

**2012-13 Governor's Cup Practice Questions
Elementary – Round 4**

1. Archimedes [ark-uh-MEE-deez] measured this quantity by submerging an object in water. What physics quantity, measured in cubic units, describes the amount of space that matter takes up?

VOLUME

2. In six-eight time, one of these groupings might contain twelve sixteenth notes, or two dotted quarters. What type of musical grouping is set off from other similar groupings by namesake lines?

BAR (Accept: MEASURE)

3. In this book, Mrs. Olinski [oh-LIN-skee] chooses "The Souls" to play in an Academic Bowl. Noah, Nadia, Ethan, and Julian become the New York state middle school champions. Identify this 1997 Newbery Medal winner, by E. L. Konigsburg [KON-igs-burg].

(THE) VIEW FROM SATURDAY

4. The problem two plus three has the same answer as the problem three plus two. What property of real numbers, starting with the letter "C", tells us that numbers can be added in any order?

COMMUTATIVE (PROPERTY) (OF ADDITION)

5. This region includes Mammoth Cave and Bowling Green. It comprises the middle part of the state. What is this region named for a plant?

PENNYROYAL (REGION)

6. In this wordless picture book, a dog loses her favorite toy to a bigger dog. Her owner buys her a blue ball to replace her broken red one. Name this 2012 Caldecott winner, by Chris Raschka [ROSH-kuh].

(A) BALL FOR DAISY

7. Mary made 457 bracelets to sell at the school fall festival. Mary sold 327 bracelets at the festival. How many bracelets did Mary have left over after the festival?

130 (BRACELETS)

8. Nonsense syllables such as "fa-la-la" or a very long phrase based on the word "gloria" are often found in these types of lay religious songs. What types of songs, associated with a certain part of the year, include "Ding Dong Merrily on High" and "Angels We Have Heard On High"?

(CHRISTMAS) CAROLS (Accept clear equivalents)

9. This force comes in static and kinetic varieties. Because it converts kinetic energy into heat, engineers often seek to reduce it with lubricants. What is this force which resists motion between two surfaces?

FRICTION

10. This politician was a senator from Mississippi before the Civil War. However, he was born in Kentucky, not far from Abraham Lincoln. Name the first and only president of the Confederacy.

(JEFFERSON) DAVIS

11. Howard has a board that is seven and twelve thirteenths units long. He cuts a piece off, leaving the board two and seven -thirteenths units long. How long was the piece Howard cut off the board?

FIVE AND FIVE-THIRTEENTHS (UNITS)

12. In this poem, the speaker passes, "the school, where children strove / At recess, in the ring." The carriage holds the speaker, Immortality, and Death. Identify this poem by Emily Dickinson.

BECAUSE I COULD NOT STOP FOR DEATH

13. The "single" type of this musical device must have a mouthpiece to vibrate against, while the "double" type uses two that vibrate against themselves. What musical item, often made of cane, is used to produce sound by woodwind instruments?

(SINGLE or DOUBLE) REED

14. This quantity is symbolized by the letter "C" in a famous equation by Einstein. What quantity is measured to be 186,000 miles per second?

(THE) SPEED OF LIGHT

15. This state is the only one not on the North American mainland. It comprises an archipelago [ar-kuh-PEL-uh-goh] formed by a Pacific hotspot. Which state includes the islands of Oahu [oh-AH-hoo] and Maui [MOU-ee]?

HAWAII

16. Divide the following decimals. What is eight point six divided by two?

4.3

17. Examples of this type of rock are slate and marble. Heat and pressure combine to form it. Which type of rock is a combination of sedimentary and igneous [IG-nee-us] rocks?

METAMORPHIC

18. In this book, five-year-old Charles Wallace Murry can read minds. He travels through time and space with his teenage sister, Meg, and their friend, Calvin O'Keefe. Name this Newbery Medal-winning book by Madeleine L'Engle [LEN-gull].

(A) WRINKLE IN TIME

19. These regions are based on longitude relative to Greenwich [GRIH-nij], England. They are coordinated with the Earth's rotation. Give these regions, examples of which are Pacific, Central and Eastern Standard.

TIME ZONES

20. This American populist composer's trip south of the border inspired his El Salon Mexico. He celebrated American figures in works such as Lincoln Portrait and Billy the Kid. Name the composer of Fanfare for the Common Man.

(AARON) COPLAND [COPE-lund]

21. Children's books in this genre [ZHAWN-ruh] include Dude, Where's My Spaceship? and The Time Hackers. Which literary genre often includes aliens, space travel, supernatural activities, and technology?

SCIENCE FICTION

22. Mount Mitchell, the tallest mountain east of the Mississippi River is 6,683 feet tall. To the nearest hundred feet, how tall is Mount Mitchell?

6,700 (FEET) (TALL)

23. The "demi" version of this technique involves only the ball of the foot, while the full version of it makes use of the reinforced end of its namesake shoes. Name this ballet technique, in which a dancer performs standing on the toes.

(EN) POINTE [ahn PWAHN] (Accept: (ON) POINT or POINTE (SHOES))

24. These clouds take their name from the Latin word for "a curling lock of hair." They often indicate the arrival of precipitation, and exist at high altitudes. Identify this type of cloud with a white, wispy appearance.

CIRRUS (CLOUDS)

25. This explorer fled his creditors on Hispaniola [his-pun-YOH-luh] for Central America in 1508. There, he became part of an expedition to cross Panama. Who was the first known European to see the Pacific?

(VASCO NUÑEZ DE) BALBOA [VAHS-koh NOO-nyez deh bahl-BOE-uh]

26. He was one of the first to attempt to notate classical dances, though he is best remembered for his contributions to classical dance technique. Name this 17th-century French ballet master, who codified the five foot positions of ballet.

(PIERRE) BEAUCHAMP [boh-SHAHN]

27. In this folk tale, a young boy sells his mother's cow, which no longer gives milk. He steals a hen who lays golden eggs, and encounters a giant. Which folk tale centers on a boy climbing a tall plant?

JACK AND THE BEANSTALK

28. It is the name of the arm of the Milky Way Galaxy in which our solar system is located. What name in astronomy is shared with a constellation known as the "hunter," which has a namesake "belt"?

ORION

29. This Portuguese explorer sailed for Spain. He was killed in the Philippines, and four of his five ships were lost, but one completed the journey. Identify the navigator whose crew was the first to sail around the world.

(FERDINAND) MAGELLAN

30. Two friends, Betty and Alice are in line at the fair to ride the Ferris wheel. Betty and Alice weigh 40 pounds 9 ounces and 50 pounds 7 ounces respectively. If the ride has a weight limit for 2 people per car of 100 pounds, how far under the weight limit are the two friends?

9 POUNDS (UNDER THE LIMIT)

End of first half – begin Inquiry Period

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1. In a 2008 Royal Shakespeare Company production, David Tennant played this character opposite Patrick Stewart, who was Claudius. What Shakespearian protagonist, who wishes to kill his uncle to avenge his father, delivers the “to be or not to be” soliloquy [suh-LIL-uh-kwee] in the play that bears his name?

(PRINCE) HAMLET (OF DENMARK)

2. In this nursery rhyme, people build the title structure out of wood and clay. They later build it from bricks and mortar, iron and steel, and silver and gold. Name this rhyme about a collapsing British landmark.

LONDON BRIDGE IS FALLING DOWN

3. The gable end of a house is shaped like a triangle. The base of the gable is 15 units and the height is 8 units. What is the area of the gable end of the house?

60 SQUARE UNITS (ACCEPT: UNITS SQUARED)

4. This agreement did not set up an executive branch, and gave the federal government very little power. It was soon replaced by the Constitution. What was the first plan of government for the United States?

ARTICLES OF CONFEDERATION

5. This system includes the esophagus and the salivary glands. It ends at the rectum. What body system is responsible for breaking down and absorbing food?

DIGESTIVE (SYSTEM)

6. As a verb, this word means "to stretch one's neck." One noun version describes "a device for lifting and moving heavy things." Identify this word, which also describes the paper birds Sadako [suh-DAH-ko] makes in an Eleanor Coerr [KUR] novel.

CRANE

7. On one of these devices, the length of time that the aperture remains open is known as the “shutter speed.” Name this device used by Robert Capa, Margaret Bourke-White, and Mathew Brady, whose modern “digital” type is often measured in megapixels.

CAMERA

8. Quadrilateral ABCD is congruent to quadrilateral WXYZ. The measure of angle BAD is 49 degrees. In degrees, what is the measure of angle XWZ?
- 49 (DEGREES)
9. Some protozoa [PROH-toh-zoh-ah], plants, and fungi use these cells. They are adapted for survival and dispersal in unfavorable conditions. Name these reproductive structures.
- SPORES
10. This prolific inventor was known as "The Wizard of Menlo Park." Among other things, he developed the stock ticker, direct current, and phonograph. Which inventor is given credit for the light bulb?
- (THOMAS) EDISON
11. Frida Kahlo [FREE-duh KAH-loh] created several of these works involving monkeys, while M.C. Escher used a reflective sphere for one of his. Van Gogh's best known one shows him with a bandaged ear. In what artworks do artists portray themselves?
- SELF-PORTRAITS
12. Soldiers must swear an oath not to desert the military. Which word in the previous sentence can be pronounced differently to mean "a dry place"?
- DESERT
13. The worker form of this insect feeds the larva a substance called royal jelly. Other forms include the drones and the queen. What insect is responsible for pollinating many plants, and is thus very valuable?
- (HONEY)BEE
14. This document went into effect on March 4, 1789. It includes a preamble, seven articles, and twenty-seven amendments. What is this supreme law of the United States?
- (UNITED STATES) CONSTITUTION
15. Write down the following 5 numbers: 2, 5, 6, 8, 9. What is the range of this set of numbers?
- 7 (ACCEPT: TWO TO NINE)
16. A snail is trying to crawl across a 64 foot wide room. On the first 3 days the snail crawled 32 feet, 16 feet and 8 feet. Following this pattern, how many feet will the snail crawl on the fifth day?

2 (FEET)

17. Four species of this mammal exist, and are found in Australia, New Guinea, and Tasmania. The mammal is considered a monotreme [MON-uh-treem], and it resembles a hedgehog. Identify this mammal that lays eggs instead of bearing live young.

ECHIDNA [ih-KID-nuh] (Accept: SPINY ANTEATER)

18. In mathematics, this punctuation mark can signify multiplication. In printing, it can indicate omitted letters or ungrammatical phrases. Identify this punctuation mark, whose name means "little star."

ASTERISK

19. One early major work by this artist is a peasant scene titled The Potato Eaters. What Dutch artist, who painted his injured self in Self-Portrait with Bandaged Ear, also painted The Starry Night?

(VINCENT) VAN GOGH

20. This crime is defined as an extreme act against one's own nation. It was committed by Benedict Arnold, whose name has become attached to it. What offense does a traitor commit?

TREASON

21. Identify the object of the preposition in the following sentence: The cat chased the squirrel up the tree.

TREE

22. In any triangle the measures of the three angles have a sum of 180 degrees. Suppose there is a triangle where one angle measures 45 degrees and another angle measures 55 degrees. In degrees, what is the measure of the third angle?

80 (DEGREES)

23. In economics, these items are often contrasted with services. Unlike services, they are tangible commodities. What are these objects, the wants and needs of consumers?

GOODS

24. One type of this activity, the hikuli [hee-KOO-lee], is done under the influence of peyote [pay-OH-tee]. What type of Native American ritual activity is also represented by the rutuburi [roo-too-BURR-ee], which might be done to bring rain?

(RAIN) DANCE

25. Part of this organ is divided into four “lobes,” including the frontal and temporal. It includes the medulla oblongata [muh-DUHL-uh ah-blung-GAH-tuh], cerebellum [ser-uh-BEH-lum], and cerebrum [suh-REE-brum]. What organ, is popularly called the body’s “gray matter”?

BRAIN

26. Give the adjective clause in the following sentence: The vegetables that people leave uneaten are good sources of vitamins.

THAT PEOPLE LEAVE UNEATEN

27. In 2008, a team coached by this man lost the NCAA title to Kansas in overtime. He avenged that loss in 2012. Name this former coach of the Memphis Tigers basketball team, and current coach of the Kentucky Wildcats.

(JOHN) CALIPARI

28. The ratio of chocolate to peanut butter in a certain candy is one to four. An extra large bag of this candy has 10 units of chocolate. How many units of peanut butter are in the bag?

40 (UNITS)

29. These scientists often use sketching tools to document their observations of rocks and minerals. Identify the term for scientists who study the solid materials that make up the earth.

GEOLOGISTS

30. This sculpture was given to the United States by France. It holds a torch and a tablet. What green statue stands in New York harbor?

(STATUE OF) LIBERTY

End of second half – begin Inquiry Period

Extra Questions

M-1 Divide the following decimals. One point two divided INTO one point four four.

1.2

SC-2 He was the oldest of the Mercury Seven astronauts. Name this former Ohio senator who became the first American in space, in 1962, then became the oldest person in space, in 1998.

(JOHN HERSCHEL) GLENN (JR.)

SS-3 This country is sometimes referred to as the Land of the Rising Sun. In March 2011, it suffered an earthquake and a nuclear disaster. What is this East Asian island nation with its capital at Tokyo?

JAPAN

H-4 This only piece that this ballerina ever choreographed was titled Autumn Leaves. What dancer, whose later life included numerous solo tours, was from 1906 to 1913 the prima ballerina of the Russian Imperial Ballet?

(ANNA) PAVLOVA [PAV-luh-vuh]

LA-5 This young orphan lives in Beldingsville, Vermont with her Aunt Polly. She frequently plays the "Glad Game," in which she finds something good in any situation. Name this relentlessly cheerful girl, created by Eleanor H. Porter.

POLLYANNA