

2011 Collaborative Middle School Tournament

Round 5

Tossups

1. Variations of this orchestral instrument include the Japanese *shakuhachi* (SHAH-koo-HAH-chee) and Armenian *sring*. French models of this instrument have open holes, and this instrument represents the bird in Prokofiev's *Peter and the Wolf*. Unlike other woodwinds, it lacks a reed. It comes in end-blown and side-blown varieties. For 10 points, name this woodwind instrument, whose varieties include the piccolo.

ANSWER: flute

2. This book claims that the only two lamplighters who lead idle lives are at the North and South Poles, and it describes a King, a Geographer, and a Businessman. Much of it takes place after a crash landing in the Sahara, and its title character misses a flower growing on an asteroid. For 10 points, name this work that begins with a picture of a snake eating an elephant that is often mistaken for a hat, a book by Antoine de Saint-Exupery.

ANSWER: *The Little Prince* [or *Le Petit Prince*]

3. During this battle, Confederate armies attempted to drive their opponent towards Owl Creek, but Union forces fell back towards an area known as the Hornet's Nest instead. Albert Sidney Johnston was killed on the first day of this battle, and the arrival of General Buell's troops sent the Confederates packing after day two. For 10 points, name this April 6, 1862 battle fought in Tennessee.

ANSWER: Battle of Shiloh [or Battle of Pittsburg Landing]

4. Both Globular Cluster M54, the center of this constellation's namesake dwarf elliptical galaxy, and a possible supermassive black hole at the center of the Milky Way are found in this constellation. Unusually, its brightest star is its epsilon star, Kaus Australis, found in its Milk Dipper, or Teapot, asterism. For 10 points, name this constellation found between Ophiucus and Capricorn, which depicts an archer.

ANSWER: Sagittarius

5. The protagonist of this work returns home from the University of Ingolstadt to find that Justine Moritz has been accused of his brother William's murder. The title character, whom Robert Walton discovers in the Arctic in a frame story, had earlier married Elizabeth Lavenza, who was killed on their wedding night. For 10 points, name this Mary Shelley work about a doctor and the monster he creates from dead body parts.

ANSWER: Frankenstein, or the Modern Prometheus

6. The northern part of this park contains the Hetch Hetchy Valley, which was controversially dammed against the advice of John Muir. Ansel Adams took black-and-white photographs of this park, including one of the moon over the granite formation called Half Dome. A waterfall that feeds the Merced River shares its name with, for 10 points, what national park in the Sierra Nevada of California?

ANSWER: Yosemite National Park

7. In one quest, this figure is directed to the ferryman Urshanabi (UR-shah-NAH-bee) by Siduri. After his companion dies, this figure visits Utnapishtim (OOT-nah-PEESH-tim), who tells him where to find a plant capable of restoring youth. That plant is later stolen by a serpent. This figure slew the guardian of the cedar forest, Humbaba, and the Bull of Heaven, with Enkidu. For 10 points, name this king of Uruk and hero of a Mesopotamian epic.

ANSWER: Gilgamesh

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8. Hilbert's Grand Hotel paradox is a thought experiment concerning this concept in sets, and taking the limit to it is used to find a function's horizontal asymptote. Irrational numbers are defined to have this quantity of digits, and Euclid proved that there are this many prime numbers. For 10 points, name this concept in math which is defined as the largest, boundless quantity.

ANSWER: infinity

9. The Garigal (GARE-ih-gall) and Lane Cove national parks are in this city, whose center is known as the Circular Quay. It is located on the south shore of Port Jackson, which is spanned by a namesake Harbour Bridge. Jorn Utzon (YORN OOT-sun) designed the white shells of this city's opera house. Suburbs of this city can be found on the coast of Botany Bay. For 10 points, name this city on the coast of New South Wales, the largest in Australia.

ANSWER: Sydney

10. The third game in this series saw its first set of dual worlds and the first use of the Spin Attack technique. A common theme in this game is the protagonist's attempts to rescue the title princess and reunite the Triforce. This series includes games subtitled *A Link to the Past* and *The Ocarina of Time*. For 10 points, what is this video game series whose most recent entry is subtitled *The Twilight Princess*?

ANSWER: *The* Legend of Zelda [prompt on Zelda]

11. This man found that nothing would grow in nutrient broth unless it was exposed to the air, thereby rejecting the theory of spontaneous generation and providing evidence for germ theory. He generalized Edward Jenner's work with smallpox immunity to develop vaccines for anthrax and rabies. For 10 points, name this French scientist who engineered a namesake process to destroy microorganisms in milk and other food products.

ANSWER: Louis Pasteur [accept pasteurization or word forms after "process"]

12. This entity was assembled and in retaliation for English support of the Dutch Revolts. This entity was commanded by Alvaro de Bazan (all-VAR-oh de bah-ZAHN). It intended to deliver troops under the Duke of Parma across the English Channel, but it lost many vessels when attempting to sail around the British Isles in poor weather. For 10 points, identify this fleet of over 130 ships assembled by Philip II of Spain.

ANSWER: Spanish Armada [accept Armada after "Spain"]

13. This man is told by the ghost of his wife Creusa to leave for Hesperia after carrying his father Anchises (ann-KYE-sees) and son Ascanius out of a besieged city. He visits the underworld with the help of a golden bough, on the advice of the Cumaean Sibyl. He duels Turnus for the hand of Lavinia. After this son of Venus leaves Carthage, Dido kills herself. For 10 points, name this Trojan who founds Rome according to an epic by Virgil.

ANSWER: Aeneas [prompt on *The Aeneid*]

14. An alpha particle is a nucleus of this element, which has a filled 1s (ONE S) orbital but no p orbitals at ground state. After the Hindenburg disaster, this gas replaced hydrogen in zeppelins and blimps. Because the speed of sound in this gas is much faster than that in air, inhaling it causes a high-pitched voice. For 10 points, name this lightest noble gas, with atomic number two and symbol He (H-E).

ANSWER: helium [accept He before it is read]

15. When one of this state's senators, Mel Martinez, did not seek reelection, George LeMieux (leh-MEW) was appointed to that position. In 2010, a three-way race for that seat involved former Republican governor Charlie Crist, who ran as an Independent, and eventual winner Marco Rubio. For 10 points, name this state whose vote-counting procedures created controversy during the 2000 presidential election.

ANSWER: Florida

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16. The scholar John Marshall described this text as a parable of the civil wars gripping Rome, and he regards it as a Jewish text written by John of Patmos. The seven heads of the beast described in this book are often interpreted as the succession of seven Roman emperors during the first century. This book also describes the Four Horsemen of the Apocalypse. For 10 points, name this last book of the New Testament. ANSWER: Book of **Revelation** [accept **Apocalypse of John** before “John”; do not accept or prompt on “John”]

17. This poet wrote of a man who is asked, “Why don’t you speak for yourself, John?” when he delivers another man’s marriage proposal in “The Courtship of Miles Standish.” This poet of “The Children’s Hour” also wrote of a man who saw two lamps in the belfry of the Old North Church, indicating that the British were arriving by sea. For 10 points, name this poet of “Paul Revere’s Ride,” who also wrote “The Song of Hiawatha.”

ANSWER: Henry Wadsworth **Longfellow**

18. This force allows accelerated rolling motion down an incline by producing a net torque on the object. In general, this nonconservative force is equal to the normal force times mu, its namesake coefficient, and it converts kinetic energy into internal energy. For a given object, the kinetic variety is less than the static type. For 10 points, name this force between surfaces that opposes the motion of an object.

ANSWER: **friction**

19. This leader fought with co-emperor Licinius in battles at Cibalae (SEE-ball-AY) and Adrianople. It is said that he had a vision before the Battle of Milvian Bridge. He called for the Council of Nicaea and issued the Edict of Milan. He was the first Roman Emperor to convert to Christianity, and he established an eastern capital at Byzantium. For 10 points, name this Roman Emperor who lent his name to the city now called Istanbul.

ANSWER: **Constantine** I [or **Constantine** the Great; or Flavius Valerius Aurelius **Constantinus**; or Saint **Constantine**]

20. This artwork was painted over a previous decoration of gold stars on a blue sky. Sibyls and Prophets surround its nine central panels, which depict scenes from the Book of Genesis. This painting’s best-known section shows a man reaching out and almost touching fingers with God. The artist stood on a scaffold to paint, for 10 points, what large fresco that includes *The Creation of Adam*, a work of Michelangelo?

ANSWER: **ceiling** of the **Sistine Chapel** [prompt on **Sistine Chapel**]

Extra. The fundamental units in these body parts work according to the sliding-filament hypothesis and are called sarcomeres. The type that surrounds hollow organs such as the stomach is the smooth type, and the other two types are cardiac and skeletal. One of them, the diaphragm, ultimately fails in a namesake kind of “dystrophy.” For 10 points, name these human organs necessary for movement, which include triceps and biceps.

ANSWER: **muscles**

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Bonuses

1. For 10 points each, name these British Prime Ministers.

[10] This first British Prime Minister dealt with the War of Jenkins' Ear and the South Sea Bubble.

ANSWER: Robert Walpole

[10] This Prime Minister delivered the "Defense of the Island" speech following the start of the Blitz on London, and led Great Britain through most of World War II.

ANSWER: Winston Leonard Spencer-Churchill

[10] This first female Prime Minister served as the Secretary of State for Education and Science under Edward Heath and dealt with a war in the Falkland Islands.

ANSWER: Baroness Margaret Hilda Thatcher

2. For 10 points each, identify the following terms related to circles.

[10] This is a portion of the circumference of a circle. It can be measured either by its length or by the central angle it subtends.

ANSWER: arc

[10] This is a segment that connects two points on a circle. One example of this type of segment is a diameter.

ANSWER: chord

[10] This is a line that touches a circle without going inside the circle.

ANSWER: tangent

3. Chief Ezra Collig frequently lends his police force to the assistance of the title characters. For 10 points each:

[10] The pen name Franklin W. Dixon was used by multiple writers to depict this series of adventures about Frank and Joe, teenage boys who solve mysteries in the city of Bayport.

ANSWER: *The* Hardy Boys

[10] Name the boys' spinster aunt, a sister of Fenton Hardy who puts on a gruff demeanor.

ANSWER: Aunt Gertrude Hardy [prompt on Hardy]

[10] This good-natured, food-loving friend of the boys frequently accompanies them on cases and obsessively undertakes a new hobby every book. His sister Iola is Joe's frequent date.

ANSWER: Chet Morton [accept either or both underlined parts]

4. It was created from the merger of the Department of War and the Department of the Navy. For 10 points each:

[10] Name this Cabinet department that oversees the Army, Navy, Air Force, and Marine Corps.

ANSWER: Secretary of Defense

[10] This group consists of a Chairman and Vice Chairman and the heads of each of the four armed services. This body advises the President and Secretary of Defense.

ANSWER: Joint Chiefs of Staff [or JCS; prompt on partial answers such as Joint Chiefs]

[10] This fifth branch of the armed services is part of the Department of Homeland Security during peacetime and Department of Defense during wartime.

ANSWER: United States Coast Guard [or CG]

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5. For 10 points each, answer the following about the atmosphere.

[10] Weather occurs in this lowermost layer of the atmosphere.

ANSWER: **troposphere**

[10] This gas is a major component of photochemical smog in the troposphere, but further up, it forms a layer that blocks ultraviolet light.

ANSWER: **ozone** [or **O₃**]

[10] This is the layer of the atmosphere, between the stratosphere and the thermosphere, that contains the ozone layer.

ANSWER: **mesosphere**

6. Miss Watson and the Widow Douglas try to civilize this character, who later fakes his own death to escape his drunken father. For 10 points each:

[10] Name this character who runs away with Jim and rides a raft down the Mississippi River.

ANSWER: **Huckleberry Finn** [accept either]

[10] Huck is briefly adopted by this farming family, whose code of honor obliges them to start a family war when their daughter Sophia elopes with Harney Shepherdson.

ANSWER: the **Grangerfords**

[10] When Jim gets trapped in a shack near the end of the book *Huckleberry Finn*, this character oversees an impractical three-week rescue mission.

ANSWER: **Tom Sawyer** [accept either]

7. This musical family's members included Carl Philipp Emanuel and Johann Christian, who were sons of the most famous composer with this last name. For 10 points each:

[10] Name this family of composers whose patriarch wrote *The Well-Tempered Clavier* and was named Johann Sebastian.

ANSWER: **Bach** family

[10] J.S. Bach is associated with this musical period of the seventeenth and early eighteenth centuries.

ANSWER: **baroque** period

[10] J.S. Bach wrote this set of six concertos for a namesake margrave; the last one lacks violins.

ANSWER: **Brandenburg** concertos, BWV 1046-1051 [or *Six concerts à plusieurs instruments*]

8. He claimed his right to the throne in front of his uncle Pelias (pell-“EYE”-ahs). For 10 points each:

[10] Identify this Greek hero and leader of the Argonauts.

ANSWER: **Jason**

[10] The Argonauts' goal was to obtain this item. The search for this item took the Argonauts from Lemnos to Colchis (COLE-kiss).

ANSWER: **golden fleece**

[10] This woman helped the Argonauts on their quest and eventually married Jason. After Jason left her to marry Glauce (GLAU-kee), she killed Glauce and her own two children.

ANSWER: **Medea**

9. This is a computation bonus. Consider the equation $3x + y = 5$. For 10 points each:

[10] What is the slope of the line represented by that equation?

ANSWER: **-3**

[10] What is the y-intercept of that line?

ANSWER: **5** [or **(0,5)**]

[10] What is the x-intercept of that line?

ANSWER: **5/3** [or **one and two-thirds**; or **one point six repeating**; do not accept or prompt on “1.6”]

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10. Saudi Arabia captured a vulture that they claimed was spying for this agency. For 10 points each:
[10] Identify this foreign intelligence agency, headed by Tamir Pardo, whose focuses include slowing down Iran's pursuit of nuclear power.

ANSWER: **Mossad** [or **Institute for Intelligence and Special Operations**]

[10] Mossad is the national intelligence agency in this country, which is currently headed by Benjamin Netanyahu (NAY-tan-YAH-hoo).

ANSWER: State of **Israel** [or Medinat **Yisra'el**]

[10] Some people have blamed Mossad for creating this computer worm, which attacks Siemens (SEE-mens) control systems. It slowed down Iran's pursuit of a nuclear weapon.

ANSWER: **Stuxnet**

11. In this work, the horse Boxer repeatedly says "I will work harder," but is taken away. For 10 points each:

[10] Name this novel where the pig Napoleon becomes the leader of the title location after his dogs chase away Snowball.

ANSWER: **Animal Farm**

[10] In addition to *Animal Farm*, this author also wrote the novel *Burmese Days* and the essay *Shooting an Elephant*.

ANSWER: George **Orwell** [or Eric Arthur **Blair**]

[10] In this other Orwell work, Winston Smith betrays Julia, and decides he loves Big Brother.

ANSWER: **1984**

12. George Mallory claimed that he wanted to climb this mountain "because it was there." For 10 points each:

[10] Name this peak on the border between Nepal and Tibet, the world's highest.

ANSWER: Mount **Everest** [or **Sagarmatha**; or **Chomolungma**]

[10] Mount Everest is part of this mountain range inhabited by the Sherpa people.

ANSWER: **Himalayas**

[10] The world's second-highest peak is this deadly summit in the Karakorum (kah-rah-KOH-ruhm) Range also known as Mount Godwin-Austen.

ANSWER: **K2**

13. It starts, "the lights go out and I can't be saved." For 10 points each:

[10] What is this song off of *A Rush of Blood to the Head* that repeats the phrase "you are" and closes with "home, home, where I wanted to go?"

ANSWER: "**Clocks**"

[10] "Clocks" is by this band whose other songs include "Strawberry Swing," "The Scientist" and "Yellow." Their lead singer, Chris Martin, is married to Gwyneth Paltrow.

ANSWER: **Coldplay**

[10] Coldplay's most recent studio album features this title song where the singer knows "St. Peter won't call my name" and reflects, "but that was when I ruled the world."

ANSWER: "**Viva La Vida**"

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14. For 10 points each, identify these kinds of plants.

[10] These plants lack vascular tissue, reproduce via spores, have multicellular rhizoids (RYE-zoyds), and include a group called “peat” ones.

ANSWER: **mosses** [or **bryophytes**; or **Bryophyta**]

[10] Spanish moss actually belongs to this phylum of flowering vascular plants, the most diverse group of plants.

ANSWER: **angiosperms**

[10] The pitcher plant and Venus flytrap are examples of plants that have this property of getting nutrients by consuming other organisms, often insects.

ANSWER: **carnivorous** plants [accept word forms; accept **heterotrophic**; prompt on **insectivorous** or word forms]

15. For 10 points each, name these nineteenth- and early twentieth-century art styles.

[10] This artistic movement applies small dots of color onto a canvas to create an image. It is exemplified by Georges Seurat’s *Sunday Afternoon on the Island of La Grande Jatte*.

ANSWER: **pointillism** [prompt on **neompressionism**; prompt on **post-impressionism**]

[10] Led by André Derain and Henri Matisse, this artistic movement emphasized freely-used color and distortion of form. It was named from the French for “wild beast.”

ANSWER: **fauvism** [or Les **Fauves**]

[10] This movement grew out of the earlier Dada movement. It is exemplified by *The Persistence of Memory*, which features melting watches and was painted by Salvador Dali.

ANSWER: **surrealism**

16. For 10 points each, answer the following about a conflict on an Asian peninsula.

[10] In this conflict from 1950 to 1953, the southern half of a certain nation waged war with the northern half.

ANSWER: **Korean War**

[10] Prior to the war, the Korean peninsula was divided along this parallel of latitude, with U.S. forces occupying the southern portion and Soviet troops occupying the northern portion.

ANSWER: **38th parallel** [or **38 degrees north latitude**]

[10] The armistice ending the Korean War created this 2.5-mile-wide buffer zone on the border between North and South Korea.

ANSWER: Korean **Demilitarized Zone** [or **DMZ**]

17. For 10 points each, answer the following about dwarf planets.

[10] Name this recently demoted second largest dwarf planet made up mostly of rock and ice that sometimes comes closer to the sun than Neptune.

ANSWER: **Pluto**

[10] It has been debated whether this largest satellite of Pluto is actually a moon or a dwarf planet.

ANSWER: **Charon**

[10] Dysnomia is the only moon of this largest dwarf planet found in the Kuiper Belt.

ANSWER: **Eris**

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18. He nominated George Washington for Commander-in-Chief of the Continental Army and he later succeeded Washington as President. For 10 points each:

[10] Name this man who served as Washington's Vice President before becoming President in 1797 himself.

ANSWER: John **Adams** [do not accept "John Quincy Adams"]

[10] Adams belonged to this political party created by Alexander Hamilton, which supported a national bank and tariffs.

ANSWER: **Federalist** Party

[10] As President, Adams enacted this set of laws. They include the Naturalization Act, which increased the amount of time it took to become a citizen from five years to fourteen years.

ANSWER: **Alien and Sedition** Acts

19. The most important text of this religion is the Avesta. For 10 points each:

[10] Identify this religion that worships Ahura Mazda. Its name is similar to its primary prophet, who probably lived in the tenth century BCE or earlier.

ANSWER: **Zoroastrianism** [prompt on **Zoroaster**; prompt on **Zarathustra**]

[10] This other religion believes in the unity of faith and mankind and is led from the Universal House of Justice in Haifa, Israel.

ANSWER: **Baha'i**

[10] Zoroastrianism and Baha'i both originated in this country, which is now usually referred to as Iran.

ANSWER: **Persia**

20. Much of their music focused on chivalry and courtly love, typical themes of medieval times. For 10 points each:

[10] Give the term for these musical bards who performed lyrical poetry during the High Middle Ages. Their talents displaced minstrels at many European courts.

ANSWER: **troubadours** [or **trovatores**]

[10] This Paladin, the subject of a namesake song, is best friends with Oliver and is killed at Roncevaux [RON-seh-vo] Pass fighting against Saracens.

ANSWER: **Roland** [accept *The Song of Roland*]

[10] *The Song of Roland* is the national epic of this country, which was historically ruled by such monarchs as Louis XVI.

ANSWER: **France** [or **French Republic**; or **République Française**]

Extra. This musical's songs include "Iowa Stubborn" and "Seventy-Six Trombones". For 10 points each:

[10] Name this Meredith Willson musical about the con man Harold Hill.

ANSWER: *The **Music Man***

[10] In *The Music Man*, Harold falls in love with this librarian.

ANSWER: **Marian** Paroo [prompt on **Paroo**]

[10] Harold teaches Marian's lisping little brother Winthrop this song to help his self-confidence.

ANSWER: "**Gary, Indiana**"