complex number is Gaussian if its a and b components are both this type of number. The (\*) rational numbers can be written as a fraction of two numbers from this set. For 10 points, name this set of numbers that includes the natural numbers, their negative counterparts, and zero. ANSWER: integers 3. The city where this event took place lost hundreds more lives forty-four years later in the Eastland

states that there is no set with a cardinality between those of the real numbers and this set. A

disaster. The date on which this event took place saw a similar and more deadly catastrophe in Peshtigo, Wisconsin. In the aftermath of this event, Joseph Medill was elected mayor, and the need for (\*) architects led many designers, such as Louis Sullivan, to move in permanently. For 10 points, name this event which originated on De Koven Street in a barn belonging to the O'Learys and displaced 100,000 people in 1871.

ANSWER: Great Chicago Fire of 1871

4. In one work by this playwright, a traveling sculptor reminds a woman of her broken engagement to a sailor. In a later play by this author, the daughter of that heartbroken woman persuades a man to put a wreath on top of a house. This creator of Hilda Wangel also wrote about a woman who financed a trip to Italy by forgery, leading to blackmail by (\*) Krogstad. For 10 points, name this author of The Lady From the Sea, The Master Builder, and a play in which Nora Helmer slams the door on middle-class Norwegian values, A Doll's House. ANSWER: Henrik Johan Ibsen

019-11-29-12105

5. The treaty ending this war required the dismantling of French fortifications at Dunkirk, and ceded Savoy and Nice to Victor Amadeus II. The main treaty ending this war was supplemented by the treaties of Rastadt and Baden. Its corresponding war in America was known as Queen Anne's War. The Duke of Marlborough won the Battle of Blenheim (BLEN-em) during this war. This war started after (\*) Charles II died and left his throne to a member of the House of Bourbon. For 10 points, name this early eighteenth century war that was ended by the Peace of Utrecht. ANSWER: War of the Spanish Succession

030-11-29-12106

#### 1. For a period, it was customary for occupants of this office to retire to monasteries and become "cloistered." One holder of this office asserted its power in the Kemmu Restoration; an earlier one died at age six after losing an important sword at an 1185 naval battle. A twentieth century holder of this office gave the Jewel Voice Broadcast, renouncing his (\*) divinity and ending World War II. For 10 points, name this office that sits on the Chrysanthemum Throne and is currently held by Akihito. ANSWER: Emperor of Japan [or obvious equivalents; or tenno]

2. The ranges of the floor and ceiling functions are both equal to this set. The continuum hypothesis

019-11-29-12102

064-11-29-12103



6. In one lecture, this thinker described his resolution of a debate about a man chasing a squirrel around a tree. This man wrote an essay that describes a reasonable way to think something is true without proper evidence called "The Will to Believe." This man contracted to write a textbook that resulted in his writing the two-volume work, (\*) *The Principles of Psychology*. For 10 points, name this American philosopher who used the work of Charles Sanders Peirce ("purse") to develop the philosophy of pragmatism.

ANSWER: William James

7. One of this man's operas ends in the Louisiana desert as a woman dies in the arms of her lover, the Chevalier des Grieux (shev-AHL-ee-ey day GROO). This composer of *Manon Lescaut* (les-COW) also wrote an opera about two men competing for the love of Minnie entitled *The Girl of the Golden West*. Another of his works ends with Cio-Cio San (cho-cho san) stabbing herself with a sword. The seamstress (\*) Mimì dies in the presence of poor students in another work by him. For 10 points, name this composer of *Madama Butterfly* and *La Bohème*.

ANSWER: Giacomo Antonio Domenico Michele Secondo Maria Puccini

030-11-29-12108

8. One author from this country is known for his autobiographical work *The Days*. In addition to Taha Hussein, this country has produced an author who wrote about the assassination of this country's president in *The Day the Leader Was Killed*. That author also wrote novels such as *The Thief and the Dogs* and (\*) *Palace Walk*. For 10 points, name this home of Naguib Mahfouz whose literature also includes *The Book of the Dead* and was often written on papyrus. ANSWER: Arab Republic of **Egypt** [or **Misr**]

024-11-29-12109

9. One novel set in this city features Miss Trixie, who demands a holiday turkey from her employers at Levy Pants, and Burma Jones, a janitor at the Night of Joy. That work centers on a figure who quotes Boethius and disdains "that minx" Myrna Minkoff, Ignatius J. Reilly. John Kennedy Toole's *A Confederacy of Dunces* is set in this city, which is also the setting of a play about a character who (\*) "has always depended on the kindness of strangers," Blanche DuBois. For 10 points, name this setting of Tennessee Williams' *A Streetcar Named Desire*. ANSWER: New Orleans

082-11-29-12110

10. A driving force in the creation of this sect was Gerald Brousseau Gardner. One of its central beliefs is a namesake "Rede" which states "If it harm none, do what you will." Alexander Sanders started this religion's "Dianic" branch, and most of its practitioners worship a male deity termed the "Horned God." Adherents to this faith worship a (\*) female deity usually called "the Goddess" in small groups called "covens." For 10 points, name this Neopagan movement whose practitioners are often called witches.

ANSWER: Wiccan [prompt on "Witchcraft"]

015-11-29-12111

11. This politician won a landslide general election over Michael Foot and David Steel thanks to a split between the SDP-Liberal Alliance and the Labor Party. This Prime Minister was targeted in a bombing of the Brighton Hotel and was replaced by John Major after an unpopular poll tax called the Community Charge. Other actions by this leader included bringing Britain into the (\*) Gulf War and invading the Falkland Islands. For 10 points, name this Conservative Prime Minister of Britain known as the Iron Lady.

ANSWER: Margaret Hilda Thatcher

12. A recent ruling against this legislation was criticized for its neglect of the Necessary and Proper Clause. McDonald's was issued a waiver for its hourly employees under this legislation, and the Congressional Budget Office has claimed this law will cut \$143 billion from the federal deficit by 2020. It will allow for the creation of high-risk pools, and already mandates an 80 percent (\*) medical loss ratio for insurers. It also allows children to stay on their parents' plans until age 26. For 10 points, name this 2010 health care bill.

ANSWER: Patient Protection and Affordable Care Act

13. The characteristic feature of this phylum of animals is composed of a matrix of conchiolin (conk-EYE-o-lin) which binds to aragonite. The ctenidia (ten-ID-ee-uh) are a breathing apparatus in this phylum which includes periwinkles and conniwinks. The chiton (KAI-ton) is an extremely primitive member of this phylum, whose members possess a scraping feature used for collecting food called the radula (RAD-yoo-luh). Among the classes found in this phylum are cephalopods, (\*) gastropods, and bivalves. For 10 points, name this class of shelled invertebrates that includes mussels and clams.

ANSWER: mollusca [or mollusks]

14. At a dinner party in this novel, the protagonist produces two flowers he obtained while walking towards the Palace of Green Porcelain. Earlier, the protagonist believes that the title object is hidden in a statue of a sphinx by a race of ape-like creatures that live underground. Those creatures, the (\*) Morlocks, are contrasted with Weena and the rest of the Eloi in this novel, which begins with a discussion of the fourth dimension. For 10 points, name this novel by H.G. Wells, in which the protagonist travels to the future.

ANSWER: The *Time Machine* 

083-11-29-12115

15. Andy Rubin is one of the key people behind this software platform. The virtual machine for this software is known as Dalvik and a previous flagship implementation was Nexus One. Releases of this software have been named after deserts such as Eclair and Froyo. Its main competitor is iOS (eye os), and this operating system is featured in a similarly named (\*) Motorola product that "does." For 10 points, name this operating system, bought by Google in 2005, which is found on many smartphones and features a green robot logo. ANSWER: Android OS

084-11-29-12116

015-11-29-12112

082-11-29-12113

16. The CAR and CDR operators work on this data structure. It's not a tree, but this structure may include sentinel nodes. It can be used to implement a stack efficiently since inserting and removing the first element takes constant time. In the worst case it will take Big-O of n time to insert and remove elements from an n-element instance of this data structure. (\*) For 10 points name this type of list which in which each data entry is associated with a pointer to the next item in the list. ANSWER: <u>linked list</u> [prompt on <u>list</u>; or <u>free list</u> before "circular" is read]

093-11-29-12117

003-11-29-12118

17. This man addressed his aesthetic theories in his lecture "Ten O'Clock," which was collected in his book *The Gentle Art of Making Enemies*. Many of the letters in that work address those who attacked his work *The White Girl* and a painting that was likened to "flinging a pot of paint in the public's face." This painter of (\*) *Nocturne in Black and Gold: The Falling Rocket* is better known for a painting of a woman seated in a chair against a wall. For 10 points, name this painter of *Arrangement in Grey and Black: The Artist's Mother*.

ANSWER: James Abbott McNeill Whistler

18. Along with sodium and aluminum, this element makes up the uncommon mineral cryolite. This element bound to carbon can be used to create Teflon. Freon was a brand name given to another combination of this element with carbon and chlorine, which is considered a key agent in ozone layer depletion. This halogen has an electronegativity of 4.0, making it the (\*) most electronegative element. For 10 points, name this element whose anion is used in a process that makes public water healthier for

ANSWER: fluorine

teeth.

19. The Ripon (RIP-uhn) Falls at the outflow of this body of water are now submerged. Its features include the Winam (WIN-am) Gulf and the Sese (SAY-SAY) archipelago. Its Speke (SPEAK) Gulf is named for one explorer of this lake. Much of the water coming into this lake goes through the Kagera (kuh-GAIR-uh) River. Kampala (KAHM-pah-lah), the capital of (\*) Uganda, is located nearby. This lake's only outlet is the Nile. For 10 points, name this largest lake by surface area in Africa, named for a British monarch.

ANSWER: Lake Victoria [or Victoria Nyanza]

001-11-29-12120

20. Dvorak's (duh-VOHR-shack's) concerto for this instrument quotes his song "Cypresses" and was inspired by the death of Josefina Cermakova (chair-muh-KOH-vuh). Other virtuosi (ver-tyoo-OH-see) of this instrument include Pablo Casals (kuh-SAHLS) and Mstislav (MIST-ih-slav) Rostropovich (ROSS-tro-POH-vitch). Jacqueline du Pre (doo PRAY) performed Edward Elgar's Concerto for this instrument in B Minor. Johann Sebastian Bach wrote six suites for this (\*) unaccompanied instrument. For 10 points, name this instrument notably played by Yo-Yo Ma. ANSWER: violon<u>cello</u>

080-11-29-12121

21. This man's earliest political post was Governor of Seringapatam, to which he was appointed by his older brother, Lord Mornington. Under this man's government, the Test Act was repealed and the Catholic Emancipation Act was passed. He succeeded Castlereagh as Britain's delegate to the Congress of Vienna. He is the only man to have concurrently held the offices of (\*) Prime Minister and Commander-in-Chief of the British Army. For 10 points, name this politician, who was given a dukedom a year before he ended the Napoleonic Wars with a victory at Waterloo. ANSWER: Duke of Wellington [or Arthur Wellesley, Duke of Wellington]

003-11-29-12122

22. One character in this work has the ability to understand birdsong but must not tell anyone what he hears under penalty of death. After that character banishes his wife for insolence, his daughter falls under the care of the evil hunchback Manthara. Later in this poem, Manthara suggests to Kaikeyi (kai-KAY-ee) that she demand her son Bharata be installed as the next king. The main conflict of this work begins when a (\*) demon disguised as a golden deer helps capture Sita. For 10 points, identify this Hindu epic in which the title hero defeats Ravana. ANSWER: the <u>Ramayana</u>

079-11-29-12123

23. The speaker of this poem says that Ruth "stood in tears amid the alien corn." The speaker says, "A drowsy numbness pains my sense as though of hemlock I had drunk" and admits that he "has been half in love with easeful death." The speaker of this poem says that the addressee "wast not born for death" before wondering of the addressee, (\*) "Was it a vision or a waking dream...do I wake or do I sleep?" For 10 points, name this ode to an "immortal Bird" by John Keats. ANSWER: "<u>Ode to a Nightingale</u>"



1. Identify some composers of requiem masses, for 10 points each.

[10] This composer left his requiem mass unfinished at his death in 1791. It was completed by Franz Süssmayr.

ANSWER: Wolfgang Amadeus Mozart

[10] This composer included poems by Wilfrid Owen in his *War Requiem*. He also composed *The Young Person's Guide to the Orchestra*.

#### ANSWER: Edward Benjamin Britten

[10] This composer's requiem was called the *Grande Messe des Morts*. His best known composition was written for Harriet Smithson.

#### ANSWER: Hector Berlioz

024-11-29-12201

2. Critics compare this scene to Moses handing down the Old Covenant after climbing Sinai. For 10 points each:

[10] Name this speech given by Jesus including eight beatitudes, and a discussion of Salt and Light. It concludes by warning against false prophets.

#### ANSWER: Sermon on the Mount

[10] In the Sermon on the Mount, Jesus puts forward the beatitudes including saying that these people are blessed, "for they shall inherit the earth."

#### ANSWER: meek

[10] The Sermon on the Mount is found in this gospel, which begins by recounting the lineage of Jesus. ANSWER: Gospel According to <u>Matthew</u>

002-11-29-12202

3. Gudrun's relationship with Loerke earns the ire of the jealous Gerald Crich, who dies in the Alps after trying to kill Gudrun. For 10 points each:

[10] Name this British novel about the love lives of the sisters Ursula and Gudrun Brangwen.

#### ANSWER: *Women in Love*

[10] This novel sparked an obscenity trial because the protagonist, Constance Reid, has an affair with the gamekeeper Oliver Mellors after her husband Clifford is paralyzed in World War I.

#### ANSWER: Lady Chatterley's Lover

[10] This British author wrote Women in Love and Lady Chatterley's Lover.

ANSWER: David Herbert Lawrence

079-11-29-12203

4. This effect can be seen in the structure and movement of hurricanes and the Rossby number is the ratio of inertial force to this. For 10 point each:

[10] Name this force that causes a deflection that arises from a rotating reference frame.

## ANSWER: Coriolis force [or Coriolis Effect]

[10] The strength of the Coriolis effect on Earth is approximately two times the object's velocity times the sine of latitude times omega, where omega is this quantity measured in radians per second.

#### ANSWER: angular velocity

[10] This man names another force in a rotating reference frame and a theorem stating that any rotation can be described using three angles.

ANSWER: Leonhard Euler

5. Answer some questions about a certain branch of philosophy, for 10 points each.

[10] This is the branch of philosophy which deals with the nature of beauty.

## ANSWER: aesthetics

[10] According to this pessimistic philosopher, art is a way to escape the suffering caused by the Will.

## ANSWER: Arthur Schopenhauer

[10] An important concept in aesthetics is this one, which was the subject of a treatise by Longinus. It refers to the quality of immeasurable greatness.

# ANSWER: the **sublime**

024-11-29-12205

6. This frankly hilarious story ends with the title character throwing the eyes of his livestock at Gretel, his fiancee. For 10 points each:

[10] Identify this story about a boy who heeds the last piece of advice his mother gives to him, causing a sequential mishandling of Gretel's gifts. An example involves him suffocating a kid in his pocket after his mother had told him to carry a knife in that manneer.

# ANSWER: "<u>Clever Hans</u>"

[10] "Clever Hans" is one of the fairy tales collected along with "Cinderella" and "Rapunzel" by Jacob and Wilhelm, two brothers with this surname.

# ANSWER: Grimm

[10] The Brothers Grimm succeeded this French master of fables, whose *Tales of Mother Goose* includes the stories about Little Red Riding Hood and Tom Thumb.

# ANSWER: Charles Perrault

020-11-29-12206

7. This kind of theory was outlined in the *Almagest*. For 10 points each:

[10] Name this theory that the sun, moon, and planets all revolve around the Earth.

ANSWER: **geocentrism** [or **geocentric** theory; accept **Ptolemaic** system, but do not reveal the answer if it is not given]

[10] This Greek astronomer developed the most extensive and widely accepted geocentric theory in the *Almagest*.

# ANSWER: Claudius Ptolemy

[10] This was the name given to the tiny circular orbits of planets. Their centers moved along a larger circle, known as the deferent.

# ANSWER: **epicycle**s

003-11-29-12207

8. This man depicted an apocryphal scene from George Washington's life in *Parson Weems' Fable* and George Washington is also indirectly present in his *Daughters of the Revolution*. For 10 points each: [10] Name this American artist of *Arnold Comes of Age*, *The Birthplace of Herbert Hoover*, and *Iowa Cornfields*.

ANSWER: Grant De Volson Wood

[10] This Wood painting depicts a woman and a man in front of a house. The man holds a pitchfork. ANSWER: *American Gothic* 

[10] Wood's depiction of this event from American history uses a bird's eye view of a a street in a small town with round trees in the background. One person and a horse on the street are the only figures present. ANSWER: <u>The Midnight Ride of Paul Revere</u> [accept equivalents like <u>Paul Revere's Ride</u>]

9. The second one of these in British history is scheduled for 2012. For 10 points each:

[10] Name this event which, when it first occurred in 1897 at the urging of Joseph Chamberlain, featured visits from the PMs of various dominions and parades through the streets of London.

# ANSWER: Diamond Jubilee

[10] The Diamond Jubilee celebrated the sixtieth year of rule by this queen, whose name denotes the late nineteenth-century era of British history and culture.

ANSWER: Alexandrina Victoria of England

[10] The time betweeen Victoria's Golden and Diamond Jubilees was marked by the passage into and out of the prime ministry by this rival of Disraeli and Liberal leader, whom Victoria disliked. ANSWER: William Ewart **Gladstone** 

10. This province was a self-governing Dominion from 1907 to 1933, but debt problems forced it to eventually give up independence and join Canada in 1949. For 10 points each:

[10] Name this Canadian province named for both its largest island and a nearly-uninhabited mainland region.

# ANSWER: Newfoundland and Labrador

[10] Most people in Newfoundland live on this peninsula in the southeastern corner of the island, which is home to the capital St. Johns.

# ANSWER: Avalon

[10] Labrador is home to a major hydroelectric dam on this river, which was known as Grand River until it was renamed for a certain British Prime Minister in 1965.

# ANSWER: Churchill River

082-11-29-12210

11. Recent holders of this position have been Shinz? Abe and Taro Aso. For 10 points each.

[10] Name this position whose holder is a member of the Diet and officially appointed after a vote by the Emperor.

## ANSWER: Prime Minister of Japan [or Naikaku s?ri daijin]

[10] This man is prime minister of Japan as of February 2011.

ANSWER: Naoto <u>Kan</u>

[10] Naoto Kan is a member of this party that until recently was the opposition.

# ANSWER: **Democratic Party of Japan** [or **DPJ**]

001-11-29-12211

12. This man founded and served as the first president of the Fifth Republic. For 10 points each:

[10] Name this man who earlier led the Free French Forces during World War II.

# ANSWER: Charles André Joseph Marie de Gaulle

[10] The Free French fought against this collaborationist government that used the slogan "Work, Family, Fatherland."

ANSWER: Vichy France

[10] This World War I hero of the Battle of Verdun lost some of his reputation due to his leadership role in the government of Vichy France.

ANSWER: Philippe Petain

13. The Miller-Rabin is one test of determining if a number is of this type, the opposite of composite. For 10 points each:

[10] Name this type of number whose only factors are one and itself.

## ANSWER: prime numbers

[10] A project known as GIMPS searches for these prime numbers of the form 2 to the p power minus one. Seven and 31 are examples.

#### ANSWER: Mersenne prime

[10] Two numbers are given this term if they have no common factor besides one. Eight and 15 are examples even though neither one are prime.

## ANSWER: <u>co-prime</u>

14. This proteins two states are called g and f. For 10 points each:

[10] Name this protein that makes up microfilaments.

## ANSWER: actin

[10] Microfilaments and microtubules are two major components of this component that gives structure, shape, and organization to the cell.

## ANSWER: cytoskeleton

[10]This protein is as an indicator of some cardiac problems. The c form binds calcium which then releases a similarly named protein, allowing myosin to bind the microfilament.

## ANSWER: troponin

001-11-29-12214

15. This band asked "How can I convinces you what you see is real" on "The Search is Over," which joined "High on You" and "First Night" on their 1985 album *Vital Signs*. For 10 points each: [10] Name this band which asked "Is it East versus West or man against man" on their track "Burning Heart."

## ANSWER: <u>Survivor</u>

[10] *Survivor* is best known for this montage stable about "a man and his will to survive" and "Risin' up to the challenge of our rival."

## ANSWER: "Eye of the Tiger"

[10] "Eye of the Tiger" and "Burning Heart" were on the soundtrack to this 1985 film in which Sylvester Stallone plays a boxer who fights Ivan Drago.

## ANSWER: *Rocky IV*

015-11-29-12215

16. Eisenstein is sentenced to a brief stint in jail at the beginning of this operetta. For 10 points each: [10] Name this operetta whose middle act takes place at a masquerade ball held at Orlovsky's house. ANSWER: Die **Fledermaus** [or The **Bat**]

[10] Die Fledermaus is by this "waltz king" who composed the music for *Tales from the Vienna Woods*. ANSWER: Johann Strauss Jr [or Johann Strauss II; or Johann Strauss the Younger]

[10] This Johann Strauss Jr waltz is featured in the film 2001: A Space Odyssey . It is named for a river. ANSWER: The **Blue Danube** 

001-11-29-12216

17. This man wrote a story "Draft Board Nights" about a man who is repeatedly rejected for military service due to poor eyesight in his story collection *My Life and Hard Times*. For 10 points each:[10] Name this American humorist who wrote about the daydreams of the title character in *The Secret Life* 

of Walter Mitty.

# ANSWER: James Thurber

[10] James Thurber served as managing editor for this magazine that first published John Updike's story "A&P" and contained the film commentary of Pauline Kael.

# ANSWER: <u>The New Yorker</u>

[10] This writer wrote the "Constant Reader" column for the New Yorker. A founder of the Algonquin Round Table, she is said to have asked, "How can they tell?" when told of Calvin Coolidge's passing. ANSWER: Dorothy **Parker** [or Dorothy **Rothschild**]

030-11-29-12217

18. This author is supposedly beloved for poetry collections like "The Journals of Susanna Moodie" and "The Circle Game." For 10 points each:

[10] Identify this author who wrote about Marian MacAlpin's gradual loss of appetite in *The Edible Woman* and a novel about Offred.

## ANSWER: Margaret Eleanor Atwood

[10] Offred is the protagonist of this dystopian novel by Atwood, in which capacity she serves as a sexual object for the Commander and his wife Serena Joy.

## ANSWER: The Handmaid's Tale

[10] *The Handmaid's Tale* is set in this location, a fictionalized 21st century version of the United States following a revolution.

## ANSWER: Republic of Gilead

020-11-29-12218

19. This labor union had operated in Australia in addition to the United States. For 10 points each:

[10] Name this union founded by Uriah Stephens and led by Terence Powderly that supported the Chinese Exclusion Act.

## ANSWER: Noble and Holy Order of the Knights of Labor

[10] This radical union compiled organizing songs in its "Little Red Songbook." It was founded by Big Bill Haywood, Daniel De Leon, and Eugene V. Debs.

## ANSWER: IWW [or Industrial Workers of the World; or Wobblies]

[10] Members of this union striked against UPS in 1997. It was readmitted to the AFL-CIO in 1987, and one of its former leaders, Jimmy Hoffa, disappeared in 1975.

ANSWER: International Brotherhood of <u>Teamsters</u>, Chauffeurs, Warehousemen and Helpers of America 030-11-29-12219

20. Lin Zexu sent a letter to Queen Victoria asking her to ban the trade of this product, and confiscated and destroyed tons of it in 1839. For 10 points each:

[10] Name this drug which prompted a namesake series of wars in nineteenth century China.

## ANSWER: opium

[10] After the first Opium War, the British forced China to sign this first of the unequal treaties.

ANSWER: Treaty of **Nanking** [or Treaty of **Nanjing**]

[10] This British Prime Minister authorized the Second Opium War. He served during the U.S. Civil War and gave the "Civis Romanus sum" speech.

ANSWER: Henry John Temple, 3rd Viscount Palmerston

21. CAM plants generally open these structures at night. For 10 points each:

[10] Name these pores found in a leaf which open to let in gas from the atmosphere.

# ANSWER: **stoma**ta

[10] The carbon dioxide brought in by the stomata is used in this plant process in which sunlight drives the reaction of carbon and water to form oxygen gas and sugar. It includes the dark reaction known as the Calvin Cycle.

# ANSWER: photosynthesis

[10] Stomata are flanked by these cells, which regulate the turgor pressure in order to facilitate the opening and closing of the stomata.

ANSWER: guard cells