



2016 Washington/Hickman Academic Questionfest (WHAQ)

Edited by Jacob O'Rourke (Head Editor); David Dennis; Seth Ebner;  
Chris Chiego, and Jake Sundberg. Special Thanks goes to Eric Mukherjee and Sean  
Phillips.

Written by members of the Washington (Joe Stitz, Sophia Johnson, Carrie Derner, Matt  
Chalem, Jonathan Amlong, Cole Phinney) and Hickman (Alex Harmata, Diana Harmata,  
Wenzer Qin, Sherry Xie, Owen Pasley, Jackson Atkins, Stephen Bunch and Dinis  
Trindade) Teams

Packet 1

**Tossups**

1. **The common name given to this quantity comes from Jean Baptiste Perrin's paper "Brownian Movement and Molecular Reality." This quantity was first calculated by Loschmidt, and the modern value of this quantity can be determined with X-ray crystallography. The product of this quantity and (\*) Boltzmann's constant results in the ideal gas constant. This is the number of atoms in 12 grams of carbon-12. For 10 points, name this constant, the number of atoms in a mole, approximately 6.02 times 10 to the 23rd.**  
ANSWER: **Avogadro's** number [or **6.022 times 10 to the 23rd** until it is read] <David Dennis>

2. **In this present-day country, the Bochnia and Wieliczka ("wheel-LEEKs-ka") Salt Mines were active for over 800 years. Silver mining and deforestation in the 13th century created a small sandy desert near Bledow in this country. This country is divided into voivodeships and shares a lagoon with the Russian exclave of (\*) Kaliningrad. This country's longest river, the Vistula, rises in the Carpathian Mountains and empties into the Baltic Sea near Gdansk after flowing past Krakow. For 10 points, name this Eastern European country whose capital is Warsaw.**

ANSWER: **Poland** [Republic of **Poland**; or Rzeczpospolita **Polska**] <David Dennis>/<ed. Chris Chiego>

3. **In a story by this author, Charlie Wales is not granted custody of his daughter due to the drunken actions of Duncan and Lorraine. The protagonist of a story by this author cuts off her cousin Marjorie's pigtails after being tricked into performing the title action. This author of "Babylon Revisited" and "Bernice Bobs Her Hair" wrote about Amory Blaine in *This Side of Paradise*. In his most famous novel, the neighbor of Nick (\*) Carraway throws lavish parties at his mansion in West Egg in the hopes of meeting Daisy Buchanan. For 10 points, name this American author of *The Great Gatsby*.**

ANSWER: F. Scott **Fitzgerald** [Francis Scott Key **Fitzgerald**] <Joe Stitz>/<ed. Jacob>

4. **Pedro Camejo died while trying to rally a division of this man’s army commanded by Jose Antonio Paez. While in exile in Jamaica, this leader wrote a letter addressed to “an English gentleman” which explained his republican principles. This leader issued the “Decree of War to the Death” after beginning his (\*) Admirable Campaign. With Antonio Jose de Sucre, this man won the Battle of Ayacucho. This president of Gran Columbia freed New Granada, Ecuador and Venezuela from Spanish rule. For 10 points, name this “Liberator” of South America.**

ANSWER: Simón **Bolívar** [Simón José Antonio de la Santísima Trinidad **Bolívar** y Palacios] <Cole Phinney>/<ed. Jacob>

5. **This composer wrote his “Coronation Concerto” with unfinished parts for the left hand. Another of this composer’s piano concertos was used in a film depicting the Danish tightrope walker, Elvira Madigan. This composer only wrote two of his (\*) forty-two symphonies in a minor key, both the “Little” and “Great” G Minor Symphonies. For 10 points, name this German “child prodigy,” known for his *Eine Kleine Nachtmusik*.**

ANSWER: Wolfgang Amadeus **Mozart** <Joe Stitz>/<ed. David Dennis>

6. **In a speech about reputation, a character in this play laments that “I have lost the immortal part of myself, and what remains is bestial.” The mother of this play’s title character gave him a magic cloth that she received from an Egyptian sorceress. The antagonist of this play warns its title character about that “green-eyed monster” of (\*) jealousy. The protagonist of this play smothers his wife after Iago uses a handkerchief to indicate Cassio is having an affair with Desdemona. For 10 points, name this Shakespeare tragedy about a title “Moor of Venice.”**

ANSWER: **Othello** [*The Tragedy of Othello, the Moor of Venice*] <Sherry Xie>/<ed. Jacob>

7. **Fanconi syndrome in this organ may be drug-induced, and this organ may form a Wilms tumor. This organ produces the hormone erythropoietin (“err-ith-mo-POY-tun”), as well as an enzyme that stimulates the release of calcium from bones. The functional unit of this organ, in which solutes are forced by the (\*) glomerulus into Bowman’s capsule, is called a nephron. In this organ, the ascending and descending portions of the Loop of Henle concentrate salt in the interstitium. For 10 points, name this organ that filters blood and produces urine.**

ANSWER: **Kidney** <Sherry Xie>/<ed. David Dennis>

8. **As part of their way of measuring time, these people celebrated the beginning of spring by performing the Thanks to the Maple festival. These people fought the Huron and other Algonquian (“Al-gon-ki-an”) tribes in the Beaver Wars. After the Battle of Oriskany, a civil war among members of this group began after the (\*) Oneida aided the Americans. This group allied with the British during the Revolutionary War while led by Joseph Brant. For 10 points, name this confederacy of Native American tribes that included the Onondaga, the Seneca, and the Mohawk.**

ANSWER: **Iroquois** Confederacy [or **Iroquois** League; or the **Five Nations**; or the **Six Nations**; or the Six **Iroquois** Nations; anti-prompt by asking people to be less specific if they answer with Oneida, Mohawk, Onondaga, Cayuga, Seneca or Tuscarora before Oneida is read] <Owen Pasley>/<ed. Jacob>

9. A character in this movie exclaims that he has broken out of 22 prisons upon being imprisoned in the Klyn. This movie starts with a character dancing to “Come and Get Your Love” while stealing an orb. In this movie, the Yondu-led Ravagers assist the (\*) Nova Corps in preventing the destruction of Xandar. A character in this movie who does not understand metaphors calls for Ronan the Accuser to come to Knowhere for a fight to the death; that character is Drax the Destroyer. For 10 points, name this Marvel movie whose title group includes Gamorra, Rocket Raccoon and Star-Lord.

ANSWER: Guardians of the Galaxy <Cole Phinney>/<ed. Sean Phillips>/<ed. Jacob>

10. Before this figure was born, Queen Mayadevi dreamed of a white elephant entering her womb. This figure is often considered to be the ninth avatar of Vishnu, and he resisted the temptations of the demon Mara. Mahakashyapa (“Ma-hah-kah-shee-ap-ah”) was the only disciple of this figure to understand a wordless speech made by this man called the (\*) Flower Sermon. This man preached about the “Middle Way” after meditating under a Bodhi (“boh-dee”) tree. For 10 points, name this founder of a dharmic religion that teaches the Four Noble Truths and the Eightfold Path.

ANSWER: Buddha [or Siddhartha Gautama; or Shakyamuni Buddha] <Sophia Johnson>/<ed. Jacob>

11. John von Neumann names a version of this quantity that is equal to the negative of the trace of the density matrix times its natural logarithm, which coincides with Claude Shannon’s definition of this quantity in information theory. Rudolf Clausius originated this concept, and his outdated eponymous unit for it is equal to 1 calorie per degree Celsius. This quantity equals Boltzmann's (\*) constant times the natural logarithm of the number of available microstates. According to the Second Law of Thermodynamics, this state function for the universe will always increase over time. For 10 points, name this measure of disorder.

ANSWER: Entropy [do NOT accept or prompt on “enthalpy”] <Wenzer Qin>/<ed. Seth Ebner>

12. An instigator of this war was made the heir to the crown, along with his sons, through the Act of Accord. This war included battles at St. Albans and Tewkesbury. During this war, a former king was restored to the throne by the Earl of Warwick, the “Kingmaker.” Henry (\*) VII’s Tudor dynasty ascended to the English throne after Richard III died at this war’s battle of Bosworth Field. For 10 points, name this series of wars fought between the Houses of Lancaster and York, which were named for their red and white symbols.

ANSWER: War of the Roses [or Wars of the Roses] <Cole Phinney>/<ed. Jacob>

13. One musical piece by this man, “Jeep’s Blues,” is a featured piece in the film *American Hustle*. This musician is also known for altering typical Dixieland voice positions in one song by giving both the trumpet and trombone the higher notes, allowing the clarinet to feature prominently. That song by this musician is “Mood Indigo.” This man often collaborated with Billy (\*) Strayhorn, including the song “Satin Doll.” For 10 points, name this American bandleader whose band often played in the Cotton Club and composed the hit “Take the A Train.”

ANSWER: Duke Ellington [Edward Kennedy Ellington] <Jack Atkins>/<ed. David Dennis>

14. This character appears in the story “Slight Rebellion off Madison,” where he asks Sally Hayes to run away to the woods with him. A prized possession of this character is his brother Allie’s baseball mitt, which has poems written all over it. He frequently thinks of his roommate(\*) Stradlater with his love interest, Jane Gallagher. This character wonders where the ducks in Central Park go during the winter, and he spends time with his sister Phoebe after skipping Pencey Prep. For 10 points, name this “phony” hating protagonist of J.D. Salinger’s *The Catcher in the Rye*.

ANSWER: Holden Caulfield [Holden Morrisey Caulfield] <Joe Stitz>/<ed. Jacob>

15. This man healed the king of Mysia (“mish-ee-uh”) with his spear after that king, Telephus, kidnapped and threatened Orestes (“oh-res-teez”). This man killed Thersites (“ther-sahy-teez”) for insulting him for falling in love with the body of the Amazon queen Penthesilea (“pen-thuh-sel-ay-uh”). This hero’s armor is fought over by Ajax the Greater and Odysseus. This hero’s armor had earlier been worn by his best friend, (\*) Patroclus (“puh-tro-kluh”). Although he was dipped in the River Styx by his mother Thetis, this hero was killed by an arrow to his heel, which was his only vulnerable point. For 10 points, name this Greek hero during the Trojan War who killed Hector.

ANSWER: Achilles <Joe Stitz>/<ed. Jacob>

16. This man signed the Eternal Peace with Khosrau I of the Sassanid Empire. This ruler’s finances were managed by Peter Barsymes and John the Cappadocian (“kap-uh-doh-shuhn”). This ruler was said to be able to make his head disappear in Procopius’ (“proh-koh-pee-uhs”) *Secret History*. The scholar Tribonian compiled a (\*) law code named for this ruler. This ruler’s general Belisarius (“bel-uh-sair-ee-uhs”) crushed the Blue and Green factions of chariot racing fans during the Nika riots. For 10 points, name this husband of Theodora and Byzantine emperor who built the Hagia Sophia.

ANSWER: Justinian I [Justinian the Great] <Cole Phinney>/<ed. Jacob>

17. This work recommends eliminating the bloodline of a royal family to conquer a kingdom that revolves around a king, an example of which is the Persian Empire of Darius III. Mercenaries and auxiliary soldiers are “useless and dangerous,” according to this text. This book personifies Fortune as a woman and warns against (\*) flatterers. This book idolizes Cesare Borgia and advises rulers to be like a fox and a lion. This book states that it is better for the title ruler to be feared than loved. For 10 points, name this political treatise written by Niccolo Machiavelli.

ANSWER: *The Prince* [or *Il Principe*] <Sophia Johnson>/<ed. Jacob>

18. This artist’s earliest known work is a landscape piece titled *Study of a Tuscan Landscape*, or *Arno Valley*. The Polish pianist Slawomir Zubrzycki (“zoo-BRITCH-kee”) built a piano-cello hybrid, which was based on a sketch by this man. A work by this artist was named for the first century B.C. author of *De Architectura* and depicts a man with (\*) four arms touching the edges of a square. The most famous painting by this artist of *The Vitruvian Man* and user of the sfumato technique depicts an enigmatically smiling woman. For 10 points, name this Italian Renaissance artist of the *Mona Lisa*.

ANSWER: Leonardo Da Vinci [Leonardo Da Vinci; or Leonardo di ser Piero da Vinci] <Wenzer Qin>/<ed. Jacob>

19. **This thinker's Stationary Points Theorem states that if a function has a local extremum at some point and is differentiable there, then the function's derivative at that point must be zero. This man proved that an integer raised to the power of a prime is congruent to itself, modulo the prime, in his (\*) Little Theorem.** The combination of Ribet's theorem and the Taniyama-Shimura conjecture allowed the discovery of the proof of his most famous theorem by Andrew Wiles. For 10 points, name this 17th Century French mathematician who claimed that a proof of his Last Theorem was too large to fit in the margin of his book.

ANSWER: Pierre de Fermat <David Dennis>/<ed. Seth Ebner>

20. **In this work, the narrator encounters a tree spirit that killed itself as a human because of the jealousy of Frederick II's court. The narrator of this work learns the story of Paolo and Francesca and is assisted by Geryon. The narrator of this poem is guided through the nine (\*) circles of hell by Virgil.** The narrator of this poem passes through an entrance, where he reads an inscription that proclaims "abandon all hope, ye who enter here." For 10 points, name this epic poem by Dante Alighieri that is divided into sections called *Inferno*, *Purgatorio*, and *Paradiso*.

ANSWER: *The Divine Comedy* [or *La Divina Commedia*; or the *Inferno* before it is read] <Wenzer Qin>/<ed. Jacob>

Tiebreaker

**This man wrote a training manual based off of his experiences in World War I, called *Infantry Tactics*. This man defeated the United States II Corps at the Battle of Kasserine Pass. This man was allowed to commit suicide, rather than face trial, after being implicated in Claus von Stauffenberg's ("klaus von stow-fehn-behrg's") July (\*) 20th plot.** This general's forces lost to Bernard Montgomery in Egypt at the Battle of El Alamein ("el al-ah-meyn"). For 10 points, name this German general who led the Afrika Corps during World War II, who was nicknamed the "Desert Fox."

ANSWER: Erwin Rommel ("er-veen rom-uhl") [Erwin Johannes Eugen Rommel; prompt on the Desert Fox until it is read] <Cole Phinney>/<ed. Jacob>

## **Bonuses**

1. This city led an alliance that featured itself, Texcoco and Tlacopan, and an invading army fled this city during the Tragic Night. For 10 points each:

[10] Name this capital city of an empire. This city on Lake Texcoco was legendarily founded at the place where an eagle landed on a cactus.

ANSWER: **Tenochtitlan** [or Mexico-**Tenochtitlan**; do NOT accept or prompt on “Mexico City”]

[10] The conquistador Hernán Cortés invaded and captured Tenochtitlan, which was the capital of this mesoamerican empire. This empire was ruled by several men named Montezuma.

ANSWER: **Aztec** Empire [or **Aztec** peoples; or **Culhua-Mexica**; or **Mexica**]

[10] This native woman served as Cortés’ interpreter during his conquests. She was used to secure Spanish alliances with the Tlaxcala people.

ANSWER: La **Malinche** [**Malintzin**; or **Malinalli**; or Doña **Marina**] <Cole Phinney>/<ed. Jacob>

2. Imperfections in these devices can lead to aberrations such as coma and chromatic aberration. For 10 points each:

[10] Name these devices that focus light through refraction and are often contrasted with mirrors.

ANSWER: **lenses**

[10] If the lens formula gives a negative image distance, then the image is of this type. These images cannot be projected onto a screen.

ANSWER: **virtual** image

[10] The thin lens approximation simplifies the lensmaker’s equation, which states the inverse of what quantity is equal to the difference of the reciprocals of the radii of curvature, all times the index of refraction minus 1? Optical power is equal to the inverse of this quantity.

ANSWER: **focal length** <Seth Ebner>/<ed. Seth Ebner>

3. The rocks in the background of this painting represent the Cap de Creus in Catalonia. For 10 points each:

[10] Name this painting that has a timepiece hung over a tree and one with ants crawling over it.

ANSWER: *The **Persistence of Memory*** [or *La **persistencia de la memoria***]

[10] This mustachioed Spanish surrealist painted *The Persistence of Memory*. This artist also painted *Soft Construction With Boiled Beans* and *Swans Reflecting Elephants*.

ANSWER: Salvador **Dalí** [Salvador Felipe Jacinto **Dalí** y Domenech]

[10] This artwork appears 28 times in Dalí’s painting *The Hallucinogenic Toreador*. Dalí also created a version of this sculpture “with drawers.”

ANSWER: **Venus de Milo** <Cole Phinney>/<ed. Seth Ebner>

4. Following this vote, David Cameron stepped down as Prime Minister. For 10 points each:  
[10] Name this referendum held in June 2016 that allowed the formerly Cameron-led country to leave a continental government body. A description is acceptable.

ANSWER: **Brexit** [or anything that states that the **UK** is **leaving** the **EU**]

[10] This man led the United Kingdom Independence Party from 2010 to July 2016. He is a member of the European Parliament representing South East England.

ANSWER: Nigel **Farage**

[10] This woman replaced David Cameron as Prime Minister of the United Kingdom and leader of the Conservative Party. Prior to being elected as leader of the Conservative Party, she was the Home Secretary.

ANSWER: Theresa **May** <Cole Phinney>/<ed. David Dennis>

5. The speaker of this poem describes a game of dice played between Death and the “nightmare” Life-In-Death for his soul. For 10 points each:

[10] Name this poem, whose title character describes having “water, water everywhere, nor any drop to drink” after he shoots an albatross.

ANSWER: “The **Rime of the Ancient Mariner**”

[10] This English poet of “The Rime of the Ancient Mariner” and “Kubla Khan” collaborated with William Wordsworth on the poetry collection *Lyrical Ballads*.

ANSWER: Samuel Taylor **Coleridge**

[10] The Ancient Mariner tells his story to a man going to one of these events.

ANSWER: **Wedding** [or **Marriage**; or “the **Wedding-Guest**”] <Wenzer Qin>/<ed. Jacob>

6. In this country, the Partisans and the Chetniks resisted the fascist Ustase (“**Oo-shtah-shey**”) party. For 10 points each:

[10] Name this Balkan nation, which split up into such modern-day countries as Serbia, Slovenia, and Croatia following a war in the 1990s.

ANSWER: **Yugoslavia** [Federal Republic of **Yugoslavia**’ or **Jugoslavija**]

[10] This leader of the Non-Aligned Movement led the Partisans and held together Yugoslavia until his death in 1980.

ANSWER: Josip Broz **Tito** [or Josip **Broz**]

[10] This president of Serbia was overthrown in the Bulldozer Revolution and was the first head of state to be tried for war crimes after withdrawing forces during the Yugoslav Wars.

ANSWER: Slobodan **Milosevic** (“**Mee-loh-se-vich**”) <Alex Harmata>/<ed. Jacob>

7. This man aided the Argonauts on their voyage by drowning out the Sirens’ song with his music. For 10 points each:

[10] Identify this demigod, whose singing head may have floated down the Hebrus River after he was torn to pieces. This musician was skilled at playing the lyre.

ANSWER: **Orpheus**

[10] Orpheus failed to rescue this woman from the underworld after he looked back and saw her before reaching the surface. This wife of Orpheus died from a snakebite.

ANSWER: **Eurydice** (“**yoo-rid-uh-see**”)

[10] This brother of Orpheus taught music to both Orpheus and Heracles. This man was killed by Heracles after he pointed out that Heracles was making a lot of errors.

ANSWER: **Linus** <Wenzer Qin>/<ed. Jacob>

8. A duke and duchess offer this character the governorship of a fake island called Barataria. For 10 points each:

[10] Name this squire, who encounters his former neighbor Ricote when Ricote tries to recover his treasure. He rides the gray donkey Dapple.

ANSWER: Sancho **Panza** [or **Sancho** Panza]

[10] Sancho Panza is the companion of this knight, the title character of a Cervantes novel. This character tilts at windmills that he mistakes for giants.

ANSWER: Don **Quixote** de la Mancha [or Alonso **Quijano**; or Don **Quijote**; or Alonso **Quixano**; or *The Ingenious Gentleman Don **Quixote** of La Mancha*; or *El ingenioso hidalgo Don **Quijote** de La Mancha*]

[10] Don Quixote steals a barber's basin because he thinks it is this mythical object that belonged to a Moorish king.

ANSWER: **Helmet** of Mambrino [or word forms, such as Mambrino's **helmet**] <Carrie Derner>/<ed. Jacob>

9. The Algonquian Ojibwe "bridge" type of this concept was used to connect trade along the Great Lakes. For 10 points each:

[10] Name these complex systems of human communication, which include English.

ANSWER: **languages**

[10] The Martha's Vineyard community used an exclusive one of these types of languages until the mid-20th century. Examples of these languages include ASL.

ANSWER: **sign** language [or American **Sign** Language]

[10] This principle states that the structure of a language has an effect on the speaker's thoughts and perceptions of the world.

ANSWER: **Sapir-Whorf hypothesis** [or **Whorf**ism; or **linguistic relativity**] <Sherry Xie>/<ed. Jacob>

10. Paul Hermann Muller was given the 1948 Nobel Prize in Physiology or Medicine for his discovery of this chemical. For 10 points each:

[10] Identify this organochlorine, which was widely used as an insecticide after World War II.

ANSWER: **DDT** [or **dichlorodiphenyltrichloroethane**]

[10] This book brought the dangers of DDT to public attention by highlighting the impact pesticide use had on the environment, especially on birds.

ANSWER: ***Silent Spring***

[10] This marine biologist inspired the conservationist movement with *Silent Spring*.

ANSWER: Rachel **Carson** [Rachel Louise **Carson**] <Wenzer Qin>/<ed. Jacob>



11. In this collection, the protagonist is mistaken for Nathoo and is adopted by Messua and her husband. For 10 points each:

[10] Name this collection, where the mongoose Rikki-Tiki-Tavi kills the snakes Nag and Nagaina. In this collection, the man cub Mowgli chases off the tiger Shere Khan.

ANSWER: The **Jungle Book**

[10] This poet of “If” and “The White Man’s Burden” was inspired by his native India to write *The Jungle Book*.

ANSWER: Rudyard **Kipling** [Joseph Rudyard **Kipling**]

[10] In this Kipling novella, the wife of Daniel Dravot bites him in order to reveal, through a trickle of blood from the bite, that he is not a god.

ANSWER: The **Man Who Would Be King** <Joe Stitz>/<ed. Jacob>

12. Its studio building at 2648 West Grand Boulevard has a large sign declaring it “Hitsville, U.S.A.” For 10 points each:

[10] Name this record label founded by Berry Gordy, which employed Marvin Gaye and Smokey Robinson in Detroit, Michigan.

ANSWER: **Motown** Records

[10] Before Beyonce played her in *Dreamgirls*, this chanteuse led the Supremes with hits such as “Can’t Hurry Love” and “Come See About Me.”

ANSWER: Diana **Ross**

[10] Known as a wunderkid since he was 12, this blind pianist is better known for songs like “Superstition” and the album *Songs in the Key of Life*.

ANSWER: **Stevie Wonder** [or **Stevland** Hardaway **Morris**] <David Dennis>/<ed. Sean Phillips>/<ed. Jacob>

13. Answer these questions about sleep. For 10 points each:

[10] Sleep-deprived people experience a “rebound” of this type of sleep, in which they spend more time in this sleep stage during which dreaming occurs.

ANSWER: **Rapid eye movement** sleep [or **REM** sleep; prompt on a partial answer]

[10] An abnormal sleep schedule can indicate a disorder of these roughly 24-hour cycles of biological processes. Jet lag occurs when these cycles are disturbed.

ANSWER: **Circadian rhythms**

[10] This hormone helps regulate the sleep cycle. Exposure to light reduces production of this hormone in the pineal gland.

ANSWER: **Melatonin** <Wenzer Qin/ed. David Dennis>

14. Some people in this island chain claim to have “seceded where others failed.” For 10 points each:

[10] Name this archipelago, part of which is home to the unrecognized Conch Republic. These islands on the Gulf of Mexico took the brunt of the 1935 Labor Day hurricane.

ANSWER: **Florida Keys** [prompt on The Keys]

[10] Ernest Hemingway owned a house on this Key, which also contains Harry Truman’s “Little White House.” This Key lies only 90 miles from Cuba.

ANSWER: Key **West**

[10] The US Highway of this number runs from Fort Kent, Maine in the North to Key West in the South. There is no Interstate with this number.

ANSWER: **1** [or **One**] <Alex Harmata>/<ed. Chris Chiego>

15. Answer the following about the Third Servile War. For 10 points each:

[10] This Thracian gladiator led an army of slaves against the Roman Republic during the Third Servile War. He defeated Gaius Claudius Glaber at Mount Vesuvius.

ANSWER: **Spartacus**

[10] This member of the First Triumvirate defeated Spartacus at the Battle of the Siler River. He died while fighting the Parthians at the Battle of Carrhae.

ANSWER: Marcus Licinius **Crassus**

[10] After the Battle of the Siler River, the 6,000 captured followers of Spartacus were crucified along this 120-mile long road. This important road connected Rome to Brindisi.

ANSWER: **Appian Way** [or **Via Appia**] <Dinis Trindade>/<ed. Jacob>

16. These materials are used in rectifiers and transistors. For 10 points each:

[10] Name these materials that have conductivities between conductors and insulators. They are called p-type or n-type when they have been doped.

ANSWER: **semiconductors**

[10] When a semiconductor is doped to the point that it acts more like a conductor, it is referred to by this term. In chemistry, this term also refers to two orbitals with different quantum states but the same measured energy value.

ANSWER: **degenerate**

[10] This element with atomic number 14 is commonly doped with phosphorus. A famous valley in California is named after it.

ANSWER: **Silicon** [or **Si**] <Wenzer Qin>/<ed. David Dennis>

17. NOTE TO MODERATOR: Do not reveal the alternate answer to the first part of this bonus, as it will reveal the answer to the second part. Thanks!

This poem's speaker describes how "The Carriage held but just Ourselves and Immortality." For 10 points each:

[10] Name this poem, in which the title entity "kindly stopped for me." It ends by stating that "I first surmised the Horses' Head were toward eternity."

ANSWER: "**Because I could not stop for Death**" [accept, but do NOT reveal, Dickinson's Poem **479**]

[10] "Because I could not stop for Death" was written by this "Belle of Amherst," who also wrote "A narrow fellow in the grass" and "I Heard a fly buzz when I died."

ANSWER: Emily **Dickinson**

[10] This other Dickinson poem states, "How dreary to be Somebody!" and also notes "How public like a frog-to tell one's name to an admiring Bog!"

ANSWER: "**I'm Nobody! Who are you?**" [Or Dickinson's Poem **260**] <Joe Stitz>/<ed. Jacob>

18. In this work, the title character escapes from trolls and watches "Anitra's Dance." For 10 points each:

[10] Name this piece, which contains songs such as "Morning Mood" and "In the Hall of the Mountain King."

ANSWER: **Peer Gynt** [or **Peer Gynt** suite]

[10] This Norwegian composer wrote the incidental music for Henrik Ibsen's play *Peer Gynt*.

ANSWER: Edvard **Grieg**

[10] This character is Peer Gynt's mother, who dies in Act III of the play. Grieg composed a namesake song about her "Death."

ANSWER: **Ase** <Carrie Derner>/<ed. David Dennis>

19. During this war, troops led by George Monro ("**Monroe**") were massacred after surrendering at Fort William Henry. For 10 points each:

[10] Name this war, which was the American phase of the Seven Years' War. The British took control of Canada as a result of this war.

ANSWER: **French and Indian** War

[10] This man accompanied the disastrous Braddock expedition and surrendered Fort Necessity. He was the commander of the Continental Army during the American Revolution.

ANSWER: George **Washington**

[10] A pivotal battle during the French and Indian war occurred at this location on a plateau just outside of Quebec City. James Wolfe and the Marquis de Montcalm both died at this battle.

ANSWER: The Battle of the **Plains of Abraham** [Bataille des **Plaines d'Abraham**; do NOT accept the "Battle of Quebec" or the "Premiere bataille de Quebec"] <Cole Phinney>/<ed. Jacob>

20. The Hebrew Bible's wisdom literature tradition includes the books of Psalms, Proverbs, Ecclesiastes, Song of Songs and this book. For 10 points each:

[10] Name this Biblical book, whose title pious man nearly loses his faith in agony as a result of a bet between God and Satan.

ANSWER: Book of **Job**

[10] In the book, God asks Job if he can "pull in" this creature "with a fishhook." God is also credited with crushing the heads of this sea monster in Psalm 74.

ANSWER: **Leviathan** [or **Leviathan** of the Seven Heads; or **Livyatan**; or **Lotan**; or **Rahab**]

[10] This character provides a multi-chapter monologue criticizing Job for "empty talk" and praising God for his power and justice. He is the only one of Job's friends to not be rebuked by God.

ANSWER: **Elihu** <Sophia Johnson>/<ed. Jacob>

Extra

Archimedes determined this value within two decimal places by using inscribed and circumscribed hexagons. For 10 points each:

[10] Name this mathematical constant, the ratio of a circle's circumference to its diameter.

ANSWER: **Pi**

[10] This other method of calculating  $\pi$  stems from a probability question posed by a French naturalist. In it, an item length  $L$  is dropped onto an infinite plane with lines  $D$  distance apart, where  $D$  is greater than  $L$ .

ANSWER: **Buffon's Needle**

[10] The period of one of these items will take approximately  $\pi$  seconds, if its length is 1/4th of the local gravity, or about 2.45 meters on Earth.

ANSWER: **Pendulum** <David Dennis>