2013 Collaborative Middle School Tournament
Round 5

Tossups

1. **Martin Luther wrote that people should let these be strong, but that their trust in Christ should be stronger. They can be divided into types of commission and omission, and they can be classified as grave or** (*) mortal if they have serious matter, full knowledge, and full consent. For 10 points, name these offenses against God's will, of which there are seven "deadly" ones.
ANSWER: **sin**s

2. **One work by this composer includes the sections "O Death, where is thy sting?" and "I know that my Redeemer liveth." He included two bourrées in a collection of three suites first played on barges on the River Thames for George I. This composer of *Water Music* composed a fugue on the line "and he shall reign for ever and ever" in a chorus named** (*) "Hallelujah." For 10 points, name this composer of *Messiah*.
ANSWER: George Frideric **Händel**

3. **Some of this company's products use the SpiderMonkey JavaScript engine and the Gecko rendering engine. This free software company grew out of Netscape and produces an email client called Thunderbird. Its most popular product, currently on version 19, has a mobile version called Fennec and is a web** (*) browser that was recently passed in market share by Google Chrome. For 10 points, name this company that produces Firefox.
ANSWER: **Mozilla**

4. **This river divides Minneapolis and St. Paul. In 1927, this river's flood was the worst in US history, causing a system of levees to be built that was the world's longest. Nicknamed the "Big Muddy", this river serves as part of the border between** (*) Louisiana and its namesake state. For 10 points, name this river that, with the Missouri, makes up the longest river system in the United States.
ANSWER: **Mississippi** River

5. **One character in this play states, "Life's but a walking shadow, a poor player." Minor characters in this play include the thanes Ross and Lennox. The title character begins this play as the Thane of Glamis ["glahmz"].** (*) Banquo and Fleance also appear in, for 10 points, what play by Shakespeare about a Scottish lord?
ANSWER: *Macbeth*

6. **For an ideal gas, this property is proportional to the average kinetic energy of the particles. Relative humidity is computed by comparing the wet-bulb and dry-bulb measurements of this quantity. According to the third law of thermodynamics, a perfect crystal has zero entropy when this property is** (*) absolute zero. For 10 points, name this quantity whose SI unit is the kelvin and that can also be measured on the Celsius and Fahrenheit scales.
ANSWER: **temperature** [do not accept "heat"]

7. **The second king of this country, who started the International African Association and worked with Henry Stanley to establish a colony called the Congo Free State, was Leopold II. During World War I, several battles were fought near its town of Ypres, which is in its** (*) Flanders region. This country gained its independence in 1830 from the Netherlands. For 10 points, Walloons and Flemings live in what country whose capital is Brussels?
ANSWER: Kingdom of **Belgium**

8. **The protagonists of this song's music video throw magazines, clothes and an empty fishbowl out an open window. This song notes that "maybe I was stupid for telling you goodbye" regarding a boy who the singer supposes is sorry because "you're** (*) standing at my door." This song's chorus notes that "you've got a piece of me and honestly" before expressing the title sentiment. For 10 points, name this Kelly Clarkson song about how terrible life would be without its addressee.
ANSWER: "**My Life Would Suck Without You**"

9. **In one novel written in this language, Adso of Melk and William of Baskerville solve a murder mystery at a monastery. That work, *The Name of the Rose*, was published in this language eight years before the same author's *Foucault's Pendulum*. A treatise in this language advised the title ruler that it was better to be feared than loved.** (*) For 10 points, name this language employed by writers like Umberto Eco and Niccolo Machiavelli.
ANSWER: **Italian** [accept *Italiano* or *Lingua italiana*]

10. **This man used powers granted by the Taft-Hartley Act during a confrontation with air traffic controllers, and his Defense Secretary resigned after violations of the Boland Amendment were revealed. Before those events during his presidency, he served as Governor of California from 1967 until 1975. Prior to entering politics, this man was a famous** (*) Hollywood actor. For 10 points, name this Republican president from 1981 to 1989.
ANSWER: Ronald (Wilson) **Reagan**

11. **This nation's men's soccer team was only allowed to play home matches in empty stadiums in 2012 after 74 fans were killed at a league match in Port Said (sah-EED). This nation's government, controlled by the Islamic Brotherhood and headed by Mohamed** (*) Morsi, came to power after the overthrow of Hosni Mubarak (moo-BAR-ak). For 10 points, name this nation which in 2011 had riots in Tahrir Square in Cairo.
ANSWER: **Egypt**

12. **Samuel Chase was the only impeached member of this group, which is vested with power by Article III of the U.S. Constitution. Harriet Miers and Robert Bork were unsuccessful nominees to join this group, which Franklin Roosevelt proposed increasing to a size of 15.** (*) Marbury v. Madison was an 1803 decision by, for 10 points, what nine-member panel, the highest-ranking in the judicial branch?
ANSWER: United States **Supreme Court** [accept **SCOTUS** (Supreme Court of the United States); prompt on "Court"]

13. **Opposite corners of this constellation are at the start Saiph and Bellatrix. Though called its beta, its brightest star is usually Rigel [RY-jul]. This constellation is visible only in the winter, and its alpha star, part of the Winter Triangle and at the center of the Winter Hexagon, is** (*) Betelgeuse ["beetle juice"]. A line across its center formed by Alnitak, Alnilam, and Mintaka is known as its "belt". For 10 points, name this constellation known as the Hunter.
ANSWER: **Orion** [prompt on the "Hunter"]

2013 CMST - Round 5

14. **This novel's protagonist wants to become the fastest runner in the fifth grade, but that plan is spoiled by the girl who moves in next door. While this book's protagonist visits the National Art Gallery with his music teacher, that girl tries to** (*) swing over the creek, but the rope snaps and she dies. For 10 points, Jess Aarons and Leslie Burke discover a magical land in what book by Katherine Paterson?
ANSWER: *__Bridge to Terabithia__*

15. **After this god's son brought Hippolytus back to life, Asclepius was killed by Zeus. Along with his sister, he killed Niobe's seven sons. He slew the dragon Python and established the Oracle of Delphi at the place where it died. This son of Leto pursued the nymph** (*) Daphne, only for her to turn into a laurel tree. For 10 points, name this Greek god of archery, music, and light whose twin sister was Artemis.
ANSWER: __Apollo__

16. **The AM-GM inequality compares two types of this measure for a set of n non-negative numbers. One type of this is the *n*th root of the product of *n* numbers; that is the geometric type of this measure. The usual type of this measure is called the** (*) arithmetic type, which equals the sum of *n* numbers divided by *n* and is often contrasted with the median and mode. For 10 points, name this measure, the average value of a set of numbers.
ANSWER: __mean__ [accept __average__ before it is mentioned]

17. **This non-Italian artist included a bare-chested torso in the background of his *The Sacrament of the Last Supper*. He included many cubes in the "disintegration" of his best-known painting, and also created a *Lobster Telephone*. His best-known painting includes several ants on a** (*) timepiece, as well as clocks which have the appearance of melting. For 10 points, name this Spanish surrealist who painted *The Persistence of Memory*.
ANSWER: Salvador (Felipe Jacinto) __Dalí__ (i Domènech)

18. **This man wrote poems like "maggie and milly and molly and may" and "i carry your heart with me." He chronicled his imprisonment during World War 1 in *The Enormous Room*. He wrote about "someones marry[ing] their everyones" and "sun moon stars rain" in "anyone lived in a pretty how town."** (*) For 10 points, name this poet known for his unconventional use of punctuation and capitalization.
ANSWER: E(dward) E(stlin) __Cummings__

19. **Darwin predicted the existence of a Madagascar moth after observing one of these structures, which have separate male/female types in dioecious [dy-oh-EE-shus] species. The parts of this occur in multiples of three in monocots and many use** (*) nectar to attract pollinators. One mature part of this becomes the fruit, and it has stamen and carpel reproductive organs. For 10 points, name this structure found in angiosperm plants, often surrounded by petals.
ANSWER: __flower__ [do not prompt on "plant"]

20. **The first prime minister of this country gave a speech outlining the Five Principles of Peaceful Coexistence that formed a basis for a treaty with China, and he also gave the "Tryst with Destiny" speech. Another prime minister was assassinated by her bodyguards in 1984 soon after approving an attack on the Golden Temple in Amritsar.** (*) For 10 points name this country once headed by Jawaharlal Nehru that disputes the status of Kashmir with Pakistan.
ANSWER: Republic of __India__ [accept *__Bhārat__ Gaṇarājya*]

Extra. **This author wrote about "Irma's Injection" in his 1900 book *The Interpretation of Dreams*. "Anna O.," "Little Hans," and the "Wolf Man" were some of the patients who sought advice from his Vienna clinic. "Jokes and their Relation to the** (*) Unconscious" is an essay by this man, whose "structural theory" proposed that the mind is divided into the id, the ego, and the superego. For 10 points, name this Austrian founder of psychoanalysis.
ANSWER: (Sigismund Schlomo) Sigmund __Freud__

2013 CMST - Round 5

Bonuses

1. Some of his biggest victories came at the battles of Issus and Gaugamela. For 10 points each:
[10] Name this 4th century BC leader who headed a large empire after succeeding his father Philip II of Macedon.
ANSWER: **Alexander the Great** [accept **Alexander III** of Macedon, prompt on "Alexander"]
[10] As a child, Alexander the Great was tutored by this philosopher who had been a student of Plato.
ANSWER: **Aristotle**
[10] At the battles of Issus and Gaugamela, Alexander the Great defeated this Persian leader.
ANSWER: **Darius III** [prompt on "Darius"]

2. In this poem, the narrator tells the bells to ring because the "The ship has weather'd every rack, the prize we sought is won" and their "fateful trip is done." For 10 points each:
[10] Name this elegy for Lincoln where the title character "lies fallen, cold, and dead" on the deck of a ship.
ANSWER: **"O Captain! My Captain!"**
[10] "O Captain! My Captain!" was written by this American poet. He also wrote "Song of Myself" in his collection *Leaves of Grass*.
ANSWER: Walt **Whitman**
[10] This other Whitman poem is also an elegy for Lincoln. In it, the title flowers remind the narrator of mourning and he laments that, "the great star early droop'd in the western sky in the night."
ANSWER: **"When Lilacs Last in the Dooryard Bloom'd"**

3. In February 2013, a controversy arose as to whether or not a famous reporter had been threatened by the White House. For 10 points each:
[10] Name the reporter, famous for breaking the Watergate story with Carl Bernstein, who received a message saying, "I know you may not believe this, but as a friend, I think you will regret staking out that claim."
ANSWER: Bob **Woodward**
[10] That message was sent by this White House aide.
ANSWER: Gene **Sperling**
[10] The disagreement was based on these automatic cuts to the national budget that had a major impact on the defense department.
ANSWER: **sequestration** [or **sequester**ing]

4. By one estimate, 56% of the leaves that drop to the forest floor are eaten by these organisms. For 10 points each:
[10] Name these segmented animals of the phylum Annelida that help aerate plant roots as they burrow through the soil.
ANSWER: **earthworm**s [prompt on "worm(s)"]
[10] Earthworms, along with many fungi and bacteria, have this role in the ecosystem. These organisms recycle nutrients by breaking down dead plants and animals.
ANSWER: **decomposer**s [or **detritivore**s or **saprotroph**s]
[10] Decomposers are a key link in this nutrient cycle that humans disrupt by deforestation and the burning of fossil fuels.
ANSWER: **carbon** cycle

5. In this novel set in a modern day U.S. city, 15 year old twins Sophie and Josh work for Nick and Perry Fleming and end up in an epic battle between a magician, necromancer and gollum. For 10 points each:
[10] Name this novel by Michael Scott, the first of a six book fantasy fiction series. The title character uses magic from a book called *The Codex* to keep himself and his wife from aging.
ANSWER: ***The Alchemyst****: The Secrets of the Immortal Nicholas Flamel*
[10] *The Alchemyst* is set in this California city, connected by the Golden Gate Bridge to neighboring Marin [muh-RIN] County.
ANSWER: **San Francisco**, California
[10] In *The Alchemyst*, this villain is introduced early when he enters the book store in search of *The Codex*. He steals the book and kidnaps Perry, setting up the action in the novel.
ANSWER: Dr. **John** **Dee** [accept either underlined part]

6. This amendment guarantees freedom of religion and freedom of the press. For 10 points each:
[10] Name this amendment that also establishes freedom of speech.
ANSWER: **First** Amendment
[10] In the case *Schenck v. US,* the Supreme Court ruled that not all forms of free speech are protected, such as if someone were to falsely shout this in a crowded theater.
ANSWER: "**Fire**!" [accept answers indicating that there is a fire; answers do not need to be shouted]
[10] The *Schenck* case established this standard for determining if speech is protected. The 1969 case *Brandenburg v. Ohio* changed this standard to "imminent lawless action".
ANSWER: "**clear and present danger**"

7. For 10 points each, give the following about waves and motion:
[10] Exemplified by the changing pitch of a passing train's horn, this effect is used in weather radar to detect motion toward or away from the observer.
ANSWER: **Doppler** effect [or **Doppler** shift; accept **Doppler** radar]
[10] When an object in space is moving away from the observer, the wavelength of its light—and thus its color—changes in this form of the Doppler effect.
ANSWER: **redshift** [accept word forms]
[10] This astronomer discovered that calculations on the redshift of galaxies can determine their distance from earth; his namesake space telescope can measure those redshifts.
ANSWER: Edwin (Powell) **Hubble**

8. Identify these inhabitants of the Greek underworld, for 10 points each:
[10] This trio of goddesses determined the destiny of every person as they spun, measured, and cut the thread of life.
ANSWER: **Fate**s
[10] This more fearsome trio punished those who committed crimes against family members and pursued Orestes for killing his mother Clytemnestra.
ANSWER: **Furies** [or **Eumenides**; accept **Kindly Ones**]
[10] This Greek god ruled the underworld with his wife Persephone.
ANSWER: **Hades**

9. For 10 points each, identify the following about artwork in the Art Institute of Chicago:

[10] This surrealist's *Time Transfixed* is located in the Art Institute, as well as a reworking of his The *Treachery of Images*, which features a picture of a pipe and the words "This is not a pipe" in French.

ANSWER: René (François Ghislain) **Magritte**

[10] The Art Institute also includes *A Sunday Afternoon on the Island of La Grand Jatte*, which exemplifies this artistic style which employs the use of many tiny dots.

ANSWER: **pointillism** [or **divisionism**; accept word forms]

[10] Perhaps most famously, the Art Institute includes this Edward Hopper painting, which depicts a downtown diner, within which are a few patrons and one worker. It is set late in the evening.

ANSWER: ***Nighthawks***

10. For 10 points each, name these numbers:

[10] This constant, also known as Euler's number, appears in the formula for continuously compounded interest and is approximately 2.718.

ANSWER: **e**

[10] To construct the complex numbers, one defines this value as a square root of negative one.

ANSWER: **i** [accept **imaginary** unit]

[10] This constant is the additive identity.

ANSWER: **zero**

11. Performances of this song earned Susan Boyle a berth on Britain's Got Talent and helped Anne Hathaway win an Oscar for Best Supporting Actress in 2013. For 10 points each:

[10] Name this song, a rememberance of a "time gone by/When hope was high, and life worth living," sung by Fantine.

ANSWER: "**I Dreamed a Dream**"

[10] "I Dreamed a Dream" is from this musical, an adaptation of a Victor Hugo novel. Its other songs include "On My Own" and "Do You Hear the People Sing?"

ANSWER: *Les **Misérables*** [accept **Les Miz**]

[10] This song ends Act 1 of the musical version of *Les Misérables*. It notes that "Tomorrow, we'll discover what our God in heaven has in store."

ANSWER: "**One Day More**"

12. This team defeated the New York Yankees in the 2012 ALCS before being swept in the World Series. For 10 points each,

[10] Comerica Park is the home of what team that lost the World Series to the San Francisco Giants?

ANSWER: **Detroit** **Tigers** [accept either]

[10] In 2012 this Tigers third baseman won the first Triple Crown title in the major leagues since Carl Yastrzemski in 1967.

ANSWER: (José) Miguel **Cabrera** (Torres)

[10] This man is the current manager of the Detroit Tigers. He led the Tigers to the 2006 World Series as well, before being defeated by the St. Louis Cardinals.

ANSWER: Jim **Leyland**

13. This detective lives at 221B Baker Street and first appeared in the novel *A Study in Scarlet*. For 10 points each:
[10] Name this person with great logical skills who figures out how people died in *The Hound of the Baskervilles* and *The Valley of Fear*.
ANSWER: **Sherlock** **Holmes** [accept either underlined part]
[10] The Sherlock Holmes novels were written by this author.
ANSWER: Sir Arthur Conan **Doyle**
[10] *The Valley of Fear* and the story "The Final Problem" feature this criminal mastermind, Holmes' greatest enemy.
ANSWER: Professor **James** **Moriarty** [accept either underlined part]

14. It endured a severe winter known as the "starving time." For 10 points each:
[10] Name this first permanent English settlement in the Americas. John Rolfe made it economically viable by introducing the tobacco crop.
ANSWER: **Jamestown**
[10] Rolfe married Pocahontas, who allegedly saved this man from execution by her father, Chief Powhatan. In his brief leadership over Jamestown , the adage "he who shall not work, shall not eat" was implemented as policy.
ANSWER: John **Smith**
[10] This first Spanish settlement on the American mainland was founded by Pedro Menéndez de Avilés. It is located in present-day Florida.
ANSWER: **Saint Augustine** [accept **San Agustín**]

15. Paper and pencil ready. Answer each of the following in terms of pi, for 10 points each.
[10] What is the area of a circle with diameter 12?
ANSWER: **36pi**
[10] What is the area of a circle inscribed in a square of area 64?
ANSWER: **16pi**
[10] What is the area of a circle circumscribed around a square of area 64?
ANSWER: **32pi**

16. One of the first events in this book is the appointment of a replacement, Matthias. For 10 points each:
[10] Identify this first book of the New Testament after the four Gospels, which centers on the title deeds of the 12 figures who spread Christianity.
ANSWER: **Acts** of the Apostles
[10] Matthias was chosen to replace this man, as he won the drawing of the lots against Joseph Barsabbas for that position. This man famously betrayed Jesus with a kiss.
ANSWER: **Judas**
[10] In Acts, Philip comes across a eunuch from this country, to whom he explains the Book of Isaiah and the word of Jesus. The Queen of Sheba, also mentioned in the Bible, is from this country.
ANSWER: **Ethiopia**

17. Name these American rivers, for 10 points each.
[10] This river is the largest tributary by volume to the Mississippi River. Louisville, Kentucky located at the widest and deepest part of this river.
ANSWER: **Ohio** River
[10] This river flows from southwestern Colorado to the Gulf of Mexico. It forms part of the US-Mexican border.
ANSWER: **Rio Grande**
[10] This is the longest river in North America. Cities such as Omaha, Bismarck, and Great Falls are located on this river.
ANSWER: **Missouri** River

18. This character has been the subject of works by Christopher Marlowe, Johann Wolfgang von Goethe, and Thomas Mann. For 10 points each:

[10] Name this fictional scholar who exchanges his soul for knowledge and/or pleasure.

ANSWER: Johann Georg **Faust** [accept Doctor **Faustus**]

[10] Goethe and Mann were both residents of this country. Goethe belonged to its Sturm und Drang and Weimar Classicism movements.

ANSWER: **Germany**

[10] The German writer Friedrich Schiller wrote one of the best known tellings of this Swiss legend who shot an apple off his son's head.

ANSWER: William **Tell** [prompt on "William"]

19. For 10 points each, name these metals:

[10] Steel is an alloy of this transition metal with carbon. Like cobalt and nickel, it exhibits ferromagnetism, which is named for it.

ANSWER: **iron** [prompt on "Fe"]

[10] Aqua regia—a combination of nitric acid and hydrochloric acid—is notable for being able to dissolve this precious metal, whose symbol comes from its Latin name, *aurum*.

ANSWER: **gold** [prompt on "Au"]

[10] This metal has the highest melting point among metallic elements. It is used in incandescent light bulb filaments.

ANSWER: **tungsten** [accept **wolfram**; prompt on "W"]

20. Given an event, identify the century when it took place, for 10 points each.

[10] Metternich holds the Congress of Vienna, and the Paris Commune briefly rules.

ANSWER: **19th** century [or **1800**s]

[10] Louis XV rules France for 59 years. The growing restlessness of his people precludes the French Revolution, causing him to say "After me, the deluge".

ANSWER: **18**th century [or **1700**s]

[10] The Black Death kills about 100 million people, and several popes rule from Avignon.

ANSWER: **14**th century [or **1300**s]

Extra. The FCC imposed a June 12, 2009 deadline for television stations to cease broadcasting their signals as analog transmissions. For 10 points each:

[10] All TV stations are now required to broadcast their signals exclusively in this format, allowing for high-definition pictures.

ANSWER: **digital** [accept **DTV** or **DVB** or **Digital Video Broadcast**ing]

[10] Digital TV signals are broadcast using ultra high frequency transmissions, which are part of this larger band on the electromagnetic spectrum, where the wavelengths are longer than infrared waves, but shorter than radio waves.

ANSWER: **micro**waves

[10] Many people have thrown their old televisions away. Now experts are concerned that landfills are developing high concentrations of this heavy metal, used in the production of cathode ray tubes. Its chemical symbol is Pb.

ANSWER: **lead**