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Packet 13

## Tossups

1. In this story, an event is conducted by the man who conducts the teen club, the square dances and the Halloween program. An event in this story is conducted by Mr. Summers, and Clyde Dunbar misses it because he has a broken leg. "Corn [will] be heavy soon" if this event is held in June, according to Old Man Warner. This short story is set on June 27th, which is the day that $\left(^{*}\right)$ Tessie Hutchinson screams "it isn't fair" before she is killed. For 10 points, name this short story where a woman is stoned to death by the citizens of her village, which was written by Shirley Jackson.
ANSWER: "The Lottery" < Jacob O'Rourke>
2. A Huffington Post article by Omari Akil about playing this game claims that it is a death sentence for black men if they "play it as it is intended and with enthusiasm." Wyoming teen Shayla Wiggins discovered a corpse in the Big Wind River while playing this game. A stationary (*) police car was hit by a man who was playing this game while driving, leading that driver of a Toyota Rav4 to profess "That's what I get for playing this dumb game." For 10 points, name this mobile game that involves traversing the real world to visit "gyms" to capture creatures such as Pikachu.
ANSWER: Pokemon GO <Alex Harmata>/<ed. Jacob>
3. Adherents of an "ordinary" philosophy of these constructs eschewed philosophical "theories" in favor of close attention to everyday details. If a "private" one of these constructs is understandable by only one person, then it is incoherent according to an argument from Ludwig $\left(^{*}\right.$ ) Wittgenstein's ("loot-vikh vit-guhn-shtahyn's") "beetle-in-a-box" thought experiment. The study of this concept often includes elements such as grammar and semantics, or meaning. For 10 points, name this method of communication, which includes families such as Indo-European.
ANSWER: Language [or languages; or a "private" language; or Ordinary Language Philosophy] <Jacob O'Rourke>
4. Depending on the speed with which elements are moved according to one of these processes, they may be called rabbits or turtles. A bidirectional form of one of these algorithms solves the turtle problem and is called the cocktail shaker. Algorithms for this task that use comparisons have a best-case runtime of big-omega of $\mathbf{n} \log \mathbf{n}$, although this is avoided by the $\left({ }^{*}\right)$ counting kind of this type of algorithm. The bubble variety of algorithm for this task has a quadratic runtime for its average and worst cases, and is less efficient than the selection and insertion kinds. For 10 points, name this kind of algorithm that places elements in order.
ANSWER: sorting algorithms <Wenzer Qin>/<ed. Seth Ebner>
5. Along with oral history, the Island of Yap in Micronesia uses Rai Stones as this type of item. During China's Zhou dynasty, long bronze knives were used as these things. In Finland, it's still possible to use a squirrel pelt as this type of item. Edible examples of these items include Mongolian tea bricks, and, in Rome, (*) salt. Mexico debased this type of item in the "December Mistake." For 10 points, name this medium of exchange, which include the Euro and the Dollar.
ANSWER: Currency [or Coinage; or coins; or Money] <David Dennis>/<ed. Jacob>
6. In one piece by this composer, four different brass bands are to be positioned in each cardinal direction and play offstage. In addition to that section labeled "Offertorium," that same piece by this composer features a "Lacrimosa" in $9 / 8$ ("nine-eight") time. This man featured a viola in his second symphony to represent the title man "in (*) Italy", and in his most famous piece he used a clarinet motif called the "idee fixe" ("EE-day fix") to represent Harriet Smithson. For 10 points, name this composer of Symphonie Fantastique.
ANSWER: Hector Berlioz [Louis-Hector Berlioz] <Joe Stitz>/<ed. David Dennis>
7. A character in this collection is branded on his buttocks with a hot iron poker after he farts in the face of the clerk Absolon. In that story from this collection, the student Nicholas seduces Alisoun, the wife of the carpenter John. This collection includes a story where Theseus imprisons Palamon and Arcite, who then fight over Emily. The stories in this collection are told by a ${ }^{*}$ ) group of pilgrims travelling to visit the shrine of Thomas Becket. For 10 points, name this collection by Geoffrey Chaucer that includes stories told by the Knight and the Wife of Bath.
ANSWER: The Canterbury Tales [Tales of Canterbury] <Jacob O'Rourke>
8. The ship Sea Venture sank attempting to deliver supplies to this city as part of the "Third Supply mission." A massacre occurred east of this city at Martin's Hundred, despite Richard Pace's advance warning. This city was burned down by an opponent of the Doeg ("dough-egg") people during (*) Bacon's Rebellion. Lord De La Warr arrived at this city at the end of a harsh winter known as the "starving time." This Virginia city fought the Powhatans, and its tobacco cash crop was promoted by John Rolfe. For 10 points, name this first permanent English settlement in America.
ANSWER: Jamestown, Virginia <Cole Phinney>/<ed. Jacob>
9. This nation celebrates February 21st as Language Martyr's Day, which includes celebrations at the Shaheed Minar monument. The PCJSS fought a low-level insurgency in the "hill tracts" outside its largest seaport of Chittagong. Cox's Bazaar in this country currently hosts Rohingya refugees from neighboring Myanmar. This country's capital city is known for its elaborately decorated $\left({ }^{*}\right)$ rickshaws. The world's largest delta is found in this country where the Brahmaputra and Ganges Rivers meet before flowing into the Bay of Bengal. For 10 points, name this oft-flooded South Asian nation whose capital is Dhaka.
ANSWER: Bangladesh [People's Republic of Bangladesh; or Gana Prajatantri Bangladesh] <Alex Harmata>/<ed. Chris Chiego>
10. Maxwell's equations predict electromagnetic waves can take on this form in special circumstances such as in plasmas, although they don't generally exist in this form. Waves of this form can be written as the amplitude of displacement times the cosine of quantity $k$ times $x$ minus omega times $t$ plus phi. Unlike their counterparts, these waves travel well through fluids and their oscillations are parallel to the $\left(^{*}\right.$ ) direction of propagation. In seismology, waves of this type travel nearly twice as fast as shear waves and are known as Pwaves. For 10 points, name these waves contrasted with transverse waves, of which a prominent example is sound waves.
ANSWER: $\underline{\text { longitudinal }}$ waves [or $\underline{\mathbf{L}}$-waves, or $\underline{\mathbf{P}}$-waves before it is read] <Wenzer Qin>/<ed. Jake Sundberg>
11. These animals are divided into two families: Strigidae and Tytonidae. An unusually flexible toe that normally points to the front but can be rotated opposite to better grip prey distinguishes these animals from other raptors. Contractile blood vessels under the jaw that form a blood reservoir allow these animals to turn their (*) head 270 degrees in either direction, and these animals also have specially developed serrated feathers that enable silent flight. For 10 points, name these nocturnal birds of prey, which include the snowy and great horned varieties.
ANSWER: Owls <Wenzer Qin>/<ed. David Denis>
12. One musical number in this production begins with a rumor of an arrest and ends with an old lady saying "that's what comes from men and women dancing." In another scene from this musical, the main character pretends to have a nightmare about the butcher's deceased wife, to justify reneging on his promise to wed his daughter to Lazar Wolf. Later, after that same daughter's marriage to (*) Motel ("MAH-tle"), the constable carries out a "little demonstration" on the village. For 10 points, name this musical in which Tevye sings "If I were a Rich Man."
ANSWER: Fiddler on the Roof <Wenzer Qin>/<ed. David Dennis>
13. The speaker of a poem by this man commands to "lose thyself" in the place "where rolls the Oregon and hears no sound." A poem by this author wonders whether "while glow the heavens with the last steps of day," "dost thou pursue thy solitary way?" A poem by this author instructs the reader to "approach thy grave and lie down to pleasant dreams." This author of "To a (*) Waterfowl" began a poem by noting "him who in the love of Nature holds communion with her various forms." For 10 points, name this American poet who wrote a "meditation on death" called "Thanatopsis."
ANSWER: William Cullen Bryant $<$ Jacob O’Rourke>
14. Sri Shankaracharya ("Shan-kar-ah-char-iyah"), a member of the Vedanta ("vai-daantuh") school, wrote a notable commentary about this text. This text claims that the three doorways to Hell are lust, anger and greed. One figure in this work pushes a warrior to perform his Vedic duty without attachment. That figure in this work reveals his universal form before declaring "I have become $\left(^{*}\right)$ death, destroyer of worlds." This text is a dialogue between Arjuna and his charioteer, Krishna. For 10 points, name this Hindu scripture that is a subsection of the Mahabharata ("Muh-haab-haa-ruh-tah").
ANSWER: Bhagavad Gita ("buhg-uh-vuhd gee-tah") [or the Song of God; or the Song of the Lord; Prompt on Gita; prompt on the Mahabharata before it is read] <Sophia Johnson>/<ed. Jacob>
15. At the end of this event, a former member of the KSC was demoted to the forest ministry. To protest the end of this event, the student Jan Palach set himself on fire. During this event, an economic emphasis on consumer goods and increased freedom of speech were part of a leader's "Action Programme." The installation of Gustáv Husák as first secretary after a Leonid (*) Brezhnev-ordered invasion ended this event, which sought to install "socialism with a human face." For 10 points, name this 1968 Alexander Dubcek ("Dub-chek")led liberalization of Czechoslovakia.
ANSWER: Prague Spring <Cole Phinney>/<ed. Jacob>
16. During this event, a rust-red rooster crows to resurrect the dead of the underworld. The main fighting during this event takes place at a field called Vigrith. The giant Surt sets fire to the world with his sword during this event, which the humans Lif and Lifthrasir are the only ones to survive. One side arrives at this event on the boat (*) Naglfar ("nag-el-far"), which is made from the nails of the dead. Loki leads the forces of Hel during this event, where Fenrir will devour Odin. For 10 points, name this apocalyptic event in Norse mythology. ANSWER: Ragnarok Ragnarokkr; or Gotterdammerung; or the Fate of the Gods; or the Twilight of the Gods] <Dinis Trindade>/<ed. Jacob>
17. This empire's imperial guard were divided into day and night groups and were called Kheshig. Archers from this empire introduced a thumb ring to help with the release of their composite bows. This empire's capital of Karakorum was established by its second ruler, $(*)$ Ogedei ("oh-guh-dye"). A different ruler of this empire established the Yuan Dynasty of China and failed to invade Japan due to the appearance of kamikaze, or "divine wind." For 10 points, name this Asian steppe empire that was once ruled by khans such as Kublai and Genghis. ANSWER: Mongols [or the Mongolian Empire; or the Mongol Empire; or Mongolians] <Cole Phinney>/<ed. Jacob>
18. Calculation of this value can be assisted by utilizing the Divided Saddle theory. For first order reactions, this quantity multiplied by the half life equals the natural $\log$ of 2 . This value is related to activation energy, temperature, $R$, and a "pre-exponential factor" by the ${ }^{(*)}$ Arrhenius equation. The forward value of this quantity divided by the reverse value of this quantity for a one-step reaction is equal to the equilibrium constant. For 10 points, name this constant, symbolized " $k$ ", which reflects the speed of a reaction.
ANSWER: rate constant [or $\underline{\mathbf{k}}$ until it is mentioned] <Alex Harmata>/<ed. David Dennis>
19. A painting by this man was originally designed for the ceiling of the Library of the Palais Bourbon. The foreground of that painting by this artist shows a horse being milked, which the painting's title poet finds unusual. This artist of Ovid Among the Scythians included a large bed decorated with golden elephants in a painting where the title king's concubines are murdered. This artist of The Death of $\left(^{*}\right)$ Sardanapalus is most famous for a painting in which a boy holding two pistols stands next to a bare-breasted woman waving the tricolor. For 10 points, name this French artist of Liberty Leading the People.
ANSWER: Eugene Delacroix [Ferdinand Eugene Victor Delacroix] <Carrie Derner>/<ed. Jacob>
20. A character in this novel is described as having a voice and heart of gold while giving a speech to a colony of the blind at Ezenzeleni. ("en-zen-zuh-LAY-nee") In this novel, the landowner James reads his son's paper on "The Truth About Native Crime." The protagonist of this novel receives a letter from Theophilus Msimangu ("thee-OFF-uh-luss miss-ee-MAHN-goo") telling him that his sister (*) Gertrude is sick. At the end of this novel, Absalom is executed for the murder of Arthur Jarvis. For 10 points, name this Alan Paton novel about Stephen Kumalo's journey to Johannesburg. ANSWER: Cry, the Beloved Country <Wenzer Qin>/<ed. Jacob>

## Tiebreaker

The very large but endangered huchen ("HUCK-en") salmon, which are endemic to this river, benefitted from a commercial fry-producing effort to reintroduce them into the wild. The former Turkish exclave of Ada Kaleh was lost to this river following a dam building project in 1972. That same project near this river forced the raising of a nearby memorial plaque which celebrates the building of Trajan's ${ }^{(*)}$ Bridge, which spans this river. This river originates in the Black Forest and it empties into the Black Sea. For 10 points, name this river, which flows through cities such as Bratislava, Belgrade and Vienna.
ANSWER: Danube River [or the Donau River; or the Duna River; or the Dunaj River; or Dunarea River; or the Dunav River; or the Dunay River] < David Dennis>/<ed. Jacob>

## Bonuses

1. Answer some questions about medications that have earned a lot of money for their corporations. For 10 points each:
[10] Cimetidine ("suh-MET-uh-deen") is an h2 blocker which treats excess acid in this organ.
It is commonly sold as Tagamet and is considered the first "blockbuster drug."
ANSWER: stomach
[10] Scientists working for this company were trying to make a drug for hypertension and chest pain. It showed an unintended consequence in clinical trials, earning the company a fortune as Viagra.
ANSWER: Pfizer
[10] Pfizer also produces Zoloft, a wildly successful SSRI-type medication for the treatment of this condition. It works by selectively inhibiting the reuptake of serotonin.
ANSWER: depression <Alex Harmata>/<ed. David Dennis>
2. This emperor allowed for anyone who reached the eighth of fourteen classes to achieve hereditary nobility in his Table of Ranks system. For 10 points each:
[10] Name this westernizing Tsar of Russia, who also taxed the beards of his nobles. ANSWER: Peter the Great [or Peter I; or Pyotr Alexeyevich; prompt on Peter]
[10] Peter fought Charles XII of this country during the Great Northern War. The cossack Ivan Mazepa aided this country during the Great Northern War.
ANSWER: Sweden [Kingdom of Sweden; or Sverige; or Svithiod]
[10] Ivan Mazepa aided Sweden during this battle of the Great Northern War near a namesake Ukrainian city. During this battle, Alexander Menshikov defeated the forces of Marshal Rehnskiold.
ANSWER: Battle of Poltava <Cole Phinney>/<ed. Jacob>
3. He separated the earthly and heavenly realms in The Burial of the Count of Orgaz. For 10 points each:
[10] Name this Renaissance artist who painted his adopted Spanish home in View of Toledo. His nickname refers to his birth on Crete.
ANSWER: El Greco [or Domenikos Theotokopoulos]
[10] This painting by El Greco features a figure dressed in blue with his arms stretched overhead. In this painting, many nude figures appear near yellow and green sheets, and cherubim give them white robes.
ANSWER: Opening of the Fifth Seal [or The Fifth Seal of the Apocalypse; accept, but do not otherwise reveal: The Vision of Saint John]
[10] The man in blue in Opening of the Fifth Seal is this saint, beheaded at the request of Salome.
ANSWER: John the Baptist [or John the Baptizer; prompt on John; do NOT prompt on or accept "John the Evangelist"] <David Dennis>/<ed. Seth Ebner>
4. Belial and Mammon have a debate in this poem's city of Pandemonium. For 10 points each: [10] Name this poem, whose antagonist declares that it is "better to reign in Hell than to serve in Heaven." In this epic poem, Satan tempts Adam and Eve in the Garden of Eden.
ANSWER: Paradise Lost
[10] This English author attempted to "justify the ways of God to man" in Paradise Lost. He lamented the drowning of Edward King in "Lycidas."
ANSWER: John Milton
[10] This poem by Milton is the origin of the phrase "they also serve who only stand and wait." In this poem, Patience replies that "God doth not need either man's work or his own gifts." ANSWER: "When I Consider How My Light is Spent" [or "On His Blindness;" or Milton's Sonnet 19] <Joe Stitz>/<ed. Jacob>
5. His 2007 speech in Munich gave rise to concerns about a possible second Cold War. Name some foreign policy decisions of Vladimir Putin for 10 points each.
[10] This Ukrainian peninsula was annexed following a military intervention by the Russian Federation in 2014. That action resulted in Russia being suspended from the G8.
ANSWER: Crimean peninsula
[10] Before handing the Russian presidency to Dmitri Medvedev in 2008, Putin made the decision to intervene in this country with capital Tbilisi. Russia still occupies its regions of Abkhazia and South Ossetia.
ANSWER: Georgia [Sakartvelo; or Sakartvelos Respublika]
[10] Since 2013, this former CIA employee has been granted asylum in Russia as he faces charges of violating the Espionage Act of 1917. He is accused of leaking classified information to journalists about the NSA.
ANSWER: Edward Snowden [Edward Joseph Snowden] <David Dennis>
6. A character in this novel believes that humanity is controlled by "the Combine" and escapes the hospital by throwing a control panel through a window. For 10 points each:
[10] Name this novel by Ken Kesey, which centers on Randle McMurphy's struggle to liberate his psychiatric ward from the control of Nurse Ratched.

## ANSWER: One Flew Over the Cuckoo's Nest

[10] This schizophrenic character narrates One Flew Over the Cuckoo's Nest. This character smothers McMurphy after a lobotomy turns him into a vegetable.
ANSWER: Chief Bromden [or Chief Broom; or the Chief]
[10] Randle attempts to change the cleaning schedules so that the men can watch this sport's championship. Players of this sport are the protagonists of Roy Hobbs' The Natural and Ernest Thayer's "Casey at the Bat."
ANSWER: Baseball [or a baseball player] <Wenzer Qin>/<ed. Jacob>
7. Followers of this religion celebrate eight sabbats and sometimes organize into covens of 3 to 13 people. For 10 points each:
[10] Name this neopagan religion that usually espouses a "Rede" and involves the practice of witchcraft.
ANSWER: Wicca [or word forms, such as Wiccanism or Wiccan; prompt on witches or witchcraft; prompt on pagans or paganism; prompt on neopaganism or neopagans]
[10] This man claimed to have joined the New Forest coven in 1939 and popularized Wicca in 1954. He later founded the Bricket Wood coven and a namesake Wiccan tradition.

ANSWER: Gerald Gardner [Gerald Brosseau Gardner; or Scire]
[10] The Bricket Wood Coven referred to this deity as Cernunnos, according to one of its former high priestesses. This male Wiccan deity is often depicted as being part animal and part human.
ANSWER: the Horned God <Sophia Johnson>/<ed. Jacob>
8. These mathematical objects include ellipses, parabolas, and hyperbolas. For 10 points each: [10] Name these two-dimensional curves obtained by slicing a plane through a namesake threedimensional figure.
ANSWER: conic sections
[10] The volume of a right, circular cone is the area of the base times the height times this constant.
ANSWER: $\mathbf{1 / 3}$ [or one-third]
[10] If you let the apex of a right, circular cone approach infinity, you obtain this figure as the limit.
ANSWER: cylinder <Alex Harmata>/<ed. Seth Ebner>
9. This woman authorized a series of nuclear tests in Pokhran that were codenamed Smiling Buddha. For 10 points each:
[10] Name this daughter of Jawaharlal Nehru, who was assassinated by her Sikh bodyguards after ordering an attack that damaged the Golden Temple at Amritsar.
ANSWER: Indira Gandhi [Indira Priyadarshini Gandhi; prompt on Gandhi]
[10] Indira Gandhi was the only female Prime Minister of this Asian country, which often fights with its neighbor Pakistan.
ANSWER: India [Republic of India; or Bharat; or Bharatavarsha]
[10] Indira Gandhi ordered this operation that attacked Sikh militants to try and recover control of the Golden Temple. After this operation, Gandhi was assassinated by her bodyguards. ANSWER: Operation Blue Star <Cole Phinney>/<ed. Jacob>
10. A talking reed helps this woman collect the fleece from some vicious rams who are energized by the sun. For 10 points each:
[10] Name this princess, who was to be taken to the top of a mountain and carried by Zephyr to her new husband. This woman's beauty aroused the envy of Aphrodite.
ANSWER: Psyche
[10] This son of Aphrodite was sent to make Psyche fall in love with something hideous, but fell in love with her instead. He would only visit Psyche at night, and forbid her to look at him.
ANSWER: Cupid [or Eros]
[10] The story of Cupid and Psyche was first told in this novel by Apuleius, where the magician Lucius turns himself into a donkey.
ANSWER: The Golden Ass [or Asinus Aureus; or the Metamorphoses of Apuleius] <David Dennis>/<ed. Jacob>
11. Don't want to think about the actual Presidential race? Let's enjoy some fictional presidents, for 10 points each.
[10] This actor played President Hames Marshall on Air Force One. This actor also played the adventurer-archaeologist Indiana Jones.
ANSWER: Harrison Ford
[10] Tony Hale plays Gary Walsh, an assistant to this fictional President played by Julia LouisDreyfus on Veep.
ANSWER: Selina Meyer [or Selina Meyer]
[10] This main character of the novel and British version of House of Cards was the inspiration for Kevin Spacey's character, President Frank Underwood.
ANSWER: Francis Urquhart [or Francis Urquhart] <David Dennis>/<ed. Sean>/<ed. Jacob>
12. Along with a proton, it is produced in the autoionization of water. For 10 points each:
[10] Name this anion found in milk of magnesia with formula "O-H minus". It bonds to alkali and alkaline earth metals in many strong bases.
ANSWER: hydroxide
[10] Salts of this other polyatomic anion are generally soluble, but it forms insoluble salts with strontium, barium, and lead. Its central atom in is its "plus 6" oxidation state.
ANSWER: sulfate [ $\mathrm{or} \mathbf{S O}_{4}{ }^{2-}$-]
[10] This term refers to substances that can act as either an acid or a base. Water exemplifies this as it can dissociate into both hydronium and hydroxide ions.
ANSWER: amphoteric [or amphiprotic] <Alex Harmata>/<ed. David Dennis>
13. Answer the following about the 18th dynasty of Ancient Egypt. For 10 points each:
[10] This 18th dynasty Pharaoh was a co-regent with Hatshepsut until her death. He sent his troops through the Aruna mountain pass to surprise the Canaanites at Megiddo.
ANSWER: Thutmose III [prompt on Thutmose]
[10] The 18th dynasty's first Pharaoh was Ahmose I, who expelled these invaders from Egypt. These people introduced the composite bow and the horse-drawn chariot to Egypt.
ANSWER: Hyksos
[10] The tomb of this son of Akhenaten and "boy Pharaoh" of the 18th dynasty was discovered by Howard Carter in 1922.
ANSWER: Tutankhamen [King Tut; or Tutankhamun; or Tutankhamon] <Cole Phinney>/<ed. Jacob>
14. Less than 100 miles north of the Fukushima Daiichi power plant, it was the major city hit hardest by Japan's 2011 earthquake and subsequent tsunami. For 10 points each:
[10] Name that Japanese "City of Trees," the largest city in Japan's northern Tohoku region. ANSWER: Sendai
[10] In 2004, a tsunami in this ocean killed over two hundred thousand people. The earthquake at fault was centered off the coast of Sumatra, which borders this ocean.
ANSWER: Indian Ocean
[10] In 1755, an earthquake near this Iberian capital led to a tsunami surging up its Tagus River. Casualties from the event were in the tens of thousands.
ANSWER: Lisbon <Alex Harmata>/<ed. Chris Chiego>
15. The protagonist of this novel kills the playwright of "The Enchanted Hunters," Clare Quilty. For 10 points each:
[10] Name this novel about Humbert Humbert's obsession with the 12-year-old Dolores Haze, the title "nymphet."
ANSWER: Lolita
[10] This Russian novelist of Pnin and Pale Fire also wrote about Humbert Humbert's admiration of "nymphets" in Lolita.
ANSWER: Vladimir Nabokov [Vladimir Vladimirovich Nabokov]
[10] In Pale Fire, the editor Charles Kinbote critiques the title 999-line poem, which was created by this character.
ANSWER: John Shade [or John Shade] <Sherry Xie>/<ed. Jacob>
16. These objects include necklaces and armbands, which were described as "worthless trinkets" in Argonauts of the Western Pacific. For 10 points each:
[10] Name these items, which are exchanged in the Kula ring by Trobriand Islanders. Marcel Mauss ("Mouse") analyzed the kula ring exchange in a book titled for these items.
ANSWER: gifts [or presents]
[10] This Polish anthropologist extensively studied the kula ring of the Trobriand Islanders in Argonauts of the Western Pacific and Coral Gardens and Their Magic.
ANSWER: Bronislaw Malinowski
[10] In the more hierarchical parts of the Trobriand Islands, only people who hold this title can really participate in the Kula ring. Holders of this title often led local bands of native tribes. ANSWER: chiefs [or hereditary chiefs; or Indian chiefs] <Sherry Xie>/<ed. Jacob>
17. Astronomers can classify stars based on their locations on this graph. For 10 points each: [10] Name this chart of stars that plots their luminosities against their colors.
ANSWER: Hertzsprung-Russell diagram [or H-R diagram]
[10] Most stars fall on this band of the H-R diagram. The Sun belongs to this group, and white dwarfs appear below this band while subgiants, giants, and supergiants appear above it.
ANSWER: main sequence
[10] Cepheid variables, RR Lyrae variables, and many other types of pulsating variable star are found in this region of the H-R diagram.
ANSWER: instability strip <Wenzer Qin>/<ed. Seth Ebner>
18. The title character of this play delivers the "tomorrow and tomorrow and tomorrow" soliloquy ("suh-lil-uh-kwee") and cannot be defeated until "Birnam Wood do come to Dunsinane." For 10 points each:
[10] Name this Shakespeare play in which the title Scottish king kills Banquo and Duncan and is killed by Macduff.
ANSWER: Macbeth
[10] These spooky women in Macbeth chant "Double, double, toil and trouble" and tell of future kings being of Banquo's lineage. This group of women serve Hecate.
ANSWER: the three witches [or the Weird Sisters]
[10] This author analyzed the Porter Scene in his essay "On Knocking at the Gate in Macbeth." He also wrote Confessions of an English Opium Eater.
ANSWER: Thomas De Quincey <Joe Stitz>/<ed. Jacob>
19. Many instruments use a standard piano keyboard layout, but use different mechanisms to create their sound. For 10 points each:
[10] This instrument worked by having the strings plucked by a plectrum rather than struck by hammers when a key is pressed. This instrument was extremely popular until its replacement by the piano in the 18th Century.
ANSWER: Harpsichord
[10] This bellows-driven instrument played by musicians such as Lawrence Welk often has a piano keyboard for the player's right hand, with buttons for the left hand.
ANSWER: Accordian
[10] This keyboard instrument is sometimes called the steam organ and is often associated with circuses. It shares a name with the Greek muse of epic poetry.
ANSWER: Calliope <David Dennis>
20. A revolt of these people was led by Pope ("popay"), who allied with the Apache to expel the Spanish from New Mexico. For 10 points each:
[10] Name these indigenous tribes in New Mexico, who also name some Native American dwellings that are made out of adobe.
ANSWER: Pueblos [or Pueblo Indians]
[10] This Colorado National Park was built by the Anasazi, or Ancient Pueblo. This park contains cliff dwellings such as the Cliff Palace, the largest cliff dwelling on the continent.
ANSWER: Mesa Verde National Park
[10] Mesa Verde National Park was one of five created by this president. This president also began "trustbusting" and succeeded William McKinley.
ANSWER: Theodore Roosevelt [or "Teddy" Roosevelt; or TR; prompt on Roosevelt] <Alex Harmata>/<ed. Jacob>

## Extra

If small enough bits of this substance are ejected high enough, it can be pulled by the wind into a delicate form of glass called Pele's hair. For 10 points each:
[10] Name this molten rock ejected out of an erupting vent. Its A'a type flow is characterized by a jagged surface.
ANSWER: Lava
[10] Contrasted with A'a flow is this smooth, billowy type of lava flow that has a lower viscosity due to its higher temperature.
ANSWER: Pahoehoe
[10] Both A'a and Pahoehoe form this type of extrusive igneous rock high in pyroxene and feldspars. The intrusive version of this rock is called gabbro.
ANSWER: Basalt <David Dennis>

