

# 2013 Collaborative Middle School Tournament

## Round 3

### Tossups

1. **One character in this story is sold by her father and is partially deaf. The protagonist reveals himself to Princess Pea and is then sentenced to death in the dungeon. Spoons, bowls, kettles, and soup are outlawed after the queen dies of fright when a (\*) rat falls in her food.** For 10 points, name this 2004 novel which became a 2008 film, a Newbery Medal winner by Kate DiCamillo.

ANSWER: *The Tale of Despereaux*

2. **This woman allied with Walter White to push the failed Costigan-Wagner anti-lynching bill, but the President refused to publicly endorse it. She and Wendell Wilkie were the first honorary chairpersons of Freedom House. She arranged Marian Anderson's concert at the Lincoln Memorial. As a delegate to the UN from 1945-1952, she also helped draft the Declaration of Human Rights.** (\*) For 10 points, name this First Lady, the wife of Franklin D. Roosevelt.

ANSWER: (Anna) Eleanor Roosevelt [prompt on "Roosevelt"]

3. **One former player for this team was the 1986 NFL MVP as well as the defensive player of the year, but that player may be more famous for the hit that broke Joe Theismann's leg. Lawrence Taylor played for this team that also defeated a (\*) Tom Brady-led Patriots team to win the 2012 Super Bowl. Hakeem Nicks and Victor Cruz play on, for 10 points, what NFL team that features Eli Manning at quarterback?**

ANSWER: New York Giants [prompt on "New York"]

4. **One structure in this organ, the Bowman's capsule, is divided into several layers including the visceral and parietal layers. The adrenal glands are located just above this organ, whose loop of Henle [HEN-lee] helps concentrate (\*) urine.** Dialysis is used as an alternative when this organ fails. For 10 points, name these organs composed of nephrons whose main function is to filter blood and produce urine.

ANSWER: kidneys

5. **In this work, Unferth boasts about beating the protagonist in a swimming contest. As his dying action, the protagonist gives Wiglaf a royal gold collar. Partly taking place in the mead hall Heorot, this work presents Hrothgar, the king of the Danes, as helpless in battling a (\*) monster who comes nightly to eat warriors.** For 10 points, name this Old English epic poem in which the title hero kills Grendel and Grendel's mother.

ANSWER: Beowulf

6. **At the beginning of this country's fight for independence, Carlos Manuel de Céspedes freed his slaves, and they fought together in the Ten Years' War. Its Revolt of the Sergeants was reversed by the 26th of July Movement, which ended the rule of Fulgencio Batista. Che Guevara helped move this Caribbean country to (\*) Communism in 1959.** For 10 points, name this nation that has been led by Raul and Fidel Castro.

ANSWER: Cuba

7. **The IBM Model M is a particularly highly regarded example of this type of device. They sometimes use the Dvorak layout, but the most popular arrangement for them was designed by Christopher Sholes and is deliberately inefficient to avoid (\*) jamming.** For 10 points, name these devices that often use the QWERTY [KWUR-tee] layout, and are used to enter numbers and letters into a computer.

ANSWER: (computer or typewriter) keyboards

The 2013 Collaborative Middle School Tournament was written and edited by Ankit Aggarwal, the Bainbridge Academic Team, Scott Blish, Kristin Burns, Ben Chametzky, Aaron Dos Remedios, Michael Falk, Brad Fischer, Jonah Greenthal, Abid Haseeb, Kathy Hempel, Matthew Hill, Jeff Hoppes, Mike Laudermitth, Colin McNamara, Michael Menkhus, Jacob O'Rourke, Zach Pace, Aakash Patel, Jeff Price, David Reinstein, David Riley, Ryan Rosenberg, Ethan Russo, Ezra Serrins, David Shoemaker, Adam Sperber, Kristin Strey, Brittany Trang, Tristan Willey, Nolan Winkler, Ben Zhang, and possibly some other people.

## 2013 CMST - Round 3

8. In Jainism, this object's central point is Mount Meru. In Chinese mythology, this object is the lower half of a cosmic egg split by Pangu, while in ancient Egypt the original form of this object was the primordial (\*) mound. This region will be reborn from a massive flood after Rangarok. For 10 points, name this planet subjected to a massive flood that Noah escaped.

ANSWER: Earth [accept equivalents like world or land before "planet" is mentioned]

9. This work includes the aria "Un bel di," describing a beautiful day when a ship will arrive with the singer's husband after three years away. Unfortunately, the consul Sharpless informs the title character that her husband has married Kate, an American woman. Lieutenant (\*) Pinkerton abandons the title character of, for 10 points, what Giacomo Puccini opera about Cio-Cio San, a Japanese woman known by an insect nickname?

ANSWER: Madame Butterfly [or Madama butterfly]

10. This geographical feature has its lowest point at Bentley Trench. A lake here lies under Vostok Station. Mt. Erebus is found on Ross Island off its coast, between Marie Byrd and Victoria lands. The Sentinel Range of the Ellsworth Mountains contains its highest peak, Vinson Massif, located on the Ronne (\*) Ice Shelf. Getting only 5-10 inches of precipitation a year, it is considered a desert. For 10 points, identify this southernmost continent that contains the icy South Pole.

ANSWER: Antarctica

11. The announcement of this object's existence was hinted at by a shadow on invitations to an event at the Yerba Buena Center for the Arts. Disputes over strict quality control demands threatened production at the Foxconn facility that manufactures it. This device comes with EarPods and introduced the (\*) Lightning connector, as well as a longer screen than its predecessor, the 4S. For 10 points, name this latest version of Apple's cell phone product.

ANSWER: iPhone 5 [prompt on "iPhone"]

12. Lee DeForest is considered one of the inventors of this technique in the early 1900s when he was working on space telegraphy. This form of radio communication involves the transmission of sinusoidal waves that have varying strength over time. Most early commercial radios used this technique due to its simplicity. (\*) For 10 points, name this radio transmission methodology contrasted with frequency modulation.

ANSWER: amplitude modulation or AM radio [prompt on "radio" or similar answers]

13. This king was in power during the Affair of the Diamond Necklace. His advisor Maurepas appointed Turgot as finance minister, and he was later served by the author of the *compte rendu*, Jacques Necker. When his ministers were unable to raise enough revenue, this king was forced to call the (\*) Estates-General. For 10 points, name this husband of Marie Antoinette deposed in the French Revolution.

ANSWER: Louis XVI ["the 16th"] of France

14. In one novel by this author, Robert Cohn and Jake Barnes both pursue Lady Brett Ashley as they travel through Spain. In another novel by this author, Catherine loves an American soldier fighting in World War I, *Frederic Henry*. In one of this man's novellas, (\*) Santiago goes eighty-four days without catching a fish. For 10 points, name this author of *The Sun Also Rises*, *A Farewell to Arms*, and *The Old Man and the Sea*.

ANSWER: Ernest Hemingway

15. These objects have only three externally verifiable properties: mass, charge, and angular momentum, according to the no-hair theorem, and their size can be determined using the Schwarzschild radius. They can be formed following a supernova, and one of them is believed to be at the (\*) center of the Milky Way. For 10 points, name these astronomical entities from which light cannot escape.

ANSWER: black holes

## 2013 CMST - Round 3

16. In one of his paintings, this man included a self-portrait as the flayed skin held by St. Bartholomew; the nudity in that painting was censored by the Catholic Church. This man sculpted a horned *Moses* and worked on the tomb of Pope (\*) Julius II. This artist showed the end of times in his mural titled *The Last Judgment*. For 10 points, identify this Renaissance artist who painted the ceiling of the Sistine Chapel.

ANSWER: Michelangelo (di Lodovico) Buonarroti (Simoni) [accept either underlined name]

17. The tangent function gives these numbers when its input is in the 2nd or 4th quadrant. Using these numbers as exponents is defined in terms of a reciprocal. The absolute value function changes them. Defining their square roots requires (\*) imaginary numbers. Integers that are not natural numbers are either zero or one of these. For 10 points, name these numbers that are less than zero.

ANSWER: negative numbers

18. Three bearded boarders threaten lawsuits after being scared off by the main character of this work. That protagonist has a sister named Greta who wants to study violin at the conservatory, and he dies after his father throws an apple at him that becomes stuck in his back. (\*) For 10 points, name this work in which Gregor Samsa wakes up one day to find that he has been changed into a bug, a work by Franz Kafka.

ANSWER: *The Metamorphosis*

19. A prehistoric site in this river's watershed is the Marmes Rockshelter. The Celilo Canal and the city of Kettle Falls were built along it. This river's hydroelectric power is monitored by the Bonneville Power Administration. This river joins the Snake and Yakima at the Tri-Cities area. The Grand Coulee Dam lies on, (\*) for 10 points, what river famous for its salmon runs that comprises part of the Oregon-Washington border?

ANSWER: Columbia River

20. The sun deity of this myth system hid in a cave after her brother threw a flayed horse at her, but she was lured out with a dance and a mirror. After visiting the underworld, one of this myth system's gods washed his face, giving birth to the storm god Susano'o, the moon god (\*) Tsukuyomi, and the sun goddess Amaterasu.

Kami are the spiritual essences of, for 10 points, what mythological system practiced in Japan?

ANSWER: Shintoism

Extra. Some species in this group of animals have heat-sensitive pits in their heads, and most have only one working lung. The invasive brown tree type has caused many bird extinctions on Guam, and they use their tongues to gather scent molecules. Some kill prey by (\*) constriction or use fangs to inject venom, and the largest ever to exist was the titanoboa. For 10 points, name these limbless reptiles that include the python and cobra.

ANSWER: snake [or serpents; accept vipers before "brown tree"]

## 2013 CMST - Round 3

### Bonuses

1. For 10 points each, give the following related to scales that measure natural phenomena:

[10] The Fujita scale measures the intensity of these phenomena. They generally have wind speed less than 100 miles per hour and extend from a cumulonimbus cloud to the ground.

ANSWER: **tornadoes** [accept **twisters**; prompt on "cyclones"]

[10] The severity of earthquakes is measured by this logarithmic scale. A value greater than 10 on this scale has never been recorded.

ANSWER: **Richter** (magnitude) scale [or **moment magnitude** scale; prompt on "magnitude" scale]

[10] The Saffir-Simpson scale is used to classify these phenomena into categories 1 through 5. It has recently seen renewed criticism for being too simplistic.

ANSWER: **hurricanes**' wind speed or **cyclones**' wind speed [prompt on "wind" or "wind speed"]

2. This god wields the hammer Mjolnir that will always return to him. For 10 points each:

[10] Name this Norse god of thunder and son of Odin.

ANSWER: **Thor**

[10] Thor's chariot was pulled by two of these animals. While on Mt. Dicte, Zeus was raised by Amalthea, one of these farm animals.

ANSWER: **Goat**

[10] Loki once cut off the golden hair of this wife of Thor, but she had her hair restored after the Sons of Ivaldi forged new golden locks for her to wear.

ANSWER: **Sif**

3. Saxophonist Paul Desmond wrote this song, which appeared with "Blue Rondo a la Turk" on the 1959 album *Time Out*.

[10] Name this jazz standard by The Dave Brubeck Quartet.

ANSWER: **Take Five**

[10] Take Five's name comes from the fact that it's played in "five-four," referring to this musical notation. Jazz is often played in the "four-four" type of this notation.

ANSWER: **time** signature [or **meter**]

[10] Brubeck played this instrument for his quartet. Other jazz musicians to play this keyboard instrument include Thelonious Monk.

ANSWER: **piano**

4. Answer the following about part of the U.S. government, for 10 points each.

[10] This part of Congress has 100 members, two from each state. Its members are elected to six-year terms.

ANSWER: United States **Senate**

[10] This term describes when the Senate's unlimited time for debate is used to delay a vote on a particular bill. Until the early 1970's, it involved Senators speaking on the Senate floor for long periods of time.

ANSWER: **filibuster**

[10] This procedure limits debate on a bill, effectively ending a filibuster. It requires 60 votes to pass.

ANSWER: **cloture**

## 2013 CMST - Round 3

5. For 10 points each, name these people who lent their names to astronomical objects:

[10] Two dwarf galaxies visible from the Southern Hemisphere are named for this Portuguese explorer who did not discover them, but documented them in 1519.

ANSWER: Ferdinand **Magellan** [accept (Large and Small) **Magellanic** clouds]

[10] This British astronomer correctly predicted that a comet would appear 16 years after his death; that comet with a 76-year period now bears his name

ANSWER: Edmond (or Edmund) **Halley** [accept **Halley's comet**]

[10] Over Earth's equator are two concentric belts of intense radiation named for this American physicist who found them in the 1950s

ANSWER: James **Van Allen** [accept **Van Allen belts**]

6. This part of speech often is used to join two clauses together. For 10 points each:

[10] Name these words, examples of which include but, or, and and.

ANSWER: **conjunctions**

[10] This name is given to commas that immediately precede a conjunction. These commas are sometimes left off before the end of a list.

ANSWER: **serial** commas [accept **Oxford** commas or **Harvard** commas]

[10] This mood, sometimes called a conjunctive mood because it often follows conjunctions, is used to express possibilities that have not yet occurred.

ANSWER: **subjunctive** mood

7. For 10 points each, give the following about quadratic equations:

[10] This is the largest number of solutions a quadratic equation may have.

ANSWER: **two** solutions or zeroes or roots

[10] The number of solutions of a quadratic equation can be determined by evaluating this expression, which for the equation  $ax^2 + bx + c = 0$  [" $a$   $x$  squared plus  $b$   $x$  plus  $c$  equals zero"] is computed as  $b^2 - 4ac$  [" $b$  squared minus 4  $a$   $c$ "].

ANSWER: **discriminant**

[10] If a quadratic equation has only one distinct solution, then this is the value of the discriminant.

ANSWER: **zero**

8. This queen ruled England longer than any other monarch.

[10] Name this queen who ruled England from 1837 to 1901.

ANSWER: **Victoria**

[10] Victoria's husband was this man, who was from Germany. His early death so upset her that she used the pronoun "we" rather than "I" for the remainder of her life.

ANSWER: Prince **Albert**

[10] This man was her son and succeeded her. His lavish lifestyle became emblematic of his reign.

ANSWER: **Edward VII**

9. It has been claimed that on September 11th, 2012, Muslims rioted in protest of the production of the film *The Innocence of Muslims*. For ten points each;

[10] The film is considered offensive by Muslims as it features an unflattering portrayal of this prophet of Islam.

ANSWER: **Muhammad**

[10] Initial news reports indicated a protest over the film occurred at an American government building in Benghazi, the 2nd largest city in this North African nation.

ANSWER: **Libya**

[10] That protest may have provided cover for an organized terrorist attack that killed four people, including this American Ambassador to Libya.

ANSWER: Chris **Stevens**

## 2013 CMST - Round 3

10. In this novel, the protagonist's friend Jim Conklin states that he would desert in battle. For 10 points each:

[10] Name this Civil War novel about Henry Fleming, who himself flees from battle.

ANSWER: The **Red Badge of Courage**

[10] The Red Badge of Courage was written by this author of "The Open Boat".

ANSWER: Stephen **Crane**

[10] Another work set during the Civil War is this Louisa May Alcott work about the March sisters, whose father fights in the war.

ANSWER: **Little Women**

11. This man's brother was Aaron and he created water from a rock by striking it with his staff. For 10 points each:

[10] Name this man who, according to the book of Exodus, led the Israelites forth from Egypt and parted the Red Sea. He is also said to have written the Torah.

ANSWER: **Moses** [accept **Moshe**]

[10] Moses received this list of requirements from God. When Moses saw the Israelites worshipping a golden calf, he broke the original stone tablets these were written on.

ANSWER: The **Ten Commandments** [accept **Decalogue**; accept **asweret** ha-**dibrot**]

[10] Moses received the Ten Commandments on this mountain, where it is said that Moses spent forty days and forty nights receiving the commandments.

ANSWER: Mount **Sinai** [or Har **Sinai**]

12. Name these founding fathers, for 10 points each:

[10] This man led the Continental Army and would later become the first President of the United States.

ANSWER: George **Washington**

[10] This man was the first to sign the Declaration of Independence; according to legend, he wanted King George to be able to see it without his reading glasses on.

ANSWER: John **Hancock**

[10] This founding father argued that the colonies were sovereign in their internal affairs in his *Letters from a Farmer in Pennsylvania*.

ANSWER: John **Dickinson**

13. This author's *Northanger Abbey* and *Persuasion* were both published posthumously, and she also wrote *Sense and Sensibility*. For 10 points each:

[10] Name this author who wrote a novel about Emma Woodhouse, who falls in love with George Knightley.

ANSWER: Jane **Austen**

[10] One of Austen's characters is this woman who refuses a marriage proposal from William Collins and eventually learns to appreciate Fitzwilliam Darcy.

ANSWER: **Elizabeth** Bennet [prompt on "Bennet"]

[10] Elizabeth and her sisters are major characters in this Jane Austen novel.

ANSWER: **Pride and Prejudice**

14. Name these world mountains, for 10 points each.

[10] This active stratovolcano last erupted in 1707 and is one of Japan's "three holy mountains".

ANSWER: Mount **Fuji**

[10] This mountain is one of the four highest peaks in the Alps and is also one of the deadliest to climb. Its name derives from the German words for "meadow" and "peak."

ANSWER: **Matterhorn** [or **Monte Cervino** or **Mont Cervin**]

[10] This "White Mountain" is the highest mountain in the Alps, Western Europe, and the European Union.

ANSWER: **Mont Blanc**

## 2013 CMST - Round 3

15. The bacteria *H. pylori* can cause gastric ulcers when it infects this organ. For 10 points each:

[10] Name this organ of the digestive system that receives food through the esophagus and can stretch to 50 times its empty size.

ANSWER: **stomach**

[10] At the top of the stomach is the "cardiac" example of this type of muscle, while at the bottom is the "pyloric" one. In general, this is a ring-shaped muscle that controls whether an orifice is open or closed.

ANSWER: **sphincters** [accept cardiac **sphincter** or pyloric **sphincter**]

[10] After leaving the stomach, food enters this first section of the small intestine that receives additional digestive juices from the pancreas and gallbladder.

ANSWER: **duodenum**

16. For 10 points each, name these Roald Dahl novels.

[10] This book is about a boy who finds a golden ticket into Willy Wonka's candy factory and the downfall of characters like Augustus Gloop and Violet Beauregarde.

ANSWER: **Charlie and the Chocolate Factory**

[10] This book is about a girl named Sophie and the only nice giant in the world. They approach the Queen of England to ask her to capture the rest of the giants.

ANSWER: **The BFG** [prompt on "Big Friendly Giant"]

[10] In this book, the title character finds that she has the same telekinetic powers as Miss Honey and uses them to scare Miss Trunchbull, the school headmistress.

ANSWER: **Matilda**

17. Name these fictional cities from TV series, for 10 points each.

[10] This fictional Austin, Texas suburb is home to the Hill family as well as Boomhower and Dale Gribbel.

ANSWER: **Arlen**, Texas (from *King of the Hill*)

[10] This fictional Rhode Island town features real Rhode Island landmarks such as Pawtucket. It is the home of the Griffin family.

ANSWER: **Quahog**, Rhode Island (from *Family Guy*)

[10] This fictional city features Barney's Bowl o' Rama, King Toot's music shop, Krustylu Studios and the Kwik e Mart.

ANSWER: **Springfield** (from *The Simpsons*)

18. This architect built several studios named Taliesin. For 10 points each:

[10] Name this pioneer of the Prairie School of architecture, who designed Edgar Kaufmann's Pennsylvania vacation home, known as Fallingwater.

ANSWER: Frank Lloyd **Wright**

[10] Frank Lloyd Wright designed the Guggenheim Museum in this American city, which is also home to the Empire State Building and a complex of buildings called Rockefeller Center.

ANSWER: **New York** City [or **NYC**]

[10] The Seagram Building in New York was co-designed by Philip Johnson and this man, who is also known for his maxims "God is in the details" and "Less is more."

ANSWER: Ludwig **Mies** van der Rohe [prompt on "van der Rohe"]

## 2013 CMST - Round 3

19. This country patriated its constitution in 1982, meaning that it can amend its own constitution without reference to Britain. For 10 points each:

[10] Name this country whose prime ministers have included John Macdonald and Pierre Trudeau. Its current leader is Stephen Harper.

ANSWER: **Canada**

[10] This Canadian province held sovereignty referendums in 1980 and 1995 because many of its residents want to become an independent country. Unlike residents in other provinces, most of its residents speak French.

ANSWER: **Quebec**

[10] In 1999, this large territory became a separate territory from the Northwest Territories.

ANSWER: **Nunavut**

20. Paper and pencil ready. Consider a bag with three red socks and three blue socks. For 10 points each:

[10] What is the probability of picking a pair of red socks out of the bag given two picks without replacement?

ANSWER:  $\frac{1}{2} \times \frac{2}{5} = \frac{1}{5}$  [or 0.2 or 20%]

[10] What is the probability of picking a pair of either color socks out of the bag given two picks without replacement?

ANSWER:  $\frac{2}{5}$  [or 0.4 or 40%]

[10] What is the probability of getting at least one matching pair of socks out of the bag given three picks without replacement?

ANSWER: 1 or 100% [accept any answer indicating that the event will definitely happen]

Extra. This leader was called the "Hero of Two Worlds" for his involvement in both European and South American conflicts. For 10 points each:

[10] Name this general, who led the Redshirts in Expedition of the Thousand to defeat the Kingdom of the Two Sicilies.

ANSWER: Giuseppe **Garibaldi**

[10] Garibaldi was prominent during the unification of this country, also known as the Risorgimento. The Carbonari were another group prominent during this country's unification, which led to Victor Emmanuel II ruling from Rome.

ANSWER: **Italy** [accept **Italia**]

[10] This other Italian led a famous "March on Rome" which established his fascist party's power. This dictator known as "Il Duce" was in power for much of World War II.

ANSWER: Benito **Mussolini**