

## ROUND 4

Tossup 1. **This character's wife borrows a scale with wax in the pan, which causes a gold coin to remain on the scale when she returns it. Later, this character's brother demands to know how he got the gold and is later cut into 4 pieces while trying to steal more gold from a (\*) magical cave. A servant-girl saves this character by stabbing the head thief during a "dance" with a dagger; in return, this character allows his son to marry that servant, Morgiana. For 10 points, name this character who uses the words "Open Sesame" on a cave full of gold, the title character of a story from the *1001 Arabian Nights*?**  
 ANSWER: Ali Baba

Bonus 1. He is popularly known as "Blade Runner". For 10 points each,  
 [10] Name this South African athlete who was put on trial in 2014 for the death of his girlfriend Reeva Steenkamp and who competes in track events even though his legs are amputated below the knee.

ANSWER: Oscar Pistorius

[10] A forensic psychiatrist testified that Pistorius had the generalized type of this class of disorders, which are caused by their namesake emotion and characterized by unnecessary worry, tension, or fear in normal situations.

ANSWER: Anxiety disorders

[10] Pistorius was eventually found guilty of this charge, which is equivalent to manslaughter in US law. It is defined in South Africa as "the unlawful negligent killing of a human being".

ANSWER: Culpable homicide

T2. **One song by this artist states that she forgot "the knowledge from the lessons that [she] went to". This artist of "No Better" ended an album with the phrase "People are talking; let 'em talk", and began an earlier extended playlist with the song "Bravado". This artist frequently mentioned pristine white teeth in order to represent teenage grandeur, and created the song (\*) "Yellow Flicker Beat" for the soundtrack of *Mockingjay*. This artist of "The Love Club EP" asserted that "the hounds will stay in chains" in one song, and stated that she'd "never seen a diamond in the flesh" in another. For 10 points, name this artist whose album *Pure Heroine* includes the singles "Team" and "Royals".**

ANSWER: Lorde [accept Ella Yelich-O'Connor] <TC>

B2. This poem usually appears at the end of collections of works by its author. For 10 points each,

[10] Name this poem in which the speaker requests, "May there be no sadness of farewell,/ When I embark" and "hope[s] to see [his] Pilot face to face" after performing the title action.

ANSWER: "Crossing the Bar"

[10] "Crossing the Bar" is by this poet, whose "Ulysses" hopes "to strive, to seek, to find, and not to yield" and who also wrote "'Tis better to have love and lost / Than to never have loved at all" in "In Memoriam, A.H.H."

ANSWER: Alfred, Lord Tennyson

[10] Tennyson also wrote this poem about the "Noble six hundred" who had "but to do or die", riding "Into the valley of Death" during the Crimean War.

ANSWER: "Charge of the Light Brigade"

T3. This phenomenon's namesake waves are the subject of an experiment that uses laser interferometry in order to detect ripples in spacetime; that experiment is NASA's LIGO. Loránd Eötvös conducted an experiment to confirm its equivalence principle using a (\*) torsion balance, which was also used by Henry Cavendish to find its namesake constant. This force is hypothetically carried by a namesake massless, spin-2 particle. Between two bodies, this force is directly proportional to the product of their masses according to Newton's Law of Universal this. For 10 points, name this weakest of the four fundamental forces, that causes objects to fall to the ground.

ANSWER: gravity or gravitational force

B3. Its artist was influenced by El Greco's *The Opening of the Fifth Seal*. For 10 points each, [10] Name this Cubist painting that features five nude prostitutes from Barcelona with African-mask-like faces who stand in front of a blue curtain.

ANSWER: Les Femmes d'Alger (O.J.)

[10] This painter of *Family of Saltimbanques* also created *Les Femmes d'Alger (O.J.)* and produced many famous works during his Blue Period. He is perhaps best known for his anti-war painting *Guernica*.

ANSWER: Pablo Ruiz y Picasso

[10] This painter helped found Cubism along with Picasso. Works by this artist include *Houses at l'Estaque* and *Port at Normandie*, and he invented the papier [pah-PYAY] collé technique seen in his *Fruit Dish and Glass*.

ANSWER: Georges Braque <TB>

T4. In one election, this man beat out the incumbent Eduardo Frei. This leader implemented the Vuskovic [Voos-koh-vich] economic plan. His election was allegedly tampered with by the CIA, resulting in the death of an Army commander who supported a separation of military and politics, René (\*) Schneider. This leader of the Unidad Popular nationalized his nation's copper industry and died in controversial circumstances with a gun in his hand at La Morena Palace. For 10 points, name this democratically-elected socialist ruler of Chile who was deposed in a coup by Augusto Pinochet.

ANSWER: Salvador Allende Gossens

B4. This experiment was partially inspired by the Adolf Eichmann trials. For 10 points each, [10] Subjects in this experiment were instructed to administer painful shocks to a "learner", against their conscience. 65% of subjects were willing to administer the full 450-volt shock in this experiment.

ANSWER: Obedience to Authority experiment [accept but do NOT reveal Milgram's obedience experiment]

[10] This Yale University scientist conducted the Obedience to Authority experiment. This man also performed the Small World experiment which shows that there are "six degrees of separation" between any two people.

ANSWER: Stanley Milgram

[10] Milgram coined this term to describe a phenomenon in which a "interactant" fails to detect that their conversation partner is merely a "speech shadower" repeating the words of a remote source. It was inspired by the title character of an Edmund Rostand play.

ANSWER: Cyranic [SEE-RAH-nic] illusion [accept Cyranoid in place or "Cyranic"]

**T5. In this novel, one character reads Lazarus' resurrection scene in the Bible to the protagonist. Nikolai confesses to a crime which leads the police investigator, Porfiry, to release the protagonist of this novel. Marfa Petrovna restores the good name of one character in this novel while Lebezyatnikov proves the innocence of another at a funeral banquet thrown with the protagonist's money. Svidrigailov and (\*) Luzhin both try to court Dunya, who eventually marries Razumihin, and this novel's protagonist falls in love with a devoutly Christian prostitute, Sonia. For 10 points, Raskolnikov murders a pawnbroker in what novel by Fyodor Dostoevsky?**

ANSWER: **Crime and Punishment** [or **Prestupleniye i nakazaniye**]

**B5. Why is the sky blue? For 10 points each,**

[10] Name this type of scattering which is responsible for the blue color of the sky, in which the particles that scatter the light are much smaller than the wavelength of light and have refractive indices close to one.

ANSWER: **Rayleigh** scattering

[10] When particle size approaches wavelength size, this other kind of scattering named for a German physicist occurs, provided that the particles are spherical. This computational method uses the electric and magnetic fields of the dielectric sphere to determine how much the light is scattered and where it goes.

ANSWER: **Mie** scattering [accept **Mie** theory or **Mie** solution]

[10] Rayleigh scattering and Mie scattering are two examples of this type of scattering in which the kinetic energy of the particles is conserved, and thus the wavelength of scattered light is the same as that of the incident light.

ANSWER: **elastic** scattering

**T6. This ruler faced a revolt of Ralph de Gael and Roger de Breteuil [Bruh-TUH-ee] in the "Revolt of the Earls". His marriage to the daughter of Baldwin V of Flanders was possibly prohibited by Pope Leo IX. This son of Herleva claimed his royalty through his grandfather, Richard the Good. This illegitimate son of Robert I commissioned the (\*) Domesday book and the White Tower of London. His greatest victory came when he defeated a leader who had previously defeated Harold Hardrada; that leader was Harold Godwinson. For 10 points, name this King of Normandy who secured the English throne at the Battle of Hastings.**

ANSWER: **William the Conqueror**, [accept **"William I"**, **"William the Bastard"**, and **"William II, Duke of Normandy"**]

**B6. Quetzalcoatl was part of this culture's myth system. For 10 points each,**

[10] Name this culture that venerated the "feathered serpent" and thought Hernan Cortes was a deity due to his appearance in a "One Reed" year.

ANSWER: **Aztec** culture

[10] Tlaloc was the Aztec god of water and this phenomenon. Children were sacrificed to him after planting season to bring more of this phenomenon, especially if the children cried.

ANSWER: **Rain**

[10] This jaguar deity associated with smoking mirrors and obsidian is a rival of Quetzalcoatl. He became the first of the five suns in Aztec cosmology.

ANSWER: **Tezcatlipoca**

T7. In Hindu mythology, Draupadi is “born” by walking out of one of these entities. The first words of the Rig Veda are a hymn to the god of this entity, Agni. Prahalda was notably not killed when Holika jumped with him into one of these, giving rise to the festival Holi. Ceremonies involving this classical element often include yajna, or sacrifices, and (\*) Sita threw herself into one of these entities to prove her faith in the Ramayana. Seven steps are taken around one of these entities during Hindu weddings. For 10 points, name this classical element exemplified by its use during cremation.

ANSWER: fires [accept ceremonial fire or and other clear-knowledge equivalents and variations] <TC>

B7. Remi Boncoeur invites the protagonist of this novel to San Francisco. For 10 points each, [10] Give this Jack Kerouac novel in which Sal Paradise travels west with Dean Moriarty. They meet Carlo Marx in Denver and Old Bull Lee in New Orleans before Moriarty leaves Sal in Mexico City.

ANSWER: On the Road

[10] In this Frost poem, the namesake of a collection by him, “Two roads diverged in a yellow wood, and I took the one less traveled by, and that has made all the difference”.

ANSWER: “The Road Not Taken”

[10] Bessie marries Dude even though he is only 16, and Jeeter and Ada burn to death when a broom sedge fire spreads to their house, in this novel about the Lester family by Erskine Caldwell.

ANSWER: Tobacco Road

T8. In prokaryotes, SeqA prevents this process from occurring when the initiation sites are hemi-methylated. Single-stranded binding proteins and an RNA primer are added at this process’ namesake fork. Topoisomerase [toh-poh-eye-SOH-muhr-eyz] temporarily cuts one molecule so that (\*) helicase can unwind that molecule in preparation for this process. Okazaki fragments formed during this process are later joined by ligase. The Meselson-Stahl experiment showed that this process is semiconservative, and it always occurs in the 5-prime to 3-prime direction. For 10 points, name this process in which DNA polymerase is used to copy a cell’s genetic material.

ANSWER: DNA replication [accept just replication after “DNA” has been mentioned, prompt otherwise; accept clear knowledge-equivalents]

B8. She was featured on the Silver Dollar Coin. For 10 points each:

[10] Name this suffragist, who was arrested for voting in the 1872 election, but did not attend the Seneca Falls Convention.

ANSWER: Susan Brownell Anthony

[10] This contemporary and friend of Anthony’s wrote *The Women’s Bible*, and with Lucretia Mott, helped to organize the Seneca Falls Convention.

ANSWER: Elizabeth Cady Stanton

[10] At the Seneca Falls Convention, Stanton helped to draft this document, modeled after the Declaration of Independence, which was signed by 100 attendees.

ANSWER: Declaration of Sentiments [or Declaration of Rights and Sentiments]

T9. In one play by this author, Henry Carr stars in a production of *The Importance of Being Earnest* in Zurich, where he comes into contact with Tristan Tzara, James Joyce and Vladimir Lenin. In another play by this author, Bernard uses letters from his copy of *The Couch of Eros* to support his theory that (\*) Lord Byron killed Ezra Chater in a duel. In that play, Thomasina asks Septimus what a “carnal embrace” is. This author of *Travesties* and *Arcadia* wrote a play where two characters encounter the Tragedians after a coin lands on heads 92 times in a row. For 10 points, name this playwright of *Rosencrantz and Guildenstern are Dead*.

ANSWER: Tom Stoppard

B9. Imagine yourself in the year 500 AD. For 10 points each:

[10] Your journey begins in Constantinople, the capital of this empire. In it currently, the future emperor Justinian I is currently studying.

ANSWER: Byzantine Empire [accept "Eastern Roman Empire"]

[10] You then head eastward Ctesiphon, the capital of this empire. Ruling over all of modern-day Iran, this Zoroastrian empire succeeded the Parthian Empire and was defeated by the Rashidun Caliphate.

ANSWER: Sassanid or Sassanian Empire

[10] You then head to Carthage, the capital of this Barbarian kingdom in North Africa. A previous major leader of this people was named Geiseric and sacked Rome in 455 AD.

ANSWER: Vandal(s) Kingdom

T10. **One figure on the left of this painting holds a large vase, while on the far right a miniature St. Jerome is painted wearing a toga and unrolling a scroll. The aforementioned figure is one of six angels that crowd around the titular woman, whose foot rests on a pillow and is visible from underneath a (\*) blue satin robe. A very large, nude, infant Christ is sitting in the title figure's lap. This painting, displayed at the Uffizi Gallery, shows Virgin Mary with the title elongated feature. For 10 points name this Mannerist painting by Parmigianino.**

ANSWER: Madonna of the Long Neck [accept Madonna with the Long Neck or Madonna and Child with Angels and St. Jerome or Madonna dal collo lungo] <TB>

B10. For 10 points each, give the following about evolutionary biology.

[10] In the absence of evolutionary pressures such as mutations, selection, or mate-choosing, this model predicts that frequencies of alleles  $p$  and  $q$  can be modelled by the equation  $p^2 + 2pq + q^2 = 1$ .

ANSWER: Hardy-Weinberg law/model/principle/equilibrium

[10] This man proposed that traits could be inherited by offspring based on whether the parent used them or disused them. According to his theory, if you lost your right arm your children would be born without right arms.

ANSWER: Jean-Baptiste Lamarck

[10] Much after Darwin, Niles Eldredge and Stephen Jay Gould observed "jumps" in the fossil record, which led them to propose this theory: evolution occurs in rapid succession after long periods of stasis.

ANSWER: punctuated equilibrium

T11. **In one work, this writer distinguishes between the natural and the moral types of the titular concept, the latter of which originated when the first man enclosed a piece of land with a fence and claimed, "This is mine." That work by this man claims that humans are motivated by *amour de soi* and (\*) *amour propre*, or pity and self-preservation. In another work by this man, the title character learns from the Savoyard Priest during the 4<sup>th</sup> of 5 developmental stages of his education. For 10 points, name this French author of *Discourse on Inequality* and *Emile*, who wrote "Man is born free but everywhere he is in chains" in his *The Social Contract*.**

ANSWER: Jean Jacques Rousseau <FK>

B11. During this time period, worship of the Emperor was reinstated. For 10 points each:

[10] Name this period of Japanese history after the fall of the Tokugawa Shogunate. It saw the institution of modernizing reforms and the rise of Japanese military power during the Sino-Japanese and Russo-Japanese wars.

ANSWER: Meiji Period

[10] During the Kamakura Shogunate, these invaders under Kublai Khan were turned away from Japan by the *kamikaze*, or divine wind.

ANSWER: **Mongols**

[10] This period of Japanese history included the publishing of the *Man'yōshū*, the oldest collection of Japanese poetry. Its namesake capital was modeled after Chang'an in China, and it was followed by the Heian period.

ANSWER: **Nara** Period

**T12. The so-called "Third" of these events led to the scientific discoveries of Paul-Louis Simond and Alexandre Yersin. Another of these events led to the institution of the *trentine* in Venice, which was later extended to the 40-day (\*) *quarantena*. That event was supposedly begun at the Siege of Caffa when Tartars catapulted bodies over city walls. Another of these events took place in London the year before the Great Fire, as well as one which caused, by one account, 10,000 deaths in Constantinople daily. For 10 points, name these events which include that of Justinian and the Bubonic type.**

ANSWER: **plagues** [accept Bubonic **Plague** and specific derivations such **"Black Death"** or the **"Plague of Justinian"**]

**B12. Despite being third in chronological order, Sophocles wrote this Theban play first. For 10 points each, [10] Name this play in which the title character defies Creon's orders and buries her brother's body. Her punishment is to be buried alive, but she hangs herself instead, causing Haemon to stab himself when he finds her body.**

ANSWER: **Antigone**

[10] Antigone's brothers are these two figures who vie for the leadership of Thebes, but are cursed by their father, Oedipus, to die at the hands of the other. Name both siblings.

ANSWER: **Etiocles** and **Polynices** [accept in any order, must have both]

[10] *Antigone* picks up where an earlier play, *Seven Against Thebes*, left off. *Seven Against Thebes* is by this first of the three ancient Greek tragedians, who also wrote *The Eumenides* in his *Oresteia* trilogy.

ANSWER: **Aeschylus**

**T13. One of these entities named El Teide is located on Tenerife in the Canary Islands. Another one of these entities created the horseshoe-shaped Sciara del Fuego and names a process which involves short explosions with no defined ejection column. That one of these entities is called (\*) Stromboli. Fallout from another one of these entities in Washington state sparked largest debris flow in history and created a caldera. A notable one of these entities poses a major threat to the city of Naples. For 10 points, name these structures exemplified by Mount St. Helens and Mt. Vesuvius.**

Answer: **Volcanoes**

**B13. Italian Renaissance politics were pretty crazy. For 10 points each:**

[10] Girolamo Savonarola, a Dominican friar, preached of an imminent invasion by a church reformer and a great flood in this Italian city that was ruled by the Medici family.

ANSWER: **Florence**

[10] Savonarola was excommunicated by this Borgia pope who recognized his son illegitimate Cesare [CHEH-zah-rey]. He formed a Holy League called the League of Venice against the French invasion.

ANSWER: Pope **Alexander VI** or **Rodrigo** Borgia or **Roderic** de Borja [prompt "Alexander," prompt "Borgia"]

[10] This king of France began the first phase of the Italian Wars after the urging of Ludovico Sforza, the Duke of Milan, and was hailed by Savonarola as the church reformer he had prophesied.

ANSWER: **Charles VIII**, "The **Affable**" [prompt "Charles," accept name with number or epithet]

**T14. Frederic Clements' classical theory divides this phenomenon into 6 stages including nudation and ecesis [eh-SEE-sis]. This process can be classified into allogenic and autogenic types. Early in this process, r-selected species will dominate, but K-selected species will eventually outcompete them.** (\*) Pioneer species are required for the primary type of this phenomenon, which occurs in places devoid of soil, while the secondary type occurs after disruptions, such as forest fires. For 10 points, name this process by which a series of communities are established and replaced over time, ultimately resulting in a climax community.

ANSWER: ecological succession

**B14.** So, I'm pretty sure that not all composers were white males. For 10 points each,

[10] This composer of the opera *Treemonisha* was famous for various rags and ragtime-influenced pieces, such as *Maple Leaf Rag* and *The Entertainer*.

ANSWER: Scott Joplin

[10] This composer's wife, Clara, was an extremely famous composer and performer in her own right. He also wrote the *Spring* and *Rhenish* Symphonies.

ANSWER: Robert Schumann

[10] This female medieval composer wrote the *Ordo Virtutum* in addition to many virtue plays, and was a prolific composer for monophonic religious music.

ANSWER: St. Hildegard of Bingen [accept "von" in place of "of"]

**T15. In this novel, the protagonist's coworkers Joe and Frank introduce him as "Special-Ed" in a bar. That protagonist gets angry when he realizes Gimpy has been shortchanging Mr. Donner, and he later quits his job at a bakery. This novel's protagonist is the subject of an experiment by Dr. Nemur and Dr. Strauss at Beekman University, where he is taught by Alice (\*) Kinnian.** That protagonist later sleeps with the artist Fay Lillman and cares for the titular mouse which undergoes the same intelligence-enhancing treatment that he does. For 10 points, name this novel about Charlie Gordon, written by Daniel Keyes.

ANSWER: Flowers for Algernon

**B15.** This artist's depictions of trees include *Gray*, *Red*, and *Flowering Apple* ones. For 10 points each:

[10] Name this artist famous for simplified paintings of lines and rectangles, including his *Composition in Red, Blue, and Yellow* and *Trafalgar Square*.

ANSWER: Piet Mondrian

[10] This Mondrian work, meant to evoke a specific kind of music, features red and blue squares on an intersecting grid of yellow lines, some of which are interrupted by light gray shapes.

ANSWER: Broadway Boogie Woogie

[10] Mondrian was a member of this Dutch group, which founded a namesake magazine in 1917. Other members included Theo van Doesburg and Garrit Rietveld, creator of the *Red Blue Chair*.

ANSWER: De Stijl [or Neoplasticism] <GG>

**T16. Compositions by this man commemorate the 400<sup>th</sup> anniversary of the printing press, as well as the 300<sup>th</sup> anniversary of the Augsburg Confession. Those pieces are the *Gutenberg Cantata* and the *Reformation Symphony*. In addition writing to such small pieces as the *Spinner's Song* and multiple (\*) *Venetian Boat Songs*, this composer supposedly included a melody that gave him "no peace" in his *Violin Concerto in E minor*. This composer's travels to "Fingal's Cave" inspired one composition, and he wrote a famous "Wedding March". For 10 points, name this composer of *The Hebrides Overture* and incidental music to "A Midsummer Night's Dream".**

ANSWER: Felix Mendelssohn

**B16. You have solution of hydrochloric acid. For 10 points each,**

[10] If the indicator phenolphthalein were added to the solution, then the solution would be this color.

ANSWER: colorless [accept clear knowledge equivalents such as clear]

[10] After loading a strong base into a burette, you are now ready to perform this technique with the HCl solution. In theory, this procedure would end at the equivalence point, where all of the reactant has been converted to product.

ANSWER: titration

[10] If 25 mL of 0.01 M solution of strong base were titrated with 25 mL of the HCl solution, what would the molar concentration of the HCl solution be? Solutions with a pH of 2 have this concentration of H<sup>+</sup> ions.

ANSWER: 0.01 M [accept clear-knowledge equivalents such as "10 to the -2"]

**T17. On deity of this type, Coyolxauhqui, had her limbs cut off and her head thrown into the sky by Huitzilopochtli so that her mother could see her regularly. Shiva wears this feature in his hair. Another deity of this type was washed out of Izanagi's right eye as the second of the three noble children. This feature is worn on (\*) Thoth's head, even though Khonsu is more associated with this type of deity. Examples of this type of deity include Tsukuyomi, and the lover of Endymion, Selene. For 10 points, name this type of deity which is often depicted as a relative or enemy of solar deities.**

ANSWER: Lunar Deities [Accept logical equivalents like "moon gods", accept specific derivations such as "crescent moon" or "moon disk"]

**B17. Name some short stories by Jorge Luis Borges, for 10 points each.**

[10] In this story, Dr. Albert explains to a German spy that Ts'ui Pen's labyrinth is his novel, which explores alternate chains of events based on diverging decisions at a given point.

ANSWER: "The Garden of Forking Paths" [or "El Jardín de senderos que se bifurcan"]

[10] Daneri shows the narrator the title location in the basement of his house, in this short story. From that location, it is possible to see everything in the universe simultaneously.

ANSWER: "The Aleph" [or "El Aleph"]

[10] The title character of this story suffers a horseback-riding accident, after which he gains extraordinary perception of detail and the ability to remember everything. He dies of "pulmonary congestion".

ANSWER: "Funes the Memorious" [or "Funes el memorioso"] <FK>



T18. **This term is divided by Faraday's constant in the Nernst equation, and it is also in the denominator of the slope of an Arrhenius plot. Specific heat capacity equals 3 times this quantity divided by molar mass, according to the (\*) Dulong-Petit law.** This term is equal to Boltzmann's constant divided by Avogadro's number, and it was used to unify Guy-Lussac's, Charles' and Boyle's laws. For 10 points, give this constant which is equal to 8.31 joules per mole-Kelvin, symbolized "R".

ANSWER: ideal gas constant [accept universal gas constant; prompt "R" before mention; accept just ideal gas after "constant" has been mentioned]

B18. Religious Jews seem to fast often. For 10 points each,

[10] This most famous Jewish fast day occurs on the tenth of Tishrei. On it, Jews ask for final forgiveness for their sins with a *shofar* during the *neilah* service, about 25 hours after the *kol nidre* prayer.

ANSWER: Yom Kippur [prompt on "Day of Atonement"]

[10] Many religious Jews also fast to commemorate Esther's fast before approaching the Persian king three days before this spring holiday of lots.

ANSWER: Purim

[10] Besides Yom Kippur, the only other 25 hour Jewish fast occurs on this sad, summer day that commemorates the destruction of both temples.

ANSWER: Tisha B'Av [accept Ninth of Av, be lenient on pronunciation] <BK>

T19. **During this event, an encampment for the "Regulators" was set up with help from Job Shattuck. Luke Day was a leader of one group who took part in this event. James Bowdoin's policies as governor were a major cause of this event, during which Benjamin Lincoln's army took action at (\*) Petersham.** During this event, William Shepard defended the Springfield Armory. This event also saw rebels fighting as the Supreme Judicial Court of Massachusetts. For 10 points, name this rebellion of farmers who were unable to pay their taxes after the American Revolution.

ANSWER: Shays' Rebellion [accept with synonyms of "revolt"]

B19. For ten points each, answer some questions about the Alps.

[10] This mountain is the highest mountain in the Alps, and is notable for being the site of two fatal crashes of Air India Flights in France

ANSWER: Mont Blanc

[10] Jungfrau is one of the major mountains in this subrange of the Alps, named for the Swiss city which is the capital of its namesake in Swiss canton.

ANSWER: Bernese Alps

[10] Situated in the southern Alps of this Germany is this prominent white castle, created by Ludwig II. It is famous for being the hiding place of looted Nazi art, and for inspiring a signature Disney castle.

ANSWER: Neuschwanstein [NOYSH-von-stine] [be lenient on pronunciation, accept New Swanstone] <SM>

T20. **A shot through a stair railing in this film shows two characters discussing the "cleverness" of the protagonist. In another scene in this film, the camera cuts to a poster of Philippe Petain as a man is shot while attempting to flee the police. This film ends with two characters walking toward a foggy runway as (\*) "La Marseillaise" plays in the background.** The protagonist of this film meets a long-lost lover after hearing "As Time Goes By" in his saloon, and he eventually begins a "beautiful friendship" with Captain Louis Renault. For 10 points, name this Michael Curtiz film where Ingrid Bergman and Humphrey Bogart play lovers in the title Moroccan city.

ANSWER: Casablanca <GG>

B20. An insulated cavity with a tiny hole in its surface can be used to approximate this type of object. For 10 points each,

[10] Name this idealized body that absorbs all incident electromagnetic radiation.

ANSWER: **blackbody**

[10] This law states that the energy of blackbody radiation is proportional to the fourth power of temperature.

ANSWER: **Stefan-Boltzmann law**

[10] This constant is raised to the fifth power in the definition of Stefan's constant. It and four multiply the permittivity of free space in one definition of Coulomb's law.

ANSWER: **pi** [prompt on **3.14**]

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**TB. Ching Shih was a leader of members of this profession, and Julius Caesar reportedly crucified people of this profession called the "Cilicians". One man who partook in this profession, Jean Lafitte, helped Andrew Jackson win the Battle of New Orleans. Both Hayreddin and his younger brother Oruç Reis led the (\*) Barbary type of this profession, and both were called Barbarossa or Redbeard by the Italians. Even though he received letters of marque from Elizabeth I, Francis Drake was considered to partake in this profession by the Spanish. For 10 points, name this profession of sailors who attacked merchant ships and ports and sometimes flew the "Jolly Roger".**

ANSWER: **Piracy** [accept "**Privateering**", "**Corsairing**", as well as any word forms]