# 2010 Collaborative Middle School Tournament Round 3 

## Tossups

1. This modern-day country gained its independence with the Tydings-McDuffie Act. In World War II, the Battle of Bataan was fought over this land, and an American loss at that battle prompted Douglas MacArthur to say, "I Shall Return." It was once ruled by Ferdinand Marcos, whose wife Imelda was known for her collection of shoes. For 10 points, name this country in which the Battle of Manila Bay took place.
ANSWER: Republic of the Philippines
2. In this novel, Bonnie Blue dies while trying to jump a fence with her horse. Its protagonist stays in love with the owner of the Twelve Oaks plantation, Ashley Wilkes, even while she is married to the Confederate blockade runner Rhett Butler. It largely takes place on the plantation Tara. For 10 points, name this Margaret Mitchell novel about the Southern beauty Scarlett O'Hara.
ANSWER: $\underline{\text { Gone With the Wind }}$
3. Instruments in this family represent the fossils in Camille Saint-Saens' Carnival of the Animals, while they were also used rhythmically in his Danse Macabre ("DONSE muh-COB-ruh"). A roll on an instrument from this family, followed by a chorus, opens Karl Orff's O Fortuna. For 10 points, name this family of instruments often played with mallets that includes the triangle and every type of drum and keyboard instrument.
ANSWER: percussion
4. Alternatives to it include the Knoop test, the Vickers test, and measurement with a sclerometer ("sclair-AH-meh-tuhr"). Although decimal values are allowed, it is more common to say that an object's value is between that of two reference materials based on the scratch test. Corundum has a value of nine and talc has a value of one on, for 10 points, what scale that measures a mineral's hardness?
ANSWER: Mohs scale
5. Otus and Ephialtes ("eff-ee-ALL-tees") tried to capture this goddess, but ended up slaying each other after she transformed into a deer. She slew the daughters of Niobe ("ny-OH-bee") in response to a slight against her mother. Actaeon ("ack-TAY-on") caught a glimpse of this deity bathing, for which he was turned into a stag and mauled by his own dogs. For 10 points, name this twin of Apollo, the Greek goddess of the hunt.

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

6. This structure experiences only compression, with no shear, and is therefore an inverted catenary curve. It is made from a series of tapering equilateral triangles, and visitors can ride a sloping tram system to its top. This largest building in the Jefferson National Expansion Memorial was designed by Eero Saarinen ("AIR-oh SAHR-in-en"). For 10 points, name this large curved structure located in St. Louis, Missouri. ANSWER: The Gateway Arch [prompt on St. Louis Arch or equivalents before "St. Louis"]
7. Bernoulli is credited with the discovery of this constant when he attempted to find the value of the limit as $n$ approaches infinity of the quantity one plus one over $n$ to the nth power. This constant is used when finding interest compounded continuously and when modeling exponential growth, and it is the base of the natural logarithm. For 10 points, name this constant, approximately equal to 2.71828 .


The 2010 Collaborative Middle School Tournament was overseen by Andy Watkins and written by Nick Bergeon, Matt Bollinger, Matthew Dirks, Zach Foster, David Garb, Jeff Hoppes, Sandy Huang, Idris Kahloon, Tanay Kothari, Kay Li, Charles Martin, Trygve Meade, Aidan Mehigan, Charlie Rosenthal, Donald Taylor, and Dwight Wynne. Jeff Hoppes, Jeff Price, Donald Taylor, and Dwight Wynne served as the primary editors and proofreaders.

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8. One writer in this language wrote the collection "Twenty Love Poems and a Song of Despair." Another user of this language published the short story collections The Aleph and Ficciones. Love in the Time of Cholera and One Hundred Years of Solitude were also written in this language. For 10 points, name this language used by Latin American writers such as Pablo Neruda, Jorge Luis Borges, and Gabriel García Márquez.
ANSWER: Spanish [or Español]
9. It reportedly began with the false accusations of a wigmaker's apprentice, which supposedly led a crowd to throw snowballs. The first person to die in this incident was Crispus Attucks, and in total five people died out of the three hundred estimated to be in the crowd surrounding Captain Thomas Preston's British troops. For 10 points, identify this 1770 incident named for the New England city where it occurred.
ANSWER: Boston Massacre [accept reasonable equivalents]
10. This macromolecule ("MACK-row-MOLL-eh-kyool") can be artificially copied using the polymerase ("puh-LIM-er-ase") chain reaction. Okazaki fragments can form on its lagging strand during its replication. Chargaff proposed rules governing the pairing of this macromolecule's bases, adenine, thymine, guanine, and cytosine. Watson and Crick discovered its double helix shape. For 10 points, name this nucleic acid, the human genetic material.
ANSWER: DNA [or deoxyribonucleic ("dee-OX-ee-RYE-bo-nu-CLAY-ic") acid]
11. At the beginning of this novel, the explorer Robert Walton watches a huge figure ride a sledge pulled by dogs across the Arctic Circle. The protagonist's brother William, friend Henry Clerval and wife Elizabeth Lavenza are all strangled to death by a creature that protagonist vows to destroy. For 10 points, name this Mary Shelley novel about the mad scientist Victor and the monster he creates.
ANSWER: Frankenstein
12. This conflict saw a battle for Kunduz ("CUN-dooz"), which saw cooperation between U.S. and German forces. The British "Operation Herrick" and American "Operation Enduring Freedom" led to a quick ousting of the Taliban regime, but Stanley McChrystal recently stated an increase of 500,000 troops would be needed to continue this war. For 10 points, name this current war fought in a country bordering Pakistan.
ANSWER: War in Afghanistan [accept War against the Taliban before mentioned; accept other obvious equivalents]
13. This mountain range includes the Vilcabamba ("VEEL-cuh-BOM-buh") sub-range and contains a plateau called the altiplano ("ALL-tee-PLAN-oh"). It is home to the tallest volcano on Earth, Ojos ("OHhoess") del Salado, and the highest peak in the Western Hemisphere, Aconcagua ("AH-con-CAH-gwa"). Llamas were domesticated in, for 10 points, what longest mountain range on Earth, located in western South America?
ANSWER: Andes Mountains
14. In the movie Cats \& Dogs, he provided the voice for Lou the Beagle. In another movie, he and his sister, played by Reese Witherspoon, are transported to the 1950s sitcom Pleasantville. He played a Depression-era jockey who somehow finds success on an undersized horse in Seabiscuit. For 10 points, name this actor who starred as Peter Parker in the recent Spiderman movies.
ANSWER: Tobey Maguire

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15. The philosophy of nullification was developed to oppose this form of government. The Ninth and Tenth Amendments specifically create this type of government, which is defined as a power-sharing arrangement between national and state governments. For 10 points, name this type of government after which a political party including John Adams was named.
ANSWER: federalism [accept word forms such as federalist]
16. When air resistance exactly counteracts this force, an object has reached terminal velocity. The escape velocity is the minimum speed needed to overcome the effects of this force. On Earth, this force acts to accelerate a body at nine point eight meters per second squared. For 10 points, name this force responsible for keeping objects on the ground.
ANSWER: gravity [or gravitational force]
17. This man was born in the Year of the Elephant and won the battle of Badr ("BAH-dur"). He also signed the Treaty of Hudaybiya ("WHO-day-BEE-yah") with the Qurayshi ("koo-RAY-shee"). The sayings of this husband of Khadija ("kah-DEE-zhah") are collected in the Hadith ("hah-DEETH"). In a cave on Mount Hira, he was ordered by the angel Gabriel to read a scroll. This father of Ali destroyed the idols around the Ka'aba ("KAA-bah") after conquering Mecca in 630 . For 10 points, name this greatest prophet of Islam.
ANSWER: Mohammad
18. In one story by these authors, a tailor kills seven flies hovering over his jam and boasts that he killed "seven in one blow." In another story, a dog, cat, donkey, and rooster drive away robbers. They wrote about a woman who bribes the title figure to weave straw into gold. For 10 points, name the German brothers who wrote "The Brave Little Tailor," "The Bremen Town Musicians," "Rumpelstiltskin," and other fairy tales.
ANSWER: Brothers Grimm [or Jakob and Wilhelm Grimm]
19. The density of objects drops to almost zero at this region's namesake cliff. Most of the objects found here are called cubewanos ("KYOO-bee-WAHN-ohs"). The Oort cloud ends at the beginning of this region's elliptic. For 10 points, identify this area at the edge of the solar system that houses thousands of short period comets, Eris, and Pluto.
ANSWER: Edgeworth-Kuiper belt [or Edgeworth-Kuiper Disc]
20. The carrack Mary Rose sank during the reign of this ruler, who ordered Thomas Cromwell to dissolve the monasteries. Thomas Cranmer was Archbishop of Canterbury under this ruler, who became the supreme head of the Protestant Church of England. After his marriage to a Spanish princess ended, he married Anne Boleyn, but had Anne beheaded in 1536. For 10 points, name this Tudor king with an eventual total of six wives.
ANSWER: Henry VIII [prompt on Henry or Henry Tudor]
21. This country was ruled by Fulgencio ("fool-HEN-see-oh") Batista, who was deposed in 1959. It was the site of the Rough Riders' victory at San Juan Hill. The only U.S. territory on this island is a naval base at Guantanamo ("GWAHN-TAHN-uh-mo") Bay. Soviet missiles discovered here in 1962 led to a namesake "crisis." For 10 points, name this island country once ruled by Fidel Castro.
ANSWER: Republic of Cuba [or Republica de Cuba]

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## Bonuses

1. This book is a collection of stories told to a sultan. For 10 points each:
[10] Name these stories which are told by Scheherezade ("shuh-HAIR-uh-zod"), which make each night for the sultan different so that she won't be executed.
ANSWER: Arabian Nights [or The Thousand and One Nights; accept other reasonable equivalents]
[10] One of Scheherezade's stories is about this man's confrontation with forty thieves.
ANSWER: Ali Baba
[10] Another story in the collection is about the seven voyages of this sailor.
ANSWER: Sinbad
2. For 10 points each, answer these questions about the geography of a New England state:
[10] This easternmost state in the Continental United States is home to cities such as Bangor, Lewiston, and the capital Augusta.
ANSWER: Maine
[10] Maine is home to this national park, which contains Mount Desert Island and Cadillac Mountain. ANSWER: Acadia National Park
[10] Maine also contains part of this mountain range, which stretches from Alabama to Canada.
ANSWER: Appalachian Mountains
3. This law states that for every action, there is an equal and opposite reaction. For 10 points each:
[10] Name this law of motion named after a British scientist.
ANSWER: Newton's Third Law of Motion
[10] Newton's Second Law says that force is equal to this quantity times acceleration. This quantity is measured in grams.
ANSWER: mass
[10] Newton's First Law governs this concept, defined as the tendency of an object to continue moving at the same speed in the same direction unless acted on by an outside force.
ANSWER: inertia
4. This nation's current president is Jacob Zuma. For 10 points each:
[10] What country used a racial separation system called apartheid ("uh-PAR-tide") in the 20th century? ANSWER: Republic of South Africa
[10] The first non-white president of South Africa was this former political prisoner who took office in 1994.

ANSWER: Nelson Mandela
[10] Mandela is a leader of this political party, which has governed South Africa for the last 15 years. ANSWER: African National Congress [accept ANC]
5. This four-member group was unusual in that it did not contain a bass player. For 10 points each: [10] Name this band behind hits such as "Riders on the Storm" and "L.A. Woman," which ended live shows with the song "The End."
ANSWER: The Doors
[10] The Doors were fronted by this singer, who died in Paris in 1971.
ANSWER: James Douglas "Jim" Morrison
[10] The Doors were the subject of national controversy when Morrison left in the line "Girl we couldn't get much higher" during a performance of this song on The Ed Sullivan Show.
ANSWER: "Light My Fire"

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6. This work includes twenty-four stories plus a number of prologues. For 10 points each:
[10] Name this Middle English collection of stories told by of a group of pilgrims on their way to a cathedral to see the relics of St. Thomas Becket. Characters include the Nun's Priest, the Knight, and the Friar.
ANSWER: The Canterbury Tales
[10] This fourteenth-century English author of Troilus and Criseyde and The Parliament of Foules ("fouls") created The Canterbury Tales. He was heavily influenced by Boccaccio ("bo-COTCH-ee-oh"). ANSWER: Geoffrey Chaucer
[10] This character's tale details a knight's quest to find out what women really want. Apparently, the answer is sovereignty over their husbands.
ANSWER: The Wife of Bath
7. For 10 points each, name these things about circles:
[10] This line extends from the center of the circle to the perimeter of the circle. It is half the length of the diameter.
ANSWER: radius [or radii]
[10] This line touches the circle at exactly one point. This word also names a trigonometric function that equals sine over cosine.
ANSWER: tangents
[10] Unlike tangents, these lines touch the circle at two points.
ANSWER: secants [or chords]
8. Ozan Kilinc ("KILL-inch") was jailed by a court in this country for publishing articles sympathetic to a banned party. For 10 points each:
[10] Name this country, where insulting the country or the government is illegal under Article 301.
ANSWER: Republic of Turkey [or Turkye Cumhuriyeti]
[10] Ozan oversaw publication of a dozen articles supportive of the PKK, a party representing this ethnicity. This ethnic group was also the target of the Anfal ("ON-fall") campaign ordered by "Chemical Ali."
ANSWER: Kurds
[10] Article 301 is seen as a major stumbling block to Turkey's attempts to join this continental organization, which has a six-month rotating presidency which was headed by Spain at the beginning of the calendar year.
ANSWER: European Union
9. This figure's name translates as either "Exalted" or "Father of All Nations." For 10 points each: [10] Name this biblical figure who is ordered by God to sacrifice his son Isaac.
ANSWER: Abraham [accept Abram, Avraham, or Avram]
[10] The wife of Abraham, she was barren, but God promised that she would be a mother of many nations. She doubted this, and gave her maidservant Hagar to her husband.
ANSWER: Sarai [accept Sarah]
[10] This nephew of Abraham was warned by angels about the pending doom for the city of Sodom. After looking back at the city after it was destroyed, God turned his wife into a pillar of salt.
ANSWER: Lot

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10. For 10 points each, identify the following about Jupiter.
[10] This anticyclonic ("ANN-tie-sigh-CLONE-ick") storm on Jupiter is approximately 40,000 kilometers by 14,000 kilometers. Currently shrinking, the storm is still large enough to fit 2 or 3 Earths into it.

## ANSWER: Great Red Spot

[10] Io, Europa, Ganymede, and Callisto are the four moons discovered by this man in 1610. These discoveries were made with the help of improvements he made to the telescope.
ANSWER: Galileo Galilei
[10] These 1979 space probes were the third and fourth to fly by Jupiter. They improved our understanding of the Galilean moons, discovered the Great Red Spot was anticyclonic, and discovered Jupiter's rings.
ANSWER: Voyager I and II
11. Its sovereignty was established by the Lateran Treaty of 1929. For 10 points each:
[10] Name this microstate on the west bank of the Tiber River.
ANSWER: Vatican City
[10] The Vatican is led by this official, also the bishop of Rome and head of the Catholic Church ANSWER: the pope
[10] The current pope is this man, born Joseph Ratzinger, the first German to hold the office since 1057. ANSWER: Benedict XVI [prompt on Benedict]
12. This play ends with the funeral of Willy Loman, and that man's funeral is only attended by Happy, Linda, Biff, Charley and Bernard. For 10 points each:
[10] Name this work whose title represents the end of the main character's American dream.
ANSWER: Death of a Salesman
[10] This author of Death of a Salesman and A View from the Bridge was married to Marilyn Monroe. ANSWER: Arthur Asher Miller
[10] This other Arthur Miller play sees a character crushed by rocks after refusing to admit being a witch during the Salem Witch Trials.
ANSWER: The Crucible
13. For 10 points, answer these questions about waves:
[10] This massive type of wave, Japanese for "harbor wave", is generally caused by underwater earthquakes or volcano eruptions. One notably hit Southeast Asia in 2004.
ANSWER: tsunami ("soo-NAHM-ee") [accept seismic sea wave; do not accept or prompt on "tidal wave"]
[10] Oscillations in this area of underwater land cause water to "run up," causing most of the damage done by tsunamis.
ANSWER: continental shelf
[10] Also known as a capillary wave, this type of wave's movement is determined by surface tension. ANSWER: ripples
14. For 10 points each, name these Cabinet departments:
[10] This department currently headed by Hillary Clinton is responsible for American diplomats worldwide.
ANSWER: State Department [or Department of State]
[10] This department is responsible for implementing the No Child Left Behind Act and is currently headed by Arne Duncan.
ANSWER: Department of Education [or Education Department]
[10] This most recent department to be added to the Cabinet is currently led by Janet Napolitano. ANSWER: Department of Homeland Security [or Homeland Security Department]

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15. Every nine years, 7 male and 7 female children were sent here as a tribute for the Minotaur. For 10 points each:
[10] Name this maze on Crete, the place where Ariadne ("AIR-ee-AD-nee") led Theseus to slay the Minotaur.
ANSWER: The Labyrinth
[10] This man designed the Labyrinth. He is also notable for creating a set of wax wings and having to watch his son Icarus fall from the sky when he got too close to the sun.
ANSWER: Daedalus
[10] This King of Crete is the man who commissioned the Labyrinth. He tricked Daedalus into revealing himself by challenging him to thread a piece of string through a spiral seashell.
ANSWER: Minos
16. This character sings his name repeatedly at ever-increasing speeds in the aria "Largo al Factotum."

For 10 points each:
[10] Name this barber of Seville, who gets married in a Mozart opera.
ANSWER: Figaro
[10] The aria "Largo al Factotum" is from The Barber of Seville, an opera by this Italian composer. The overture to another of his operas was featured as the theme of the Lone Ranger.
ANSWER: Gioachino Rossini
[10] This is that aforementioned opera by Rossini, whose title Swiss patriot is forced to shoot an apple off the top of his son's head.
ANSWER: William Tell [or Guillaume ("ghee-YOME") Tell]
17. For 10 points each, give these terms from genetics.
[10] These different versions of a single gene determine the physical trait associated with that gene. ANSWER: allele ("uh-LEEL")
[10] This is the term for an allele that will always manifest itself in an organism's phenotype, even if other, recessive alleles are present.
ANSWER: dominant
[10] These "squares" are used to predict the genotypes and phenotypes of the children of a cross between two parent organisms.
ANSWER: Punnett squares
18. It was founded in 1607 and named for the first Stuart king of England. For 10 points each:
[10] John Smith was a leader of the colonists who built what first English settlement in Virginia?
ANSWER: Jamestown
[10] According to tradition, Smith's life was saved by this Native American princess, a daughter of Powhatan.
ANSWER: Pocahontas
[10] Pocahontas married not John Smith, but John Rolfe, a planter who in 1612 introduced the West Indian variety of this profitable crop into the Virginia settlement.
ANSWER: tobacco
19. This land is ruled by Aslan and temporarily ruled by the White Witch. For 10 points each:
[10] Name this fictional country inhabited by Mr. Tumnus.
ANSWER: Narnia
[10] The chronicles of Narnia were written by this author of The Screwtape Letters.
ANSWER: C(live) S(taples) Lewis
[10] In The Lion, the Witch, and the Wardrobe, Susan, Peter, Edmund, and Lucy share this last name. ANSWER: Pevensie

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20. It is a view from the St. Rémy asylum. For 10 points each:
[10] Name this rendering of a nocturnal scene in which a blue sky swirls, the moon is bright in the upper right corner, and a large cypress tree looms in the foreground above a town.
ANSWER: The Starry Night [or De Sterrennacht]
[10] The Starry Night is a work of this Dutch post-Impressionist, painter of such works as The Potato Eaters, Irises, and a series of sunflowers, in addition to Self-Portrait with Bandaged Ear.
ANSWER: Vincent Willem van Gogh
[10] This other van Gogh work depicts a pool table in the title establishment. Several patrons sit at tables, a green door is visible in the background, and the walls are bright orange. Four overhanging lamps light the yellow floor.
ANSWER: The Night Café [or Le Café de Nuit]
21. This man is the namesake of a coordinate system in which each point in the plane is represented as an ordered pair of the distance from the $y$ - and $x$-axes, respectively. For 10 points each:
[10] Name this seventeenth-century French mathematician and philosopher.
ANSWER: Rene Descartes
[10] Descartes may be best known for the statement "I think, therefore I am." That statement is a translation of the original Latin phrase. Give the three-word Latin phrase that translates to "I think, therefore I am."
ANSWER: Cogito ergo sum
[10] In Cartesian coordinates, the second, or $y$, coordinate of an ordered pair is the ordinate; this term denotes the first, or x , coordinate. It is also sometimes used to refer to the x -axis itself.
ANSWER: abscissa ("ab-SISS-uh")
