

Round 2

Bee Round 2

(1) Willem Gravesande studied this quantity, noting that penetration depth of weights dropped in clay correlated with speed. This quantity is conserved only in perfectly elastic collisions; otherwise, it is partially dissipated as heat or sound. Temperature is the average value of this for particles in a sample. This quantity is the work needed to accelerate an object from rest to a given velocity, and potential energy is converted to this quantity as an object falls. For the point, name this energy due to motion.

ANSWER: kinetic energy (prompt on energy)

(2) One writer with this surname wrote a verse novel that features Marian Erle opposite the title character, *Aurora Leigh*. That writer included a poem beginning “How do I love thee? Let me count the ways” in the collection *Sonnets from the Portuguese*. Another poet with this surname wrote a dramatic monologue about Fra Pandolf’s portrait of a woman in *My Last Duchess*. For the point, name this shared surname of Robert and Elizabeth Barrett.

ANSWER: Browning (accept Elizabeth Barrett Browning or Robert Browning)

(3) The use of “thick description” in this discipline was pioneered by Clifford Geertz’s *The Interpretation of Cultures*. Another important work in this discipline studied prisoners in Japanese-American internment camps in an attempt to understand the behavior of Japanese soldiers. Franz Boas, Ruth Benedict, and Margaret Mead were prominent scholars in, for the point, what social science that studies human culture, often contrasted with the study of human societies, sociology?

ANSWER: anthropology

(4) A similar creature to this one guarded the cattle of Geryon, and was this creature’s brother Orthrus. This creature was captured by a hero who was rescuing Theseus from a chair of forgetfulness. This mythical child of Typhon and Echidna was brought to the court of Eurystheus [yer-ISS-tee-us] for the twelfth of Herakles’ labors. For the point, name this mythological guardian of the underworld, a three headed dog.

ANSWER: Cerberos [KAYR-bayr-us] (or Cerberus [ser-ber-us])

(5) The title character of this work is freed when a victorious general is granted one wish by the king in front of a grand gate. In this work, Amonasro hides behind a rock and overhears battle plans shortly after the title character of this work sings “O patria mia.” This opera ends with Amneris praying to Isis as Radames is buried alive with the title Ethiopian princess. For the point, name this Giuseppe Verdi opera set in Egypt.

ANSWER: Aida

(6) After the last person to hold this position was exiled, he asked Lars Porsena for help in reclaiming his power. That seventh holder of this position was overthrown after his son had raped Lucretia. The last three holders of this position were of the Etruscan dynasty, and included Tarquin the Proud. After the end of this position, its state became a republic. For the point, name this monarchical position that ruled in the early years of an Italian empire.

ANSWER: King of Rome (or Rex Romae; prompt on partial answers)

(7) In a scene near the start of this film, the main character's grandmother crosses a street thanks to the luck of a cricket. Donny Osmond and Lea Salonga provided singing voices for this film, whose songs include "A Girl Worth Fighting For" and "I'll Make a Man Out Of You". It starred Eddie Murphy as Mushu and Ming-Na Wen as the main character, who defeats the Huns. For the point, name this 1998 Disney animated film in which title woman defends China against invasion.

ANSWER: Mulan

(8) A character in this novel, David Gamut, sings to beavers and travels with Major Duncan Heyward to a Huron village to rescue Alice while this novel's protagonist sets out to rescue Cora. In this novel, Colonel Munro's daughters are targeted by Magua. Natty Bumppo befriends Uncas and Chingachgook in, for the point, what novel by James Fenimore Cooper about the final member of a Native American tribe?

ANSWER: The Last of the Mohicans

(9) These objects are classified into "hollow column," "plate," and "dendrite" shapes, among others. Tor Bergeron proposed the mechanism from which these objects form from crystals. Wilson Bentley captured these things on blackboards and quickly transferred them to microscope slides to photograph them. When supercooled droplets of water gather on these things, graupel forms. These things typically have sixfold symmetry, and in 1988, Nancy Knight found a pair of these objects that were identical in shape. For the point, name this type of precipitation that falls during blizzards.

ANSWER: snowflakes (prompt on snow)

(10) Alfred Vanderbilt died aboard this ship. A newspaper advertisement for this ship was run with a notice from a foreign embassy warning that a "state of war exists." This ship, named for the Roman province of Portugal, was lost in just 18 minutes, killing 128 Americans off the coast of Ireland. For the point, name this British luxury ocean liner which was torpedoed and sunk by a German U-boat, helping convince the United States to join World War I.

ANSWER: RMS Lusitania

(11) The difference between the n th and the " n plus 1"th of these numbers is always equal to the " n plus 1"th odd number. There are nine of these positive numbers less than 100, and 3 less than 10. These values are added together to produce another of these numbers in successful uses of the Pythagorean formula. For the point, give this term for a number, like 4, 9, or 25, which has an integer second root.

ANSWER: perfect square number

(12) Henrietta Leavitt discovered that this quantity has a direct relationship with period for a Cepheid variable star. This quantity can be found by using the Stefan-Boltzmann equation and multiplying by area. This astronomical quantity is often converted to magnitude. This quantity, which has units of power, is known for a standard candle. This quantity is the total energy emitted by an astronomical object per unit time. For the point, name this quantity that effectively describes how bright an object is,

ANSWER: luminosity (prompt on brightness; prompt on magnitude before mentioned)

(13) One of these objects was given to the dwarven king Hreidmar as a wergild by Loki because Loki had killed his son Ótr. A cursed one of these objects was stolen from the dwarf Andvari and causes Fafnir to turn into a dragon to guard it. Odin has a golden one of these objects, which drips eight new copies of itself every nine nights, named Draupnir. For the point, name this type of jewelry that inspired a Richard Wagner [ree-card vog-ner] opera cycle and a J.R.R. Tolkien book series.

ANSWER: rings

(14) This quantity is equal to a particle's energy times its velocity divided by the speed of light squared. A planet orbits faster when it is closer to the sun because its angular form of this quantity is constant. Force is the rate of change of this quantity. This quantity is measured in kilogram-meters per second and is found by multiplying the mass and velocity of an object. For the point, name this physical quantity that is conserved when two bodies collide.

ANSWER: momentum

(15) A "short-twig" sample of this alphabet, honoring the son of Varinn, was built into a church wall in Rök. Another collection of writings in this alphabet is known as the Sigurd Stones. An Anglo-Saxon riddle poem hints at the names of this alphabet's letters, including Thorn, which is still used to represent the T-H sound in Iceland. For the point, name this alphabet of straight-lined letters used by Vikings that are often found carved into namesake stones.

ANSWER: Scandinavian runes (accept younger futhark or younger futhork; accept Dalecarlian runes; accept Anglo-Saxon runes)

(16) In 2013, a council in this nation disqualified Akbar Rafsanjani and dozens of others from running for president. In 2008, this country's president spoke at Columbia University two weeks after stating that Israel "should be wiped off the map." In 2015, this country announced a Joint Comprehensive Plan of Action regarding its nuclear program. While its President is Hassan Rouhani, its head of state is officially the Supreme Leader, Ayatollah Khomeini. For the point, name this Middle Eastern country with capital Tehran.

ANSWER: Islamic Republic of Iran

(17) Since 2002, this river's banks have seen palm trees, sand, and beach chairs imported for an urban beach party each summer. This river contains an island once home to the town of Lutetia and now the site of a Gothic cathedral, the Île de la Cité. This river feeds into the English Channel at Le Havre. For the point, name this major river of northern France, which flows past Notre Dame Cathedral and the Eiffel Tower in Paris.

ANSWER: Seine River

(18) Because of biological magnification, fat-soluble toxins accumulate in this type of heterotrophic organisms. Many organisms evolved adaptations to oppose these organisms, including warning coloration, camouflage, and mimicry. Some of these animals, like spiders and jellyfish, subdue food with venom, while others travel in packs for effective pursuit or ambush. Many have good eyesight and sharp talons or teeth for catching and shredding. For the point, name these carnivorous animals that hunt for, and consume, prey.

ANSWER: predators (prompt on carnivore)

(19) A dismembered soldier appears at the bottom of this painting with a flower growing out of a shattered sword. A light bulb in the shape of an eye at the top of this painting appears to explode over an impaled horse in this painting. A bull stands over a woman cradling her dead child in this painting of the destruction of a Basque town. For the point, name this mural-sized painting that decries the Spanish Civil War, created by Pablo Picasso.

ANSWER: Guernica

(20) The founder of this company joined the South Improvement Company, created by the head of the Pennsylvania Railroad, to consolidate his interests. This company was heavily criticized in *McClure's* magazine by Ida Tarbell in her history of this company. Under the Sherman Antitrust Act, this company was broken up into 34 pieces, two of which would become Exxon and Mobil. For the point, name this oil company founded by John D. Rockefeller.

ANSWER: Standard Oil Company

(21) In an Oscar Wilde short story, a "Selfish" one of these creatures blocks off his garden, but is taken to Heaven when he realizes his selfishness. In another work, the Manhugger, Bloodbottler, and Bonecruncher are three of a group of these creatures, one of whom snatches Sophie and explains that "people from Turkey taste like turkey." Roald Dahl's *BFG* is, for the point, what type of fairy tale creature, another of which is visited by Jack at the top of a beanstalk?

ANSWER: giants (accept The Selfish Giant; accept the BFG)

(22) This scientist resolved stereoisomers from tartaric acid crystals and worked to disprove spontaneous generation with meat broth in swan-necked bottles. This scientist reduced the mortality rate of puerperal fever in Paris hospitals by advocating germ theory. This scientist also created the first vaccines for rabies and anthrax. For the point, name this French chemist and microbiologist who created a namesake method to kill bacteria in milk by heating.

ANSWER: Louis Pasteur (accept pasteurization at the end)

(23) This man's home included slave quarters on Mulberry Row. With James Madison, this man protested the Alien and Sedition Acts with the Kentucky Resolutions. This founder of the University of Virginia allegedly had an affair with Sally Hemmings. Monticello was the home of, for the point, what Founding Father, whose epitaph famously does not mention his service as the third President of the United States?

ANSWER: Thomas Jefferson

(24) By the end of this novel, Percival has forgotten both his name and address. Maurice destroys the sandcastles of two “littleuns” in this novel. The all-important fire in this novel goes out when twins named Samneric fall asleep. Later in this novel, Roger crushes the conch shell and Piggy with a giant boulder. After being stranded on an island, Jack and Ralph fight for control over a gang of British schoolboys in, for the point, what novel by William Golding?

ANSWER: Lord of the Flies

(25) A 2016 analysis noted that this TV channel’s annual luxury sweepstakes costs the winner nearly \$700,000 in taxes. One of this channel’s programs is set in Waco, Texas and stars Chip and Joanna Gaines. This channel, which airs *Fixer Upper* and gives away an annual “dream home,” also airs five different shows featuring Jonathan and Drew Scott, the twin “Property Brothers.” For the point, name this cable channel whose programs like *House Hunters* focus on real estate and home remodeling.

ANSWER: HGTV (or Home & Garden Television)

(26) In some legends, this woman was preceded by a demoness who had an affair with Samael. In the Book of Jubilees, this woman is the mother of Arwan, and this successor to Lilith gave birth to Seth after the death of her second son. She was created from a rib, and she followed the instructions of a serpent that told her to eat fruit from the Tree of the Knowledge of Good and Evil in the Garden of Eden, thereby committing original sin. For the point, name this first woman, the wife of Adam.

ANSWER: Eve (or Hawwaa)

(27) The primary vector for this flavivirus is insects in the genus *Aedes*, and it can lead to Guillain-Barré syndrome. In addition, scientists in Dallas found that this viral disease can be transmitted through sexual contact. Symptoms of this disease include a rash and fever in adults, but it can induce microcephaly if a fetus is infected. For the point, name this virus whose spread in South America led to widespread warnings to pregnant women?

ANSWER: Zika virus (or Zika fever)

(28) This ruler won a bet of whether she could spend a fortune on a meal by drinking a pearl dissolved in vinegar. With her lover, this woman executed her sister, Arsinoe. This woman committed suicide with an asp’s bite after losing at the Battle of Actium. This ruler’s son with Caesar, Caesarion, briefly succeeded her, and she fell in love with Marc Antony, with whom she fought against Augustus. For the point, name this last active Pharaoh, a famed queen of Egypt.

ANSWER: Cleopatra VII

(29) This musical form was inspired by frottole [froh-toll-ay] like “El Grillo” [gree-yoh] by Josquin des Prez, which is now often considered to be in this form. This polyphonic form uses word painting in the vernacular language and peaked in the late 16th to early 17th centuries. For the point, name this form of secular choral music, popular in the Renaissance, which is often contrasted with the more-religious motet form and is commonly sung in holiday-time dinner theater.

ANSWER: madrigal

(30) This state's northwesternmost region contains shoals where Jean de La Pérouse almost lost two French frigates in 1786. In this state, strong currents in the Kalohi Channel gave rise to the name of Shipwreck Beach; that beach looks onto a location known for the leper colony run by Father Damien. The volcano Diamond Head can be seen from Waikiki Beach on this state's island of O'ahu. For the point, name this fiftieth state.

ANSWER: Hawai'i

(31) This poem's speaker rides on Geryon's back and meets Ulysses, who is imprisoned for his use of the Trojan horse. Paolo and Francesca da Rimini are trapped in a whirlwind in this poem, whose narrator is told to "abandon all hope." Virgil guides the narrator through nine "circles," where souls guilty of sins like gluttony and betrayal are punished in this work, the first part of the Divine Comedy. For ten points, name this poem by Dante about a journey through Hell.

ANSWER: Inferno (prompt on "Divine Comedy" or "Comedia" before "Divine Comedy" is read)

(32) This event is commemorated by the Lion's Mound, which was constructed by William I. One participant in this event wrote that the "successful result of this arduous day" was due to "Marshal Blucher [bloo-ker] and the Prussian army." Marshall Ney led a successful cavalry charge at this battle, but failed to spike the enemy's cannons. This battle ended the Hundred Days and resulted in the losing commander being exiled to St. Helena. The Duke of Wellington won, for the point, what final battle against Napoleon?

ANSWER: Battle of Waterloo

(33) This process occurs spontaneously above the autoignition temperature, and the heat produced may make this non-nuclear reaction self-sustaining. Hydrocarbons form carbon monoxide if this process is incomplete or water and carbon dioxide if it is completed, so doing this to coal pollutes the atmosphere. It takes place with gasoline internally in a namesake engine. For the point, name this chemical reaction in which a substance is burned in the presence of oxygen.

ANSWER: combustion (prompt on descriptions of burning before mentioned)

(34) Reflecting a function over this line cannot cause any reflected point to land on a point that was also in the original function, as that would indicate a failure of the vertical line test for functions. In standard position, this line points at zero and pi radians, and it separates the first two and last two numbered quadrants from each other. For the point, name this line graphed by the equation y equals 0, a horizontal line that splits the plane into positive and negative halves?

ANSWER: x-axis (or y equals 0 before mentioned)

(35) This poem sparked an angry reaction from the author's indecisive friend Edward Thomas. The speaker of this poem "shall be telling this with a sigh/somewhere ages and ages hence," and ends by noting that his choice "has made all the difference." The subject of this poem "lay/in leaves no step had trodden black" and is described as "wanting wear" in a "yellow wood." For the point, name this poem about two diverging roads, written by Robert Frost.

ANSWER: The Road Not Taken

Extra Question

Only read if moderator botches a question.

(36) John Donne's "Death be not Proud" appears in a collection of works in this poetic form entitled *Holy (these)*. An Italian author for whom a style of these poems is named wrote about his love for Laura in *Il Canzoniere*, which mainly consists of poems in this form. When Petrarch wrote in this poetic form, he used an octave and a sestet, although Shakespeare used three quatrains and a heroic couplet. For the point, name these poems that have fourteen lines.

ANSWER: sonnets