# 2012 Collaborative Middle School Tournament Round 4 

## Tossups

1. This leader was denounced by his successor in the "Secret Speech." His country agreed to a nonaggression pact with Germany, but Hitler invaded his nation in Operation Barbarossa. He won a power struggle against Leon Trotsky after Vladimir Lenin's death. For 10 points, name this Soviet Premier during the Second World War.
ANSWER: Joseph Stalin [or Joseph Dzughashvili]
2. This character's birthday is May 8. She trades the fish she catches at The Hob, a black market in District 12. After the reaping, she volunteers to take her sister Primrose's place. Her tumultuous relationship with Peeta continues and changes through Catching Fire and Mockingjay. For 10 points, name the protagonist of Suzanne Collins' "Hunger Games" series.
ANSWER: Katniss Everdeen [accept either underlined name]
3. This piece follows the tenor Air "Thou shalt break them" and, after a break, precedes "I know that my Redeemer liveth." King George II supposedly stood during its 1743 London premiere. It includes the line "King of Kings and Lord of Lords," and notes "He shall reign forever and ever." For 10 points, name this choral excerpt from Handel's oratorio Messiah, named for its opening word of praise.
ANSWER: Hallelujah Chorus [prompt on Messiah before mentioned]
4. These objects contain the zone of plastic flow and the zone of brittle flow. They are formed by compressing firn, and parts of them break off by calving. Till is soil left behind by these objects, which also push material to form moraines. Cirques (SERKS) and fjords (FYORDS) are among the landforms due to erosion by these objects. For 10 points, name these moving masses of land ice.
ANSWER: glaciers
5. This country's northwest is home to the Islamic Uighur (WEE-gur) people. The leader of another religion from this country described the "Five Great Relationships" and listed virtues like "reciprocity" and "culture" in one of the "Four Books." Adherents of a third religion from this country follow the practice of "no action," or wu wei. For 10 points, identify this country home to Confucianism and Daoism.
ANSWER: China [or People's Republic of China; do not accept or prompt on "Republic of China"]
6. Characters in this novel include the Zoroastrian Fedallah (feh-DAH-lah), a Native American called Tashtego, and a South Sea islander named Queequeg (KWEE-KWAIG). This novel's narrator begins by telling the reader to "call me Ishmael" and ends up clinging to a coffin when the captain of the Pequod and all but one of his crew are drowned. For 10 points, Herman Melville wrote what novel about Ahab's quest for the white whale?
ANSWER: Moby-Dick (; or The Whale)
7. Biot-Savart's Law gives the field of this type for a current carrying wire; the strength of that field is measured in Gausses and Teslas. There are para-, dia-, and ferro-forms of this phenomenon, the latter of which is expressed by metals such as nickel and iron. For 10 points, name this phenomenon whose field has both north and south poles, and which is often paired with electricity.
ANSWER: magnetism [or magnetic field]

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 Laudermith, 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.

## 2012 CMST - Round 4

8. At the Battle of Kirina, Sumanguru (SOO-man-GOO-roo) was defeated by the founder of this empire, Sundiata Keita. Another of this empire's rulers had the Sankore (SAN-koh-REH) mosque built in Timbuktu and caused a dramatic decrease in the price of gold by giving away vast amounts of the metal on his hajj to Mecca. For 10 points, identify this West African empire once ruled by Mansa Musa. ANSWER: Mali Empire
9. Four people were killed in this city's St. John's Regional Medical Center, which is now closed and scheduled for demolition. The Red Cross estimated $25 \%$ of this town was destroyed that same day, including about 7,000 houses. For 10 points, identify this Missouri city devastated by a tornado rated as an EF-5, the highest on the Enhanced Fujita scale, in May 2011.
ANSWER: Joplin Tornado Outbreak [prompt on tornado until mentioned]
10. This country was officially recognized in the Lateran Treaties of 1929. It has extraterritorial authority over Castel Gandolfo. Places of interest in this country include the Sistine Chapel and Saint Peter's Square and Basilica. Voting in this country is restricted to Cardinals under eighty years old. For 10 points, name this world's smallest country located entirely within the city of Rome.
ANSWER: State of the Vatican City [accept Holy See; accept $\underline{\text { Santa Sede; accept Stato della Citta del }}$ Vaticano]
11. In Boolean algebra, this property holds that a value multiplied by its inverse is equal to zero. For matrices under addition, a function of this name is given by a matrix with all zeros. This term applies to functions that take a number to the first power, multiply it by one, or do any other operation that returns the input. For 10 points, any number plus zero equals itself according to what kind of property of addition?
ANSWER: identity function [or identity property]
12. This author represented three branches of Christianity as Peter, Martin, and Jack in A Tale of a Tub. One satire by this man facetiously calls for serving Irish babies as food and is called A Modest Proposal. His most famous work depicts the travels of the title captain to various fantastical lands, including Glubbdubdrib. For 10 points, name this Irish author of Gulliver's Travels.
ANSWER: Jonathan Swift
13. In this work, a floating female carries a flame lit lamp and a soldier is clutching a broken sword from where a flower is growing. This work also has a distraught horse in the background and a bull standing over a woman, who is grieving over a dead child. For 10 points, name this work by Pablo Picasso created to bring world notice to the bombings during the Spanish Civil War.

## ANSWER: $\underline{\text { Guernica }}$

14. In 1994 this band released their debut album, the Blue Album. One music video by them shows groups of people breaking Guinness World Records including Largest Game of Dodgeball and Largest Air Guitar Ensemble. Its lead singer is Rivers Cuomo. For 10 points, name this band whose songs include "Beverly Hills," "Troublemaker," and "Say it Ain't So."
ANSWER: Weezer
15. This character interrupts a round of storytelling by attacking a stash of wine-skins. He wears a washbasin as a helmet while calling himself the Knight of the Sorry Face. He owns the horse Rocinante (ROH-sin-AHN-tay) and frequently speaks of his love for Dulcinea (dull-sin-AY-ah) to his friend Sancho Panza. For 10 points, name this self-proclaimed knight from La Mancha who fights against windmills in a book by Miguel de Cervantes.
ANSWER: Don Quixote de la Mancha

## 2012 CMST - Round 4

16. States in this nation include Mato Grosso and Bahia, a center of 17 th-century sugar plantations. Pedro Cabral accidentally discovered this country, which was east of a line established by the Treaty of Tordesillas and thus became the only Portuguese-speaking country on its continent. Sao Paulo, Rio de Janeiro, and the Amazon rainforest are located in, for 10 points, what largest country in South America? ANSWER: Federative Republic of Brazil
17. Great White Spots are frequent storms on this planet. Its moons include Iapetus, Rhea, Enceladus, and the only known one to have an atmosphere. This planet is less dense than water. The Cassini Division is located in its extensive ring system. For 10 points, name this second largest planet in the solar system, the sixth from the Sun.
ANSWER: Saturn
18. Before this event, a three-year winter will end almost all life. During this event, one deity's son will use a giant shoe to take revenge for his father's death. At its start, Heimdall will blow the Gjallarhorn and Loki will break free from his imprisonment. During this event, Thor will kill the Midgard Serpent, only to die from its poison. For 10 points, name this event marking the end of the world in Norse mythology. ANSWER: Ragnarök [prompt on Gotterdammerung; prompt on end of the world]
19. This man was targeted in the Conway Cabal, which was partially due to his losses at Germantown and Brandywine. He declared political parties to be a "frightful despotism" and warned against engaging in "entangling alliances" in his Farewell Address, after which his former Vice President John Adams became President. For 10 points, name this leader of the Continental Army who became the first President of the United States.
ANSWER: George Washington
20. The hormone ethylene causes the abscission of these structures, which have palisade and spongy mesophyll layers. Stomata allow these structures to obtain carbon dioxide, and in monocots, they generally have parallel veins. Tendrils and spines are modified types of these structures that usually consist of a petiole and blade. For 10 points, name these flat, green plant structures, the major site of photosynthesis.
ANSWER: leaf [or leaves]
Extra. This man was killed by a crossbow bolt while besieging the castle Charlus-Chabrol. After the departure of Philip Augustus of France, this man led the Christian armies in the Third Crusade, during which he achieved peace with Saladin. He was succeeded by his brother John. For 10 points, name this 12th-century King of England known by an epithet signifying his bravery.
ANSWER: Richard I of England [or Richard the Lionhearted; or Richard Coeur de Lion; prompt on Richard]

## 2012 CMST - Round 4

## Bonuses

1. In The Tale of Tsar Saltan, this piece plays as Prince Gvidon is transformed into an insect. For 10 points each:
[10] Name this piece, famous for its runs of chromatic sixteenth-notes.
ANSWER: The Flight of the Bumblebee
[10] This composer of Flight of the Bumblebee was a member of the Mighty Handful. ANSWER: Nikolai Rimsky-Korsakov
[10] The Mighty Handful, which also included Alexander Borodin and Mily Balakirev, was a group of nationalist composers from this nation.
ANSWER: Russia
2. This Christian denomination was founded by Mary Baker Eddy in 1879. For 10 points each:
[10] Name this church, which maintains that creation is entirely spiritual and that matter does not exist. Most members of this church refuse medical help for disease.
ANSWER: Church of Christ, Scientist [accept Christian Science; accept Christian Scientists; do not accept or prompt on "Scientology"]
[10] Eddy rejected the teaching of the Holy Trinity, saying that it suggested this practice of worshipping multiple gods.
ANSWER: polytheism
[10] Sunday services at the Church of Christ, Scientist feature readings from Mary Baker Eddy's Science and Health with Keys to the Scriptures and this book, divided into Old and New Testaments.
ANSWER: The Bible
3. It contains Bellatrix and Betelgeuse. For 10 points each:
[10] Name this constellation nicknamed The Hunter.
ANSWER: Orion
[10] Within Orion, the three stars Alnitak, Alnilam, and Mintaka form an asterism known as this piece of clothing.
ANSWER: Orion's Belt
[10] Even though this star at Orion's left foot is labeled Beta Orionis, it usually is the brightest star in the constellation.
ANSWER: Rigel
4. In 1453 , the capital of this empire fell to Ottoman forces under Mehmed II. For 10 points each:
[10] Name this empire that split from the Western Roman Empire.
ANSWER: Byzantine Empire [accept Eastern Roman Empire]
[10] The Byzantine capital was this city, which was renamed Istanbul after it fell to the Ottomans. ANSWER: Constantinople [prompt on Byzantium]
[10] The Byzantine Empire was once ruled by this husband of Theodora, who sent Belisarius (bell-ih-SARE-ee-us) to put down the Nika (NEE-kah) Riots and created a namesake law code.
ANSWER: Justinian I [or Justinian the Great]

## 2012 CMST - Round 4

5. This location was based on the real-life Ashdown Forest and sketched by Punch illustrator Ernest Shepard. For 10 points each:
[10] Name this fictional location whose inhabitants include the mysterious Heffalump and the boy Christopher Robin.
ANSWER: Hundred Acre Wood
[10] This "bear of very little brain" lives in the Hundred Acre Wood and, despite exercising every morning, always has a hankering for honey.
ANSWER: Winnie the Pooh [or Pooh Bear]
[10] This author created Winnie the Pooh and the Hundred Acre Wood.
ANSWER: A(lan) A(lexander) Milne
6. This currency was established in 1992 by the Treaty of Maastricht. For 10 points each; [10] Name this currency, now used by 17 nations including Spain, Italy, and Ireland.

## ANSWER: euro

[10] This country, the largest economy in the European Union, previously used the Mark as its currency before switching to the Euro.
ANSWER: Federal Republic of Germany [or Bundesrepublik Deutschland]
[10] The Euro has been threatened by the potential default of this country on its debts. It replaced Prime Minister George Papandreo with Lucas Papademos in response to riots.
ANSWER: Greece [accept The Hellenic Republic]
7. Cardinal Richelieu was regent for one leader of this country. For 10 points each:
[10] Name this European country whose 17th-century kings included Henry IV and Louis XIII. ANSWER: France
[10] This other 17th-century French king made the palace of Versailles the center of the government. He was called the "Sun King."
ANSWER: Louis XIV [prompt on Louis]
[10] Henry IV, Louis XIII, and Louis XIV were all members of this French royal house that succeeded the House of Valois.
ANSWER: House of Bourbon [or Bourbons]
8. This is a computation bonus. For 10 points each, answer the following probability questions. Give all of your answers as fractions in simplest form.
[10] If you flip two coins, what is the probability of getting one head and one tail in either order?
ANSWER: $\underline{\mathbf{1 / 2}}$
[10] If you flip three coins, what is the probability that all three come up heads?
ANSWER: $\mathbf{1 / 8}$
[10] If you roll two standard dice, what is the probability of getting a sum of 12 ?
ANSWER: $1 / 36$
9. Aristotle wrote that this type of literature uses pity and fear to achieve catharsis. For 10 points each: [10] Name this type of work that many people associate with sad endings.
ANSWER: tragedy
[10] This Shakespeare tragedy about a Danish prince who is the nephew of Claudius contains the line, "To be or not to be."
ANSWER: The Tragical History of Hamlet, Prince of Denmark
[10] Both Christopher Marlowe and Johann Wolfgang von Goethe wrote tragic plays about this man who makes a deal with Mephistopheles.
ANSWER: Doctor Faustus

## 2012 CMST - Round 4

10. Other than bromine, this is the only element that is a liquid at room temperature. For 10 points each: [10] Name this element traditionally used in thermometers with chemical symbol Hg.
ANSWER: mercury
[10] While combinations of mercury with other metals are often called amalgams, this is the general term for any combination of metals.
ANSWER: alloy
[10] A common source of mercury is this mineral made of mercury sulfide.
ANSWER: cinnabar
11. A follow-up case to this Supreme Court decision ordered states to enforce this decision "with all deliberate speed." For 10 points each:
[10] What landmark 1954 civil rights case outlawed segregation in public schools?
ANSWER: Brown v. Board of Education of Topeka [accept Brown v. Board of Ed(ucation)]
[10] This lawyer successfully argued Brown before the Supreme Court. He became the first African-
American justice on the Supreme Court in 1967.
ANSWER: Thurgood Marshall
[10] Brown overturned this 1896 case, which held that segregation in schools was legal and established the doctrine of "separate but equal."
ANSWER: Plessy v. Ferguson
12. In this book, Stephen Kumalo travels to Johannesburg only to learn that his son Absalom accidentally killed Arthur Jarvis during a robbery. For 10 points each:
[10] Name this novel by Alan Paton.
ANSWER: Cry, the Beloved Country
[10] The book draws attention to racial injustices in what country?
ANSWER: Republic of South Africa
[10] Stephen Kumalo has this profession. A real-life member of this vocation was John Donne, and it is also the day job of G.K. Chesterton's detective, Father Brown.
ANSWER: priest [or minister; or other obvious equivalents; accept Anglican priest as both Kumalo and Donne were Anglican; accept Roman Catholic priest as Brown was Catholic]
13. These factors include temperature, light, and water. For 10 points each:
[10] This term describes the nonliving factors that influence the types of species found in an environment. ANSWER: abiotic factors
[10] Temperature and precipitation are the abiotic factors that determine the size of these major ecosystems like the desert and tropical rainforest.
ANSWER: biome
[10] Located south of the tundra, this largest land biome features heavy snowfall in winter and trees like pine, spruce, and fir.
ANSWER: taiga [or northern coniferous forest]
14. In the 2011 NLDS, two former teammates faced off in a decisive Game 5 . For 10 points each:
[10] The Cardinals sent this man, their ace, to the mound. He won the 2005 Cy Young Award and pitched a complete game shutout to send the Cardinals to the NLCS.
ANSWER: Christopher John Carpenter
[10] Philadelphia sent this 2010 Cy Young Award winner to the mound. He pitched the second no-hitter in postseason history in 2010.
ANSWER: Harry Leroy "Roy" Halladay III [accept "Doc" Halladay]
[10] Carpenter and Halladay were teammates while playing for this Canadian baseball franchise. This franchise won two straight World Series titles in 1992-1993.
ANSWER: Toronto Blue Jays [accept either underlined part]

## 2012 CMST - Round 4

15. For 10 points each, answer the following about Paul Gauguin.
[10] Gauguin depicted Christ in this color in a work that shows him hanging from the crucifix.
ANSWER: yellow [or Yellow Christ]
[10] The Gauguin work Vision After the Sermon is subtitled after this Biblical figure "Wrestling with the Angel."
ANSWER: Jacob
[10] This friend of Gauguin spent nine weeks painting in a house in Arles with him before running away one evening and severing part of his ear.
ANSWER: Vincent van Gogh
16. This novel features Billy Bones, who once served Captain Flint. For 10 points each:
[10] Name this 19th century novel narrated by Jim Hawkins.
ANSWER: Treasure Island
[10] Treasure Island was written by this Scottish author.
ANSWER: Robert Louis Stevenson
[10] Stevenson also wrote this novel featuring the devious Uncle Ebenezer. It is narrated by David Balfour, and its sequel is Catriona.
ANSWER: Kidnapped
17. This city was the projected destination of a 1965 protest march that began in Selma. For 10 points each:
[10] Name this Alabama capital, the site of a bus boycott that began in 1955.
ANSWER: Montgomery
[10] One organizer of the Montgomery bus boycott was this man, who founded the Southern Christian Leadership Conference before he was assassinated in Memphis in 1968.
ANSWER: Martin Luther King Jr. [accept MLK]
[10] Martin Luther King's 1963 speech at the Lincoln Memorial is usually known by this four-word title, which precedes his call for the nation to "live out the true meaning" of the Declaration of Independence. ANSWER: "I Have A Dream"
18. He used an adamantine sickle to castrate his father, Uranus. For 10 points each:
[10] What Titan and husband of Rhea was later overthrown by his own son, Zeus?
ANSWER: Cronus [accept Kronos]
[10] This other Titan was tricked into completing Heracles' eleventh labor. He is more famous for supporting the heavens on his shoulders.
ANSWER: Atlas
[10] This Titan was punished for giving humans fire by being chained to a rock and having his liver picked at by a vulture during the day, only for it to regrow overnight and the process to repeat the following day.
ANSWER: Prometheus
19. They include rectangles, squares, and trapezoids. For 10 points each:
[10] Give this term for a four-sided polygon.
ANSWER: quadrilateral [or tetragon; prompt on 4-gon]
[10] This is the term for any quadrilateral that has two pairs of opposite congruent angles.
ANSWER: parallelogram
[10] This term denotes any parallelogram with four congruent sides.
ANSWER: rhombus

## 2012 CMST - Round 4

20. For 10 points each, name these U.S. state capitals.
[10] The most populous state capital in the United States is this capital of Arizona.
ANSWER: Phoenix
[10] The least populous capital city in the country is this capital of Vermont.
ANSWER: Montpelier
[10] Name either current state capital that once served as a capital of the Confederate States of America. ANSWER: Montgomery, Alabama or Richmond, Virginia

Extra. On July 8, 2011, NASA launched STS-135, the final mission of a space program lasting 30 years. For 10 points each;
[10] Identify this NASA program, which suffered the catastrophic loss of its Challenger and Columbia vehicles on earlier missions.
ANSWER: Space Shuttle
[10] The final space shuttle mission was flown by this vehicle, now on permanent display at the Kennedy Space Center Vistor Complex.
ANSWER: Space Shuttle Atlantis
[10] On the final mission of Atlantis, a test using this common consumer product was performed. It had a preloaded application designed to check radiation levels, altitude, and orbital location.
ANSWER: iPhone [or smartphone]

