

2012 Collaborative Middle School Tournament

Round 10

1. The would-be assassin of this person clashed with his attorney, Judy Clarke, when told his target survived. She received a standing ovation from Congress when she appeared to cast a vote in August 2011. Less than 7 months earlier, she was fighting for her life, after being shot in the head by Jared Loughner in a Safeway parking lot. For 10 points, name this Arizona congresswoman who resigned her office in January 2012.

ANSWER: Gabrielle “Gabby” **Giffords**

2. Spin-spin splitting can occur in NMR spectroscopy of these entities. Free examples of these particles make up ninety percent of cosmic rays. These particles are made up of 2 up quarks and 1 down quark, and were discovered by Earnest Rutherford. The atomic number designates the number of, for 10 points, what positively charged subatomic particles that, with neutrons, make up the nucleus of an atom.

ANSWER: **proton** [or **hydrogen ion**; or **H+**; accept **hydrogen** before “cosmic rays”]

3. In this novel, Bob Sheldon and Randy Adderson take part in an attack on Johnny, causing Johnny to fear for his life. Johnny and his best friend meet two girls at a theater, who turn out to be their attackers’ girlfriends, Marcia and Cherry. Later in this novel, Johnny tells Ponyboy to “stay gold,” just before he dies of injuries sustained in a fire. For 10 points, identify this novel by S.E. Hinton.

ANSWER: *The* **Outsiders**

4. After initiation into the Khalsa (KAHL-sah) in this religion, adherents must wear a wooden comb, known as the “kanga”(KAHN-gah), and a steel bracelet, known as the “kara” (KAH-rah), which are two of the five K’s. Arjun (AR-joon) Dev compiled this religion’s holy text, the Adi Granth, which contains many of the sayings of the first leader, or guru, of this religion. For 10 points, identify this religion founded by Nanak, whose adherents are mostly found in the Punjab region.

ANSWER: **Sikhism**

5. The density of this quantity is equal to electrical field times conductivity. The integral of the magnetic field is proportional to this quantity by Ampere’s Law. For a diode, this is proportional to the exponential voltage. Ohm’s Law states that voltage is equal to this quantity times resistance. For 10 points, name this quantity measured in amperes, the amount of charge flowing through a point over time.

ANSWER: **current** [or **I**]

6. The Ghawar (gah-WAHR) oil field is located in this nation, whose flag contains an image of a white sword on a green field. During Operation Desert Shield, American troops defended this country, angering radical Muslims like Osama bin Laden, who was born in this country. A desert called the Empty Quarter covers its borders with Oman and the UAE. For 10 points, what kingdom occupies most of the Arabian Peninsula?

ANSWER: **Saudi Arabia**

7. One trilogy by this author deals with the rise and fall of the Snopes family. Most of his stories take place in Yoknapatawpha (YOKE-nah-pah-TAH-fah) County, including one in which Shreve is told the story of Thomas Sutpen. That novel, *Absalom, Absalom!*, is narrated by Quentin. In this man's most famous novel, Benjy Compson reminisces about his childhood with Caddy. For 10 points, name this Southern author of *The Sound and the Fury*.

ANSWER: William Cuthbert **Faulkner**

The 2012 Collaborative Middle School Tournament was written and edited by Joe Brosch, Kristin I. Burns, Michael Falk, Brad Fischer, Matt Hayes, Kathy Hempel, Jeff Hoppes, Mike Laudermitth, Charles Martin Jr., Jacob O’Rourke, Mike Perovanovic, Jeffrey Price, David Reinstein, Donald Taylor, Tristan Willey, Mike Wong, Dwight Wynne, Ben Zhang, and possibly some other people.

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8. This artist of *The Bridge Stripped Bare By Her Bachelors, Even* drew a mustache and goatee on a Mona Lisa in *L.H.O.O.Q.* His *Nude Descending a Staircase, No.2* was compared to an “explosion in a shingle factory.” His series of readymades includes an overturned urinal inscribed “R. Mutt.” For 10 points, name this Dada artist of *Fountain*.

ANSWER: Marcel **Duchamp**

9. This man was the first to institute retirement and disability benefits. This man instituted the May Laws as part of his anti-Catholic program, *kulturkampf* (KOOL-toor-kahmf). He manipulated the Schleswig-Holstein (SHLESS-vig HOLE-styne) question into war with Austria and doctored the Ems Telegram to instigate an 1870 war with France. For 10 points, name this “Iron Chancellor” of Prussia and Germany from 1862 to 1890.

ANSWER: Otto von **Bismarck**

10. This function's namesake law relates the side length to the opposite angle in any triangle. Its value is one at 90 degrees but negative one at 270 degrees. Its reciprocal is the cosecant function. In a right triangle, it is defined as the ratio of opposite divided by hypotenuse. For 10 points, name this trigonometric function that is not the tangent or cosine.

ANSWER: **sine**

11. This man begins one novel by noting, “I am a sick man. I am a spiteful man.” In addition to *Notes from Underground*, he wrote novels about the epileptic Prince Myshkin (MISH-kin) and the axe murderer Raskolnikov (rahs-KOL-nih-kahv). Those books, *The Idiot* and *Crime and Punishment*, were written before a novel in which Dmitri, the oldest of four brothers, apparently murders his father. For 10 points, name this Russian author of *The Brothers Karamazov*.

ANSWER: Fyodor **Dostoevsky**

12. The European cuckoo is a brood example of this type of bird, and mistletoe is a common plant of this type. Trypanosomes (trih-PAN-oh-soams), which cause sleeping sickness, are one of many protist species of this type, and the blood fluke is this kind of worm that uses a snail as an intermediate host. For 10 points, name these organisms, like ticks and tapeworms, that feed in or on the body of another organism, harming it in the process.

ANSWER: **parasite** [or **parasitic**]

13. This composer of the oratorio *Judith Triumphans* and the opera *Orlando Furioso* composed a set of twelve violin concertos titled *The Contest Between Harmony and Invention*, the first of which simulates a barking dog using forte violas and the fourth of which uses pizzicato notes to mimic icy rain in winter. Nicknamed the Red Priest, for 10 points, name this Italian composer who included *La Primavera* (PREE-mah-VAIR-uh), or “Spring,” in *The Four Seasons*.

ANSWER: Antonio **Vivaldi**

14. One provision in a treaty of this name called for Congress to “eagerly recommend” that state legislatures provide for the rights and properties of certain citizens to be returned. One treaty by this name ended the French and Indian War, and another treaty by this name would give one of the countries involved Cuba, Puerto Rico, and the Philippines. For 10 points, name these treaties signed in the capital city of France.

ANSWER: Treaty of **Paris**

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15. In this novel, some mice fabricate a question that a super-computer was attempting to formulate, but it was destroyed minutes before the end of its 10 million year program. This novel features a whale's internal monologue and a Vogon poetry reading. For 10 points, Arthur Dent survives the Earth's destruction in what Douglas Adams novel titled after an encyclopedia for space hobos?

ANSWER: *The Hitchhiker's Guide to the Galaxy*

16. National parks in this state preserve the Valley of Ten Thousand Smokes, the Kenai Fjords, and Mount St. Elias. Its Bristol Bay is a center of the salmon-fishing industry. The highway that connects this state to the rest of the union crosses British Columbia and the Yukon before it reaches Fairbanks. For 10 points, name this 49th state, the only one that adjoins the Bering Sea and contains part of the Arctic Circle.

ANSWER: Alaska

17. This man created a wedding guest who is accosted by a man lamenting, "Water, water everywhere, nor any drop to drink" in "The Rime of the Ancient Mariner." He collaborated with William Wordsworth on *Lyrical Ballads* and wrote a possibly opium-induced poem about a Mongol emperor who decreed "a stately pleasure dome" in Xanadu (ZAN-ah-doo). For 10 points, name this British poet of "Kubla Khan."

ANSWER: Samuel Taylor Coleridge

18. One deity from this myth system received the four winds as a gift from his grandfather and used them to kill its creator goddess, Tiamat (TEE-ah-maht). Another deity from this myth system corresponds to the Sumerian Inanna (ee-NAH-nah) and removed seven objects of clothing at seven different gates in the underworld. For 10 points, Marduk (MAR-dook) and Ishtar appear in what myth system that also includes the legendary king Gilgamesh?

ANSWER: Babylonian [accept Mesopotamian; do not accept other more specific Mesopotamian civilizations, such as "Sumerian" or "Assyrian"]

19. This leader defeated General Arnegisclus (ar-neh-GISS-kluss) at the Battle of the Utus shortly before destroying the city of Marcianopolis. He withdrew after the Battle of the Catalaunian Plains against armies under the command of Flavius Aetius (FLAY-vee-us AY-tee-us) and Theodoric (THEE-oh-DOR-ick) I of the Visigoths. This man shared power with his brother Bleda (BLAY-duh) until Bleda's death around 445. For 10 points, identify this man nicknamed the Scourge of God, leader of the Huns.

ANSWER: Attila the Hun

20. He published a then-controversial theory in "On the Revolutions of the Celestial Spheres," whose preface included a dedication to Pope Paul III so as to deflect controversy. In critiquing an opposing theory, he criticized the separate treatment of each planet, as had been done by Ptolemy (TAHL-eh-mee). For 10 points, name the astronomer who first proved the theory of heliocentrism (HEE-lee-oh-SEN-trizz-uhm), a Polish scientist.

ANSWER: Nicolaus Copernicus

Extra. Scientists announced the discovery of 17 of these objects via infrared satellite imagery in May 2011 at the abandoned capital of Tanis. Some of the oldest known of these structures were constructed over 5,600 years ago, including one for Khufu (KOO-foo). For 10 points, identify these structures often used as tombs for Egyptian pharaohs whose most famous examples are located at Giza.

ANSWER: pyramids

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Bonuses

1. The First Fleet of 1788 established the first British convict settlement in this nation. For 10 points each:
[10] Name this Southern Hemisphere nation, whose states include New South Wales, Victoria, and Queensland.

ANSWER: **Australia**

[10] Australia's most populous city is this capital of New South Wales. Its harbor contains an opera house designed by Danish architect Jorn Utzon (YORN OOT-zon).

ANSWER: **Sydney** [accept **Sydney** opera house]

[10] Another Australian landmark is this red-sandstone monolith in the Northern Territory, known to local Aborigines as Uluru.

ANSWER: **Ayers Rock**

2. These biological catalysts work by lowering the activation energy of a reaction. For 10 points each:
[10] Name these proteins that bind substrates at their active site to speed up cellular reactions.

ANSWER: **enzyme**

[10] Like all proteins, enzymes consist of a chain of these molecules whose 20 types include lysine, phenylalanine, and tryptophan.

ANSWER: **amino acids**

[10] The sequence of amino acids in a protein is coded by the order of bases in this molecule with a sugar-phosphate backbone and double helix shape.

ANSWER: **DNA** [or **deoxyribonucleic acid**]

3. This sport was played by Ivan Lendl and Boris Becker. For 10 points each:

[10] Name this sport played by Rafael Nadal and Roger Federer. One of its biggest tournaments is Wimbledon.

ANSWER: **tennis** [accept lawn **tennis**]

[10] Give the last name of American tennis-playing sisters Venus and Serena. They have 20 major titles between them.

ANSWER: (Venus and Serena) **Williams**

[10] This Serbian man ended 2011 as the number one ranked player in the world. In that year he won the Australian Open, Wimbledon, and the U.S. Open.

ANSWER: Novak "Nole" **Djokovic**

4. This term comes from the Greek words for together ordering. For 10 points each:

[10] This part of grammar involves the way words are combined to form phrases and sentences.

ANSWER: **syntax**

[10] This type of sentence asks a question.

ANSWER: **interrogative**

[10] This type of sentence, contrasted with the compound and complex types, consists of a single clause.

ANSWER: **simple**

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5. This president signed the Emancipation Proclamation in 1863. For 10 points each:

[10] Name this sixteenth President of the United States, who led the country through the Civil War.

ANSWER: Abraham **Lincoln**

[10] Lincoln was succeeded by this man, the only southern Senator not to resign his position. He was the first president to undergo the impeachment process, but was found not guilty by one vote.

ANSWER: **Andrew Johnson** [prompt on **Johnson**]

[10] This Secretary of State under Lincoln and Johnson was responsible for the purchase of Alaska, known as his namesake “Folly.”

ANSWER: William Henry **Seward**

6. These figures are used to compare the relationships of set. For 10 points each,

[10] Name these figures usually drawn with overlapping circles used for comparing and contrasting items with given traits.

ANSWER: **Venn** diagrams

[10] This term is defined as the set of elements sharing each of two possible traits. In a Venn diagram this term refers to the area where the circles overlap.

ANSWER: **intersection**

[10] This distinction refers to a unique set that has no elements, for instance, the set of real solutions to $x^2 + 4 = 0$.

ANSWER: **empty** set [accept **null** Set]

7. Prominent members of this church include Jon Huntsman and Mitt Romney. For 10 points each:

[10] Identify this church, which is also known as the Church of the Latter Day Saints.

ANSWER: **Mormon** Church [accept **Mormonism**]

[10] This man took over as leader of the Mormon Church after its founder, Joseph Smith, was killed by a mob and settled the Church in Utah. A university located in Salt Lake City is named after this leader.

ANSWER: Brigham **Young**

[10] Joseph Smith produced the Book of Mormon using two golden plates given to him by this angel and last Nephite (NEE-fite) prophet.

ANSWER: **Moroni**

8. For 10 points each, name these books by Francis Hodgson Burnett.

[10] Sarah Crewe, this book’s title character, receives magical gifts from a monkey after her father dies searching for riches in India.

ANSWER: A **Little Princess**

[10] Mary Lennox and her invalid cousin nourish flowers and animals with Dickon, a Yorkshire boy with a talent for handling animals, in this book’s title location.

ANSWER: *The* **Secret Garden**

[10] The title small boy of this book is sent by his American mother to live with her father-in-law in England, in order for him to learn his place in the British nobility.

ANSWER: **Little Lord Fauntleroy**

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9. It exists inside the Earth's mantle and contains a liquid outer region and solid inner region. For 10 points each:

[10] Name this region at the center of the Earth.

ANSWER: core

[10] Other than iron, this is the most prevalent element in the Earth's core. It is also found with iron in many meteorites.

ANSWER: nickel [or Ni]

[10] The scientific study of the Earth's core is often related to this science of earthquakes because they are both concerned with elastic waves traveling through Earth.

ANSWER: seismology [accept different word endings]

10. For 10 points each, name these twentieth century American artists.

[10] This wife of Alfred Stieglitz painted *Ram's Head White Hollyhock and Little Hills*, a large cattle skull with a white and yellow flower, and other works of the American Southwest.

ANSWER: Georgia Totto O'Keeffe

[10] This artist was painted several covers for the *Saturday Evening Post*, including Rosie the Riveter and the Four Freedoms.

ANSWER: Norman Percevel Rockwell

[10] This photographer developed the Zone System and is best known for his pictures of Yosemite National Park, including *El Capitan* and *Moon and Half Dome*.

ANSWER: Ansel Easton Adams

11. Much of this work takes place on the *Nellie*, a boat that goes to Africa. For 10 points each:

[10] Name this novella in which Charles Marlow travels up the Congo River to find Kurtz.

ANSWER: Heart of Darkness

[10] *Heart of Darkness* was written by this author of *Lord Jim*, *Nostromo*, and *The Secret Sharer*.

ANSWER: Joseph Conrad [or Josef Teodor Konrad Korzeniowski]

[10] Conrad's *The Secret Agent* is about a failed plot to blow up this building whose location defines the Prime Meridian.

ANSWER: Greenwich (GREN-itch) Observatory [or Royal Observatory, Greenwich]

12. For 10 points each, answer the following about antagonists from *The Odyssey*.

[10] Zeus sent Hermes to negotiate with this sea nymph for Odysseus's release after he was kept hostage for seven years.

ANSWER: Calypso

[10] The sorceress Circe turned Odysseus' men into these creatures.

ANSWER: pigs [or swine]

[10] The monster Charybdis (kah-RIB-diss) took the form of one of these rotating bodies of water.

ANSWER: whirlpools

13. The people shouted: "God wills it" when Pope Urban II called for the first of these conflicts. For 10 points each:

[10] Name these religious conflicts fought between Christians and Muslims over control of the Holy Land.

ANSWER: Crusades

[10] This disastrous crusade was led by twelve-year-old Stephen of Cloyes. All of its young participants were either killed or sold into slavery in North Africa shortly after leaving Marseille (mar-SAY).

ANSWER: Children's Crusade

[10] In this other disastrous crusade, the crusaders desecrated Constantinople to pay off a debt to Venice and never reached the Holy Land.

ANSWER: Fourth Crusade

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14. The singer Musetta dances a waltz in Act 2 of this opera, enraging her former lover, the painter Marcello. For 10 points each:

[10] Name this Giacomo Puccini opera, premiered in 1896 by Toscanini, which centers around the love of Rodolfo and Mimi and is set in the Latin Quarter of Paris.

ANSWER: La Bohème (boe-EM)

[10] Even though *La Bohème* is set in Paris and based on a collection of French stories, it is performed in this language, as were Puccini's other operas, such as *Tosca*.

ANSWER: Italian language [accept word forms]

[10] In *La bohème*, Mimi suffers from this disease, commonly called consumption.

ANSWER: tuberculosis [prompt on TB]

15. One of the rebel groups in this country is the Justice and Equality Movement. For 10 points each:

[10] Name this country, headed by Omar al-Bashir, which in December 2011 killed rebel Khalil Ibrahim in its North Kordofan state.

ANSWER: Sudan

[10] It is believed that Ibrahim was trying to move to this nation that became independent in 2011.

ANSWER: South Sudan

[10] The Justice and Equality Movement has focused on this region in western Sudan which was in a State of Humanitarian Emergency from 2003 through 2010.

ANSWER: Darfur

16. This is a computation bonus. A certain bacteria population doubles each day. For 10 points each:

[10] If you start with two bacteria, how many will there be four days later?

ANSWER: 32

[10] If it takes the bacteria 30 days to fill a container, how many days will it take the bacteria to fill half the container?

ANSWER: 29

[10] It takes ten days for the number of bacteria to be multiplied by more than a thousand. Starting from scratch, how many days will it take for the number of bacteria to be multiplied by more than a billion?

ANSWER: 30

17. Before World War I, this man had a major work, *Hind Swaraj*, published in South Africa. For 10 points each:

[10] Name this nonviolent leader of India's independence movement who was assassinated by Nathuram Godse.

ANSWER: Mahatma Gandhi [or Mohandas Karamchand Gandhi]

[10] Gandhi led a march protesting British regulation of this commodity from Sabarmati (SAH-bar-MAH-tee) to Dandi (DAH-nee), where he picked up a lump of this substance.

ANSWER: salt

[10] Under the patronage of Gandhi, this man was made the president of the Indian National Congress and later became India's first prime minister.

ANSWER: Jawaharlal Nehru (JAH-wah-HAR-lal NAY-roo)

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18. For 10 points each, identify some powers held by the legislative branch.

[10] The legislative branch is given this power, which has only been exercised five times. A namesake “Powers Act” was enacted by Congress to prevent the President from claiming too much of this power.

ANSWER: declare **war** [do not accept “make war” or “wage war”]

[10] The power to declare war is one of these 18 powers listed in Article I, Section 8 of the U.S. Constitution.

ANSWER: **enumerated** powers

[10] Congress often uses this enumerated power to justify a wide variety of trade and non-trade policies. This power was the subject of *Schechter Poultry Corp. v. U.S.* and *Gibbons v. Ogden*.

ANSWER: regulate **commerce** [accept **commerce clause**]

19. This poem ends “You’ll be a man, my son!” For 10 points each:

[10] Name this poem with a one-word title, which begins by talking about keeping your head when others are losing theirs.

ANSWER: “**If--**”

[10] That poem was written by this author of *The Jungle Book* and *Just So Stories*.

ANSWER: Rudyard **Kipling**

[10] Kipling also wrote this poem about a water carrier who saves the life of the narrator. The narrator tells the title water carrier, “You’re a better man than I am.”

ANSWER: “**Gunga Din**”

20. The radius of one of these objects is smaller than its Schwarzschild radius. For 10 points each:

[10] Name these objects from which nothing, including light, can escape.

ANSWER: **black holes**

[10] This is the boundary around a black hole. According to some theories, nothing from inside a black hole can pass through it and affect the world outside the black hole.

ANSWER: **event horizon**

[10] Scientists have debated whether or not black holes emit the radiation named after this physicist, who with Kip Thorne lost a bet against John Preskill.

ANSWER: Stephen **Hawking**

Extra. This New York City borough includes Roosevelt Island and Liberty Island in addition to its namesake island.

[10] Name this borough that includes Central Park, Broadway, and the World Trade Center site.

ANSWER: **Manhattan**

[10] Manhattan contains this building that was the tallest in the world from 1931 to 1972 and that since the 9/11 attacks is the tallest in New York City.

ANSWER: **Empire State** Building

[10] One U.S. Representative representing a district in Manhattan is this former Chair of the Ways and Means Committee who was censured in 2010.

ANSWER: Charles **Rangel**