by lining up in 11 infantry battalions, including three under General Lara and four under General de la Mar. Taking advantage of the enemy's disorganization, the man now remembered as the Grand Marshall of this battle, William Miller, led his cavalry division, including the Hussars of Junin, on a decisive attack that routed the Royalist forces of Jose de la Serna. FTP, name this 1824 battle set outside the village of Quinua that helped Antonio Jose de Sucre and his men win Peruvian independence.

ANSWER: Battle of **Avacucho**

11. The characters from the titular place of this poem are numerous; "one had a cat's face, / one whisked a tail, / one tramped at a rat's pace, / one crawled like a snail." We learn that they are indirectly responsible for the death of Jeanie, but they're also violent, attacking Lizzie when she refuses to eat with them, wanting only to take the goods home to her sick sister Laura, who made the mistake of eating the forbidden fruits. FTP, identify this poem about a group of little merchant men who take in young girls with their cry, "Come buy, come buy", a work of Christina Rossetti.

ANSWER: **"Goblin Market"**

12. The circumstances behind the assassination of this man were examined by Ludo de Witte, who refuted accusations of CIA involvement. He effectively began his political career in 1955, becoming regional president of a trade union joining his nation's Liberal Party. After a short stint in prison for embezzlement, he founded the MNC, and in 1960 he and President Joseph Kasavubu established his country's first independent government. However, that same year he was sent to a prison in the secessionist Katanga Province and executed after being deposed by a coup led by Joseph Mobutu. FTP, identify this first prime minister of the Democratic Republic of Congo.

ANSWER: Patrice Emery **Lumumba**

13. In contrast to the Overture, two Gavottes, Bourree, and Gigue it is often played with, this piece has no parts for the wind section or the timpani, leaving strings and continuo to carry it alone. Lasting 18 slow measures in 4/4 time, the first violin part begins with a long F-sharp and never goes below an open A, though this famous baroque piece earned its nickname from when German violinist August Wilhelmj transposed it to C major and was able to play the first violin part using only one fourth of the instrument's capacity. FTP, name this air from Johan Sebastian Bach's Third Orchestral Suite in D major.

ANSWER: **Air** on the **G String** (prompt on "Air," accept "**Air** from **Bach's Third Orchestral Suite** in D major" on an early buzz)

14. According to legend, he was born an illiterate shepherd who was granted the gift of poetic genius by a dark mother goddess, with his name indicating his devotion to her. The exact time in which he wrote is not known, but is estimated through inscriptions referring to him at an Aihole Temple that date to 634 A.D. His lyrical poems include a short series on the six seasons and the spiritual love story, "The Cloud Messenger." He also wrote two epics: one

describing the birth of Kumara and the other based on the *Ramayana*. FTP, name this Sanskrit poet who lived during the Gupta Dynasty and wrote the drama, *The Recognition of Shakuntala*.

ANSWER: Kalidasa

15. It affects the production of three enzymes, including a special kind of permease, and transacetylase with an unknown function. The activity of its Z gene, when inserted into a bacterial plasmid, can be observed by using the substrate X-Gal: cells in which its Z gene is active will turn blue to show the presence of beta-galactosidase. Studied by Jacques Monod and Francois Jacob, it serves as a quintessential example of a gene regulation system. Small amounts of cellular glucose decrease the expression of, FTP, what bacterial gene group whose transcription is increased by the presence of lactose, the first operon to be discovered?

ANSWER: lac operon (prompt on "operon" until it is mentioned)

16. He slept with his cousin Jimmy's fiancé on their wedding night, then hooked up with Jimmy's new fiancé, DeeAnna, as well. In a parody of the William Tell story, he once let his sister shoot an apple off his head, which left him in a vegetative state not because he was hit, but because he is a giant pussy. A student at Trumaine University, he tried to impress girls by taking on the persona of a rapper named Grandmaster B, but usually ended up stuck at home with Isis, his inflatable woman. FTP, name this David Faustino-played older brother of Kelly from *Married With Children*.

ANSWER: Bud Bundy

17. One of his unrealized projects was a church and school complex for a Franciscan mission in Tangiers, which scrapped because the proposed building was too large and intricate. His design for the Teresian school, a neogothic work, was limited by virtue of the fact that first floor had been completed before he was assigned to it. His first major commission was the Casa Vincens, and other buildings he designed included the Casa Batllo and Casa Mila, though much of his work was done for the Guell family, and features his trademark use of catenary arches and hyperbolic paraboloids. FTP, identify this Spanish architect of the *Sagrada Familia*.

ANSWER: Antonio Gaudi

18. When irradiated by radio waves, samples will often be observed undergoing this phenomenon. Observations record the internal magnetic field of nuclei with non-zero magnetic moments. Because of spin-spin coupling, it is possible to gain insight into not just the target nucleus itself, but also the other nuclei in the vicinity. Having been used to discover the structure of Buckminsterfullerenes, this is, FTP, what phenomenon that won its discoverers Felix Bloch and Edward Purcell the 1952 Nobel Prize, which now enjoys widespread use in the medical establishment?

ANSWER: Nuclear Magnetic Resonance or Magnetic Resonance Imaging

19. The main speaker of this work notes that he believes in spiritual entities, or *daimonia*, and emphasizes his opposition to the arrest and execution of Leon and denies links to Critias, leader of the Thirty Tyrants. After the protagonist hears Meletus call for his death, he responds by asking instead for a fine of thirty minae instead, offending the jury that had already convicted him for impiety and corrupting the youth. FTP, name this Platonic dialogue where Socrates tries to defend himself before being sentenced to death.

ANSWER: *The Apology* or *Apologia*

20. Written to settle quarrelling between the London and Leyden contingents by creating a "civil body politic," this document soon was replaced by the Pierce Patent, which had the advantage of royal authorization. It first appeared in printed text form in Edward Winslow's *Mourt's Relation*, though he did not use its popular name; and Nathaniel Morton later provided a list of its signers, including John Alden, Samuel Fuller, and William Bradford. FTP, name this 1620 document created to govern the Plymouth Bay Colony.

ANSWER: Mayflower Compact

21. In 2003, scientists concluded that molten lava is just 400 meters below the crater of the summit of this mountain, but despite this, approximately 15,000 people annually attempt to climb the mountain, one of the Seven Summits. The summit was first reached by Dr. Hans Meyer in 1889. Two extinct peaks include: Mawensi (5,149 metres) and Shira, however, the highest summit is volcano Kibo, 5,895 metres. FTP, name this mountain in northeastern Tanzania which includes the highest peak in Africa.

ANSWER: Mount Kilimanjaro

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Bonuses

1. Stuff about a tiny island, FTPE:

(10) Located east of Madagascar, far south from the Seychelles but north of Reunion, this 2040-square-kilometer island in the Indian Ocean has its capital at Port Louis.

ANSWER: Republic of Mauritius

(10) In 1638, Mauritius was colonized by this nation, who named it in honor of Prince Maurice of Nassau.

ANSWER: The Netherlands (accept "Dutch")

(10) This now-extinct flightless bird, *raphus cucullatus*, was last observed on Mauritius in 1681.

ANSWER: dodo

2. What tournament would be complete without a bonus on Chinese rebellions? FTPE:

(10) Also known as the Tinbao Rebellion, it lasted from 756-763, instigated by its namesake, who sought to challenge the power of the ruling Tang Dynasty.

ANSWER: An Lushan rebellion

(10) The raising of taxes to build road fortifications sparked anger at the Han dynasty, leading to this 184 AD rebellion.

ANSWER: Yellow Turban rebellion or Yellow Scarves rebellion

(10) This eight year long rebellion saw a Buddhist sect sought to restore the Ming Dynasty and oust the Chi'ing Dynasty.

ANSWER: White Lotus rebellion

3. FTPE, Answer the following about a process.

(10) Invented by Kary Mullis, this process allows one to amplify short parts of DNA strands using the eponymous type of enzyme.

ANSWER: Polymerase Chain Reaction

(10) Extracted from the bacterium *Thermus Aquaticus*, this polymerase is useful in the PCR.

ANSWER: Taq polymerase

(10) Originally performed in vitro, the PCR can now be carried out more efficiently using this machine that heats and cools reaction tubes to ensure that the reactions occur at the proper temperature.

ANSWER: thermocycler

4. Answer the following about Italian works concerning the French hero they dubbed Orlando FTPE.

(10) *Orlando Innamorato* is the first major Italian Romance concerned with Orlando, and was written by this man.

ANSWER: Matteo Maria Boiardo

(10) Lodovico Ariosto wrote this sequel to *Orlando Innamorato*.

ANSWER: Orlando Furioso or Mad Roland

(10) Orlando goes *furioso* because this woman, with whom he is madly *innamorato*, elopes with the Moor Medoro.

ANSWER: Angelica

5. FTPE, name these musicians from Greek mythology.

(10) He was quite the lyre player, but he spent the rest of his life moping after he screwed up and lost his chance to get his dead wife Eurydice back.

ANSWER: Orpheus

(10) A court musician for King Periander of Corinth, he was taken hostage by jealous crewmates on a sea voyage home. His music attracted friendly dolphins, who carried him back home when he jumped into the sea.

ANSWER: Arion

(10) This cocky satyr challenged Apollo to a flute-playing contest. He lost and was flayed alive.

ANSWER: Marsyas

6. FTPE, answer these questions about names given to collections of elements with similar properties.

(10) Elements of this group are distinguished by their valence configuration of ns². An example of this group is Barium.

ANSWER: alkaline earth Metals

(10) Due to the poor atomic shielding of the 4f orbitals, the atomic radii of elements in this series gradually diminish.

ANSWER: lanthanide series

(10) This name is given to Group VI elements, an example of which is Selenium.

ANSWER: chalcogens

7. Stuff about old-school Japanese literature, FTPE.

(10) This 14th Century epic chronicles the war between the Taira and Minamoto clans.

ANSWER: The Tale of the Heike or Heike Monogatari

(10) This 10th Century collection of daily observations of court life was written by Sei Shonagon.

ANSWER: Pillow Book

(10) *The Life of an Amorous Man* and *The Japanese Family Storehouse* are two works by this most famous picaresque author of 17th Century Japan

ANSWER: Ihara Saikaku

8. Identify the following about a Renaissance Master, FTPE.

(10) This Venetian artist's real name was Jacopo Robusti, but the nickname by which he was commonly known is Italian for "little dyer."

ANSWER: Tintoretto

(10) Tintoretto's most famous works are a series from the life of Christ, including this painting, which, unlike earlier versions of the same event, displays Christ mingling among the disciples while light radiates from him along the diagonal table.

ANSWER: The Last Supper

(10) Also in that series was this painting at the titular location which shows a boat coming in to shore while Jesus looks on, apparently standing on the water.

ANSWER: Christ at the Sea of Galilee

9. Fire! Fire! Fire! Name these Supreme Court cases that involved burning shit, FTPE.

(10) This 1968 case decided that a burning a draft card did not constitute speech protected under the First Amendment.

ANSWER: U.S. v. O'Brien

(10) This decision unanimously overturned a Minnesota law regarding crimes motivated by racial and other biases. Therefore a teenager who burned a cross on a black family's lawn could not be punished under it.

ANSWER: R.A.V. v. St. Paul

(10) This 1989 ruling protected the right to expression of a defendant who burned an American flag in protest of the Reagan administration.

ANSWER: Texas v. Johnson

10. Answer the following about a religious phenomenon, 5-5-10-10.

(5) This term describes wounds analogous to the ones Jesus suffered during crucifixion.

ANSWER: stigmata

(5) This patron saint of animals and founder of an eponymous order of mendicant friars is often labeled as the first recorded sufferer of stigmata.

ANSWER: Saint Francis of Assisi

(10) This priest who died in 1960 and was born Francesco Forgione and canonized in 2002 allegedly suffered the stigmata and was said to have miraculous healing powers.

ANSWER: Padre Pio

(10) Five female saints bearing this name had instances of stigmata. Emmerich and del Ricci were the most recent ones, but perhaps the best known of them is the one "of Siena," who lived from 1347-1380.

ANSWER: Catherine

11. Cold War stuff, FTPE.

(10) Published as a 1947 article entitled *The Sources of Soviet Conduct* and signed only by "X," it fueled the Cold War frenzy by expounding on the dangers of Soviet communism to the American way of life.

ANSWER: Long Telegram

(10) This American diplomat and longtime Moscow resident sent the *Long Telegram* to the State Department and edited it into the article that he signed as "X."

ANSWER: George Kennan

(10) The *Long Telegram* heavily influenced this presidential statement justifying American intervention in Greece and Turkey to support the fight of free people against communist rule.

ANSWER: Truman Doctrine

12. FTPE, Answer these questions about the EPR Paradox.

(10) Much of the EPR focuses on this quantum mechanical effect, in which measurements of systems instantaneously influence other systems across distances.

ANSWER: quantum entanglement

(10) To preserve locality, theories of this type were put forward which suggested that Quantum Mechanics is an incomplete yet statistically accurate theory of unobserved/unknown phenomena.

ANSWER: local hidden variable theory or local hidden parameter theory (accept equivalents)

(10) Determination of this intrinsic angular momentum of a particle seems to violate entanglement in the EPR paradox.

ANSWER: spin

13. Answer these questions about a tsar of Russia FTSNOP.

(5) Reigning until his death in 1725, he is remembered for his policy of Westernization, making Russia a major European power.

ANSWER: Peter I or Peter the Great or Peter Romanov

(10) In the early years of Peter's reign, he ruled jointly with his invalid half brother Ivan V, while this sister of Ivan held the true power as regent. She tried to start a coup against Peter in 1689, but he put it down and sent her to a convent.

ANSWER: Sophia Alekseyevna

(5) Peter and other Baltic powers waged this war against Sweden, which featured the battles of Narva and Poltava, and was ended by the Treaty of Nystad.

ANSWER: Great Northern War

(10) Peter put taxes on lots of stuff, like tobacco, but is most noted for putting a yearly tax on this item in an attempt to make men seem more European.

ANSWER: beards (accept equivalents)

14. Answer the following about a comedy, FTPE.

(10) This Oscar Wilde farce follows Jack Worthing and Algernon Moncrieff, who, respectively, pursue Gwendolyn Fairfax and Cecily Cardew using the same pseudonym.

ANSWER: The Importance of Being Earnest

(10) Algernon uses this term to describe his habit of inventing a fictitious friend and using him as an excuse to avoid social obligations. It is named after Algernon's constantly sick "friend."

ANSWER: Bunburying

(10) Much of Wilde's satire of Victorian manners can be seen in the behavior of this exceedingly snooty aunt of Algernon and mother of Gwendolyn.

ANSWER: Lady Bracknell

15. Answer the following about an over-asked 20th Century philosopher, FTPE.

(10) This noted analytic philosopher and author of *From a Logical Point of View* was known for pithy statements like "No entity without identity" and "To be is to be the value of a bound variable." He died in 2000.

ANSWER: Willard Van Orman Quine

(10) This 1960 work by Quine considered the notion of translation and the notion that the success of a theory of translation could only be measured by its ability to predict future utterances.

ANSWER: Word and Object

(10) Quine also wrote *Two Dogmas of Empiricism*. The second dogma refers to reductionism, the first refers to the distinction between these two types of statements. All or nothing, name them for 10.

ANSWER: analytic and synthetic

16. Answer the following about Chaos Theory, FTPE.

(10) This property first noted by Robert May is seen when a function is on the verge between deterministic and chaotic behavior.

ANSWER: bifurcation

(10) This function used in population dynamics, defined by $x_{n+1} = r x_n (1 - x_n)$, exhibits period doubling for sufficiently large values of r .

ANSWER: logistic function or logistic map

(10) The ratio of the lengths of two successive bifurcation intervals for any map exhibiting bifurcation is equal to this constant, named for the physicist who discovered it.

ANSWER: Feigenbaum constant

17. Stuff about some American poems, FTPE:

(10) This titular "child of scorn" "dreamed of Thebes and Camelot," and "loved the Medici." "Born too late," he "Scratched his head and kept on thinking," then he "coughed, and called it fate / And kept on drinking."

ANSWER: "Miniver Cheevy"

(10) This title character, hopelessly mourning his dead love, keeps hearing a voice that tells him to "Go to the western gate... where the vines cling crimson on the wall."

ANSWER: "Luke Havergal"

(10) "Miniver Cheevy" and "Luke Havergal" were written by this creator of Tilbury Town.

ANSWER: Edwin Arlington Robinson

18. Linear Algebra, FTPE.

(10) A set of vectors in a vector space that both spans and is linearly independent is called this.

ANSWER: basis or base

(10) The invariance of dimension of a vector space, i.e. that all bases in a given space have the same cardinality, is proved by this trick, in which vectors from a linearly independent set are swapped with vectors from a spanning set.

ANSWER: Steinitz exchange

(10) What people really care about in Linear Algebra is the linear maps. Give the name for the vector space formed by all linear maps from a given space onto its characteristic field.

ANSWER: dual space

19. It was signed despite the massive protests in Edinburgh. FTPE:

(10) Identify this 1707 Act of Parliament that brought Scotland into the Kingdom of Great Britain.

ANSWER: Act(s) of Union

(10) Scotland desired the economic benefits from the treaty to help recover from this disastrous attempt to place a Scottish colony on the Isthmus of Panama.

ANSWER: Darien Scheme

(10) However, many Scots were unhappy with the treaty, leading to the 1715 rebellion which saw this man, The Old Pretender, defeated and sent back to France.

ANSWER: James III or James Francis Edward Stuart

20. Answer the following about a noted composer and pianist FTPE.

(10) Identify this composer of the *Dante Symphony* and the *Faust Symphony*, as well as countless piano etudes, and of course, the *Hungarian Rhapsodies*.

ANSWER: Franz Liszt (or Ferenc Liszt)

(10) Liszt's *Piano Waltz #1* is often given this devilish nickname.

ANSWER: Mephisto Waltz

(10) This set of three solo piano works by Liszt is mostly famous for the third, which was based on the Ferdinand Freiligrath poem "Oh love, as long as you can" and subtitled the "Notturmo."

ANSWER: Liebestraum or Dream of Love