

# PARFAIT II Round 4

Princeton  
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# 1 Princeton Tossups, Round 4

1. Niedermayer and Hentig unsuccessfully lobbied to get this nation to join the German side in World War I, and Fritz Grobba represented Weimar Germany's desire to offset Russian influence there. All this was made possible by the 1919 Rawalpindi treaty that gave Amanullah Khan the ability to conduct an independent foreign policy. In 1893 it negotiated a new border with Sir Mortimer Durand, creating the Wakhan panhandle that gives it its border with China and separates Kashmir from Tajikistan, passing through the infamous Khyber pass that links it to Pakistan. For ten points, name this central Asian nation invaded by the Soviets in 1979 and currently occupied, with the consent of President Hamid Karzai, by the United States.

**Answer:** Jomhuri-ye Eslami-ye Afghanistan

2. The Book of Jubilees says that it commemorates oaths sworn by Noah and his sons not to eat blood with flesh; thus the word "oath" got corrupted into its present name. In post-temple times it took on the meaning of *zeman matan toratenu*; on its first day the Aramaic poem *Akdamut*, written by Rabbi Meir of Worms, is read after the first night is spent studying the Torah, which was given to Moses after descending Mt. Sinai. Also read is the book of Ruth, which takes place at the beginning of the barley harvest. For ten points, name this Jewish holiday, the second of the pilgrim festivals that literally means "Festival of the Weeks" and celebrates the harvest by decorating the synagogue with the first fruits during the month of Sivan.

**Answer:** Hag Shavuot or Pentecost

3. The product of this function taken on the pseudocounts forms the normalization term of the Dirichlet distribution. A convergent series forms the basis of the Lanczos approximation that allows arbitrary precision. Its value at  $i$  is  $.155 + .5i$ , its value at one half is the square root of pi, and its value at six is one hundred and twenty. Given its definition of the integral from zero to infinity of  $t$  to the  $x$  minus one times  $e$  to the minus  $t$  with respect to  $t$ , induction and integration by parts can be used to show that - for nonnegative  $x$  - its value at  $x + 1$  is equal to  $x + 1$  times its value at  $x$ . For ten points, this is what generalization of the factorial function that takes its name from the third letter of the Greek alphabet?

**Answer:** gamma function

4. Aqhat wanted to trade Anath his bow for it, but she declined and had him killed by an eagle. The Etruscan goddess Evan represents it, and Taoists who have it are called Xian and are classified by Ko Gong. Pollux has it in a timeshare with his brother, who alternate between Hades and Olympus. Given to Wowbagger via a particle accelerator, a liquid lunch and a pair of rubber bands, he uses it to insult all the inhabitants of the universe in alphabetical order, but the long dark teatime of the soul on Sunday afternoon still gets to him. For ten points, name this ability to live without dying.

**Answer:** immortality

5. The men in this book are described like cuts of meat: the chief love interest has "keenly-modelled dark features," Gus is "massive," and Rosedale's Jewishness is played up by

describing his “sidelong eyes.” The protagonist pities Nettie Struther, who likewise desired Lawrence Selden but who was taken in by George as damaged goods anyway. A presumed liason with Gus Trenor ruins the protagonist’s shot with Lawrence Stern in Book I, who thinks he’s strong enough to overcome Lily Bart’s gambling problem. For ten points, name this novel about a woman searching for a husband in New York and Monte Carlo by Edith Wharton that takes its title ifrom the dwelling place of the heart of fools in Ecclesiastes.

**Answer:** House of Mirth

6. A 1959 *Biometrika* paper he wrote establishes a method for analyzing the autocovariance of positive semi-definite sequences expressed as a weighted sum of geometric functions derived from the semi-definite function that represents the continuous rational spectral density examined by skip-sampling. He created an analog computer called the MONIAC to simulate the workings of the UK economy, but he is better known for an observation that, except for years of large input prices, a scarcity of workers causes employers to bid up the price of labor. For ten points name this New Zealand born economist best known for a namesake curve relating wage growth and unemployment.

**Answer:** Alban William Phillips (do not accept “Phelps”)

7. There are only three women in the painting, and at least forty-two men. Of the men, Apelles holds the hand of the only non-classical man to be protrayed in full length, while Shakespeare in the bottom left is cut off, and Mozart’s face is covered by Poussin’s outstretched arm. In the center are women personifying two of the title character’s works, one with a sword and the other with an oar, seated in front of the enthroned writer who is being crowned by a winged Nike. For ten points, name this 1827 work by Dominique Ingres that turns the author of the pictured Illiad and Odessey into a classical god.

**Answer:** Apotheosis of Homer or Apotheose d’Homer

8. He extended the Robinson-Schensted algorithm from symmetric groups of order  $n$  to generalized permutations for finding bijective correspondences to Young tableaux. With Morris and Pratt, his name adorns an algorithm for building finite automata for finding substrings in a larger text. He suggests using increments of two to the  $k$  plus one down to one when performing shell sorts in the third volume of his life’s work, for which he created the TeX typesetting system that has a version number that slowly converges to  $\pi$ . For ten points, name this Stanford Computer Science professor who is the author of *The Art of Computer Programming*.

**Answer:** Donald Knuth

9. This firefighter at Chandos Street Fire Station sent a letter to his ambassador Frank Lascelles in Berlin, wondering if his nephew had authorized Metternich’s “menacing” tone when talking with his Foreign Affairs secretary Lord Landsdowne. His affair with actress Nellie Clifton in Ireland brought on a rebuke by his father, Prince Consort Albert, who died after visiting him at college. After abandoning forming an Entente Cordiale with Wilhelm II, he instead formed one with France in 1904 to settle colonial disputes. For ten points, name this king of Britain who preceded George V and succeeded Victoria.

**Answer:** Albert Edward VII Saxe-Coburg-Gotha

10. Yasuo Kuniyoshi created the floral murals and Stuart Davis created the cubistlike *Men Without Women* for the bathrooms in one of this complex's buildings. The first building here, built from Indiana limestone and Deer Island granite, was the RCA building, while it is best known for a sculpture of Lew Lawrie's Atlas and Paul Manship's gilded figure of Greek god delivering fire to mankind. The home to a skating rink and a giant Christmas tree during the winter months, for ten points, name this New York City complex home to Radio City Music Hall and NBC's today show.

**Answer: Rockefeller Center (prompt on "Radio City Music Hall")**

11. This appellant in the case of *State v. Stark* was bailed out of jail by Nick Chiles and collapsed on a stage in Eureka Springs, Arkansas with a final cry of "I have done what I could." Fired for incorrectly pronouncing words as a teacher, this Kentucky native lost her only financial support after the death of her alcoholic first husband, Charles Gloyd; her next husband, while a minister in Medicine Lodge, Kansas divorced her for desertion as she began publishing newsletters like *Home Defender* and the *Smasher's Mail*. For ten points, name this prohibitionist who took to smashing the fixtures and contents of bars with a hatchet.

**Answer: Carrie Amelia Nation (prompt on Carry Moore or anything involving "hatchet")**

12. He was the *Lampoon* cartoonist and was a founding editor of the *Harvard Monthly*, and he called the "colonial mansions and femininity" fostered by Calvinism and transcendentalism the "The Genteel Tradition of American Philosophy" in a speech at Berkeley. He considered the place of man in society in *Dominations and Powers*, concluded after living in wartorn Rome. His system of philosophy concerning the "realm of essence" as opposed to "matter" was expanded on in the four-volume *Realms of Being* after being first developed in *Scepticism and Animal Faith*. For ten points, name this Spanish-born philosopher best known for *The Last Puritan* and the maxim "Those who cannot remember the past are condemned to repeat it."

**Answer: Jorge (George) Augustín Nicolás Ruiz De Santayana**

13. The anagram *Ut tensio sic vis* in a *Description of Helioscopes* was used to assert the author's priority in asserting that lengthening an object increases the space of the domains between elements and thus the "endeavor of receding" is inversely proportional to the total volume, which he incorrectly associated with Boyle's Law. 1678's *De potentia restitutiva* fully articulated his theory that states that stress is proportional to strain, although only for deformations that don't deform the material. For ten points, name this law formulated by an Englishman that states that  $F = -kx$ , or that the restoring force on a spring is linearly proportional to the distance of the displacement.

**Answer: Robert Hooke's Law**

14. In order to display it, Makris, the daughter of Aristaios, was chased out of her cave. It came to fame because Ino wanted Athamas to kill Phrixus and Helle, but then their mother, Nephele, brought Chrysomallos so that the two could cross the Hellespont, so named because Helle fell into the body of water while riding the creature that bore it. Phrixus then killed the animal and then placed it in the grove of Ares until Aeetes's daughter, Medea, helped Jason by lulling the dragon guarding it to sleep. For ten points,

name this object of the Argonauts' quest, a piece of aureal wool.

**Answer:** the golden fleece or chrysomallon deraz (prompt on "Chrysomallos")

15. The tectonic plate by this name subducts at the Nankai trough, which explains the emplacement of felsic to intermediate magmas in Setouchi, which is separated from it by the Setonaikai. Its major cities are Takamatsu and Matsuyama, and often pilgrims tour the eighty-eight temples here that are associated with Kobo Daishi. The Seto Ohashi, built over ten years between Kojima and Sakaide, connects it with Honshu. Consisting of the prefectures of Ehime, Kagawa, Kochi, and Tokushima, it is the smallest of the four major Japanese islands. For ten points, name this small island that is south of Honshu but east of Kyushu.

**Answer:** Shikoku

16. BoA's *My Name* kicked off the "K" version of it, and Christina Norman, its current head, is creating a UK rival to MySpace called Flux. A joint venture of American Express and Warner, it started as WASEC until spun off in 1984. Among the channels that are now owned by Bob Pittman's creation are SpikeTV, Comedy Central, CMT, Noggin, Nickelodeon, and VH1. Pat Benatar's *You Better Run* followed *Video Killed the Radio Star* by the Buggles when it premiered in 1981. For ten points, name this cable channel, the pioneer of music videos.

**Answer:** Music Television Networks, Inc.

17. Malin Gunarsson at Uppsala confirmed that this disease's progression is slowed by memantine, which prevents high levels of glutamate, which putatively prevents the formation of tau tangles. Kenton Zavitz is creating right-handed flurbiprofen that cleaves APP, while a clinical trial by Elan Pharmaceuticals and Wyeth tried to stimulate antibodies against amyloid beta-peptide 42, a constituent of the plaques that disrupt the connections between nerve cells. For ten points, give this neurological geriatric disorder named after the doctor who first described it in 1906 that causes dementia and memory loss in the elderly.

**Answer:** Alzheimer's

18. He runs away from home and gets some bread from a bald woman with a single tooth whose son ran off to a monastery. His mother, who cried in the spring when the perfumes of the fields reminded her of her wasted life, has to throw a handkerchief over his frothing head after he lusts after his uncle's daughter in Cana. He spends the night with that same daughter after seeing her emerge from the cell of the Zealot imprisoned by Rufus, believed to be the messiah by Judas, and for whom the protagonist made a cross for the execution. The son of a paralyzed carpenter, for ten points, name this main character of a Kazantzakis work who faces his last temptation.

**Answer:** Jesus Christ of Nazereth (accept either underlined part)

19. He likes the thin ones in summer, the fat ones in winter, but his favorite is the "giovin principiante." His servant, who works night and day, counted 1003 in Spain and 231 in Germany, which he recounts in *Madamina, il catalogo e questo* to Donna Elvira. Leporello's aria is one of the reasons Lorenzo Da Ponte's libretto is particularly praised; the

opera begins with the title character wooing Donna Anna, and ends when he is snatched by a statue of Il Commendatore that takes him to hell. For ten points, name this Mozart opera that is a retelling of the myth of the lecherous nobleman Don Juan.

**Answer:** Il dissoluto punito ossia il Don Giovanni (Der bestrafte Wüstling oder Don Giovanni) KV 527

20. He wrote *Filena* under the patronage of Giulio Acquaviva in Rome, but he calls *Confusion* the truest thing he ever wrote, a play written about the same time as *The Traffic of Algiers*, which was perhaps inspired by being held in Algeria after being taken captive while returning home from the battle of Lepanto. His first published work was *Galatea*, a pastoral romance, while he is best known for a work concerning Sanson Carrasco, who jousts with the liberator of Ginesillo de Parapilla and rider of Rocinante. For ten points, name this author of Don Quixote.

**Answer:** Miguel de Cervantes Saavedra

21. The “Venetian” method for its production uses calcium chloride as the drying agent, the “Russian” method uses destructive distillation, and the kraft method is a by-product of the sulfate process used to make kraft paper. One of the earliest sources is the terebinth tree, a relative of the pistachio. The crude variety is made by tapping a pine tree and is about two thirds  $\alpha$ -pinene and one third  $\beta$ -pinene. Part of a broad category of “naval stores” derived from conifers, it is a semifluid substance consisting of resins dissolved in a volatile oil. For ten points, name this solvent commonly used as a brush cleaner by painters.

**Answer:** turpentine

## 2 Princeton Bonuses, Round 4

1. Identify these Venetian painters for ten points each.
  - 10 His allegories include *The Tempest* and *The Three Philosophers*, and he daringly placed Christ off to the side in his *Adoration of the Shepherds*.  
**Answer:** Giorgione
  - 10 *The Feast of the Gods* was finished by this painter of *Venus of Urbino* and *Sacred and Profane Love*.  
**Answer:** Titian
  - 10 Giorgione and Titian were both students of this master, who created the altarpiece of San Zaccaria and *Lady with a Mirror*.  
**Answer:** Giovanni Bellini (prompt on partial answer)
  
2. After winning the 1994 Nobel Prize in literature, he announced that he would not be writing any more books because he had no reason to write. For ten points each ...
  - 10,10 Name this author of *Seventeen*, about the assassination of the chairman of the Socialist Party, and *Teach Us to Outgrow Our Madness*, which contains a story about a fishing village getting a “prize catch” of a black soldier during World War II, and also name the country he is from.  
**Answer:** Kenzaburo Oe and Japan
  - 10 The last story of *Teach Us to Outgrow Our Madness* addresses a theme similar to this 1964 novel, whose main character Bird, like Oe, struggles to deal with a braindamaged child. herniated brain.  
**Answer:** Kojinteki-na taiken or A Personal Matter
  
3. Answer the following about a war that did very little, the War of Austrian Succession, for ten points each.
  - 10 The war was ended by this status quo-restoring treaty signed in 1748.  
**Answer:** The Treaty of Aix-la-Chapelle (prompt on “Aachen”)
  - 10 Article IX of the treaty says that Britain must give up two hostages until it withdraws from what isle royale, home to the fortress of Louisbourg?  
**Answer:** Cape Breton
  - 10 The war quickly resumed because Austria was not given back Silesia by the terms of this treaty named for a city in Saxony.  
**Answer:** Dresden
  
4. Some people will tell you that he was killed by Richard Johnson, but since he was carried off after the first volley, the smart money is on David King. For ten points each ...
  - 10 Name this Shawnee leader killed on October 5, 1813.  
**Answer:** Tecumseh

- 10 Tecumseh was killed at this battle that is named for a river that shares its name with a major river in the United Kingdom.  
**Answer:** **Battle of the Thames or Moraviantown**
- 10 Elected partially based on the fame he acquired at the battle of the Thames, Richard Mentor Johnson was vice president under this eighth president of the U.S.  
**Answer:** **Martin van Buren**
5. Given a sexual encounter from a sci-fi novel, give the novel that it comes from for ten points each. If you need the author, you'll only get five.
- 10 Jubal and Mike eventually get Jill to become an exhibitionist, and there's a two page explanation on why you should grok group sex. Mike also teaches his harem to control pregnancy and STDs with their minds.  
 5 Robert A. Heinlein  
**Answer:** **Stranger in a Strange Land**
- 10 After Texarkana is nuked, a ceasefire is declared with the Asian coalition. Meanwhile, Zerchi, a member of the order of the titular saint, dreams of Rachel, "The Immaculate Conception," whom he later meets as the second head of the mutant, Mrs. Grales.  
 5 Walter Miller  
**Answer:** **A Canticle for Liebowitz**
- 10 After serving as a surrogate for Serena Joy, the protagonist discovers "The Club" where her old friend Moira is employed after the Commander takes Offred for an evening out.  
 5 Margret Atwood  
**Answer:** **The Handmaid's Tale**
6. It has a imidazole side chain, and is one of the essential ammino acids. For ten points each ...
- 10 Name this amino acid with formula  $C_6H_9N_3O_2$ .  
**Answer:** **Histidine or 2-amino-3-(3H-imidazol-4-yl)propanoic acid**
- 10 Iron is bound to four nitrogen atoms of porphyrin, and oxygen molecule, and histidine, in this oxygen-carrying protein.  
**Answer:** **oxyhemoglobin**
- 10 George Barger and Henry Dale first isolated this product of Histidine's decarboxylation that is released from mast cells in an allergic reaction.  
**Answer:** **histamine**
7. Identify these islands of Indonesia for ten points each.
- 10 The Indonesian part of this island is called Kalimantan, and Bander Seri Begawan lies on the South China Sea.  
**Answer:** **Borneo, prompt on Brunei**



10 Its four peninsulas create three gulfs: Tolo, Bone, and Tomini, and its highest peak is Mount Rantekombola.

**Answer:** Celebes or Sulawesi

10 This Lesser Sunda island with largest city Maumere was where a new type of proto-human, nicknamed “Hobbit,” was found.

**Answer:** Flores

8. Answer the following about the last ruler of the Ayyubid dynasty, As-Salih for ten points each.

10 As-Salih’s new campaign against European holdings in the Levant and the Khorezm capture of this city started the seventh crusade.

**Answer:** Jerusalem or Yerushalayim or Al-Quds

10 This leader of the seventh crusade and king of France was captured at al-Mansurah in 1249 by As-Salih’s forces.

**Answer:** St. Louis or Louis IX

10 Divided into the “Bahri” and the latter the “Burji,” this dynasty of Turkish slave warriors ruled Egypt until the 16th century.

**Answer:** Mamluk

9. Answer the following about a twentieth century dialectic for ten points each.

10 He wrote *Critique of Dialectical Reason* while hopped up on amphetamines, rejected the deterministic view of history, but accepted that man shapes the universe and vice-versa and that capitalism was inherently exploitative.

**Answer:** Jean-Paul Sartre

10 Sartre’s opposition to determinism, later cast in a Marxist mold in *Critique of Dialectical Reason*, was articulated in this 1943 treatise that begins with an analysis of negation.

**Answer:** Being and Nothingness: An Essay on Phenomenological Ontology or L’Être et le nant: Essai d’ontologie phénoménologique

10 Sartre argues that all production, not industrial production, results in alienation, a belief he believes was formulated by this originator of the dialectic and author of *Phenomenology of Mind*.

**Answer:** Georg Wilhelm Friedrich Hegel

10. Given a description of a work about copy clerks, name the work for ten points each.

10 Makar Devushkin, a middle-aged copy clerk, and Varvara, a virginal girl in need of protection who instead marries Bykov, exchange letters in this first novel by Dostoyevsky.

**Answer:** Poor Folk or Bednye Lyude

- 10 *Poor Folk* was partially inspired by and references this short story, whose titular object is lost by Akaky Akakievich after a dinner party in St. Petersburg.  
**Answer:** The Overcoat or Shinel
- 10 Unlike Makar and Akaky, Farrington isn't passive: he beats his son and tells off his boss. But he's still unfortunate, as he loses an armwrestling match to a city slicker and pawns his watch in this *Dubliners* short story.  
**Answer:** Counterparts
11. He was the first to trill on pedals, and a young Johann Sebastian Bach walked more than 200 miles to meet with him on December 2, 1705. For ten points each ...
- 10 Name this organist who wrote the cantatas *Jesu, meine Freude* and *Herr, auf Dich traue ich* and his *Gigue Fugue in C Major* is one of his most played works.  
**Answer:** Dietrich Buxtehude
- 10 As the organist of St. Mary's Church, Buxtehude instituted the Abendmusiken of this former Hanseatic city and the setting of Buddenbrooks.  
**Answer:** Lübeck
- 10 Like Bach, this composer wanted to succeed Buxtehude as organist, but balked at the condition of marrying Buxtehude's homely daughter. Johann Christian Schiefferdecker bit the bullet and married Anna Margareta Buxtehude, leaving this composer of *Royal Fireworks* in the clear.  
**Answer:** Georg Friedrich Händel
12. Answer the following about the 1870 Vatican I council for ten points each.
- 10 The council was convened by this pope, who had the longest pontificate.  
**Answer:** Pius IX or Giovanni Maria Mastai-Ferretti
- 10 The most notable result of the council was this doctrine establishing it as when the Pope speaks "ex cathedra" defining doctrine held by the whole church.  
**Answer:** papal infallibility
- 10 One of the major problems critics had with papal infallibility was this pope who was condemned as a heretic at the third Council of Constantinople in 680 for his monothelitic teachings.  
**Answer:** Honorius I
13. Answer the following chemistry questions for ten points each.
- 10 This compound, created from an ionized additive to salt and a precious metal is used in photography and cloud seeding.  
**Answer:** silver iodide or AgI (don't accept "silver iodine")
- 10 The functional group  $CH_3$  is called this, from the compound produced when you add another hydrogen.  
**Answer:** methyl

- 10 An amine creates a tertiary amine and an alkene when exposed to methyl iodide and then silver iodide in this elimination reaction.  
**Answer:** Hoffman elimination
14. It begins by describing how when the April showers and breath of Zephyrus stir flowers to sprout, pilgrims journey to the title place to seek the holy blissful martyr. For ten points each . . .
- 10 Name this work by Geoffery Chaucer.  
**Answer:** General Prologue to the Canterbury Tales (accept either underlined answer)
- 10 This member of the bunch tells how three men set out to slay death, but find a bunch of money. Getting greedy, the third goes off to buy food, poisons some wine, returns to the tree, and is killed by his two compatriots. They then drink the wine.  
**Answer:** pardoner
- 10 This gap-toothed pilgrim tells about a gallant member of King Arthur's court who rapes a woman, then has to marry a hag who supplies him with an answer to a riddle that saves his life.  
**Answer:** wife of bath or Alyson
15. Nothing makes a film like lesbians. Name these films with girl-on-girl action for ten points each.
- 10 A 1961 adaptation of a Lillian Helman play with Audrey Hepburn and Shirley MacLane, two schoolteachers are ostracized after their secret feelings are exposed.  
**Answer:** The Children's Hour
- 10 This 2004 film by Alice Wu concerns a hotshot doctor, played by Michelle Krusiec, and a dancer, played by Lynn Chen, who fall in love. Meanwhile, Wil's mother is pregnant and moves in.  
**Answer:** Saving Face
- 10 Natasha Lyonne plays Megan Bloomfeld, who is sent to True Directions to set her straight despite her contention that she couldn't be a lesbian because of the titular reason in this 1999 film.  
**Answer:** But I'm a Cheerleader
16. It is an expansion of a periodic function in terms of sines and cosines. For ten points each . . .
- 10 Name this decomposition named for a French mathematician.  
**Answer:** Fourier transform
- 10 This mathematician, who was the first to measure a star's parallax, has an inequality relating the integral of a square of a piecewise continuous function to the coefficients of its generalized Fourier transform. He is best known, however, for cylindrical harmonic functions.  
**Answer:** Friedrich Bessel

- 10 This result, less general than Plancherel's theorem, says that the Fourier transform is unitary; thus the sum of the square of a function is equal to the square of the transform.  
**Answer: Parseval's theorem**
17. Time for some tasty questions. Answer these related questions for ten points each.
- 10 The owner of KFC, Long John Silver's, Pizza Hut, A&W Restaurants, and Taco Bell, this umbrella corporation was spun off from PepsiCo.  
**Answer: Yumm Brands**
- 10 One of the three little maids from school in the Mikado, she marries Nanki-Poo who is believed to be dead at the time.  
**Answer: Yum-Yum**
- 10 Homer sings this Ohio Express song while his father was watching the moon landing.  
**Answer: Yummy Yummy Yummy (I've got love in my tummy)**
18. He killed Hector in revenge for killing his buddy Patroclus. For ten points each ...
- 10 Name this Greek hero who subsequently dragged Hector's body behind his chariot.  
**Answer: Achilles**
- 10 Similarly, Achilles killed this Ethiopian king in revenge for killing Antilochus.  
**Answer: Memnon**
- 10 Achilles fell in love with this Amazon woman who aided Troy; like most love affairs, it ended in murder.  
**Answer: Penthesilea**
19. If you allow a gas to expand in volume without doing any work, then it cools down. For ten points each ...
- 10 Name this effect named for what two scientists who have the SI units of energy and temperature named after them?  
**Answer: James Prescott Joule and William Thompson or Baron Kelvin of Largs**
- 10 Since no heat is transferred to or from this system, this adjective is applied to the process.  
**Answer: adiabatic**
- 10 This process for employing the Joule-Thompson effect was developed by its namesake German, who also founded a Wiesbaden company, and uses two intertwined tubes to cool ascending and descending gas so that eventually liquified air squirts out of the jet.  
**Answer: Carl von Linde**
20. Sometimes called Mag Mell, it's ruled by Tethra, and it was where Oisín retired until he returned on his white steed. for ten points each...

10 Name this Celtic "land of youth."

**Answer:** Tir na nOg

10 The gene nanog is thought to allow for these pluripotent cells from the inner cell mass to stay in their undifferentiated state.

**Answer:** embryonic stem cells

10 The *Wanderings of Oisín and Other Poems* was the first collection of poems by this Irish author who also wrote *Lapis Lazuli*.

**Answer:** William Butler Yeats