

**2012-13 Governor's Cup Practice Questions
Elementary – Round 1**

1. A scale measuring this property of matter was devised by Friedrich [FREE-drik] Mohs in 1812. On that scale, talc has a measure of one, the lowest, while diamond has a measure of ten, the highest. What property determines how easy it is to scratch the surface of a substance?

HARDNESS

2. A musician with "perfect" this can correctly identify one by itself, with no other reference point. What element of music generally refers to the highness or lowness of a sound?

PITCH

3. In this book, Asher becomes Assistant Director of Recreation, while Fiona becomes Caretaker of the Old. Jonas sees color after the Committee of Elders assigns him to be Receiver of Memory. Name this Newbery Medal-winning book by Lois Lowry.

(THE) GIVER

4. The name of this city sounds like that of a German financial center. It is located in Franklin County. Name the Kentucky state capital.

FRANKFORT

5. Write down the following number: twelve point five seven nine. What place is the "seven" in?

HUNDREDTHS

6. A solemn, slow "march" for this occasion is the second movement of Beethoven's "Eroica" [eh-ROE-ih-kuh] symphony. The Mass for what type of event is known as a requiem [RECK-wee-um]?

FUNERAL (Accept clear equivalents)

7. Examples of this type of energy include electric, chemical, and gravitational. It is the energy found in a system due to its position or arrangement. Name this type of energy which contrasts with kinetic.

POTENTIAL (ENERGY)

8. In this 2010 Caldecott-winning book, one animal sits in another's muddy pawprint. It uses only pictures to retell an Aesop [EE-sop] fable about repaying kindness. Identify this Jerry Pinkney book about the "King of the Jungle" and a rodent.

(THE) LION AND THE MOUSE

9. The distributive property can make it simple to multiply quickly. Use the distributive property, or any other method you choose to find the product of 6 and 72.

432

10. This royal order helped spark the American Revolution. It reserved most of British North America, including Kentucky, for the natives. Identify this law, meant to keep settlers east of the Appalachians.

PROCLAMATION OF 1763

11. Adelaide Crapsey developed this five-line poetic form. Which type of poem has two syllables in its first and last lines, and four, six, and eight syllables in the middle lines?

CINQUAIN [SING-keyn]

12. Debbie and Donny bought a pizza to share. Debbie ate two-fifths, and Donny ate one-fifth of the pizza. What fraction of the pizza did they eat combined?

THREE-FIFTHS (UNITS)

13. Examples of this flow of particles include X-rays, heat rays and light rays. We are constantly being bombarded with it. What do we call this flow of particles, which, in the case of nuclear fallout, can be deadly?

RADIATION

14. J.S. Bach's Goldberg Variations were originally written for this instrument, which is related to both the virginal and the spinet [SPIN-it]. Name this keyboard instrument popular in the Baroque [buh-ROHK] period, which produces sound by plucking strings.

HARPSICHORD

15. Tributaries of this waterway include the Ohio and the Missouri. It starts in Minnesota, and flows past several states before emptying in the Gulf of Mexico. Name this river, the longest in the United States.

MISSISSIPPI (RIVER)

16. Add the following decimals. What is five point two plus four point three?

9.5

17. Despite claims made in a Peter Schaeffer play, this composer and Antonio Salieri [sahl-YARE-ee] were actually good friends. What classical period composer, whose operas include The Barber of Seville and The Magic Flute, is the subject of the play Amadeus [am-uh-DAY-us]?

(WOLFGANG AMADEUS) MOZART

18. Due to its sharp edges, this rock has made arrowheads and scalpel blades. It is mostly silica, but iron and magnesium give it a black, shiny appearance. Give this extrusive igneous [IG-nee-us] rock, a type of volcanic glass.

OBSIDIAN [uhb-SIHD-ee-uhn]

19. In this book, a four-year-old boy lives with Spiker and Sponge after an escaped rhino eats his parents. When the boy travels inside an oversized fruit, he meets a Centipede, an Earthworm, a Ladybug, and Miss Spider. Name this children's novel by Roald Dahl [ROW-uhl DOLL].

JAMES AND THE GIANT PEACH

20. This process is used to obtain copper, coal and other materials. Two types include underground and mountaintop removal. By what process are minerals extracted from the ground?

MINING (Accept other forms of the word)

21. A child uses this literary device when he says, "I have a million things to do," or, "I'm so hungry I could eat a horse." Identify this device, which uses exaggeration for comic effect.

HYPERBOLE [hi-PER-buh-lee]

22. Contrasts in this element of dance include smooth versus angular, light versus heavy, and loose versus tight. What element of dance refers to the amount of tension and pressure used by a performer?

ENERGY (Accept: FORCE)

23. Examples of this meteorological concept include tropical wet, Mediterranean, and tundra. It encompasses long term patterns in temperature, air pressure, and humidity, among other factors. Name this term for the weather averaged over a long period.

CLIMATE

24. Randy earned money over the summer mowing lawns. He saved four hundred twenty nine dollars and seventy five cents. To the nearest ten dollars, how much money did Randy save?

430 (DOLLARS)

25. This colony was governed by a viceroy from Mexico City. It covered modern-day Central America, Texas, and California. Name this colony founded after its namesake country conquered the Aztecs.

NEW SPAIN

26. Aaron Copland [COPE-lund] referred to Appalachian Spring as simply "Ballet for" her while working on it, and it was she who would later suggest the title. Name this American dancer and influential creative force in the modern dance movement.

(MARTHA) GRAHAM

27. According to legend, this frontiersman could stick an axe in a tree trunk, fire at its blade, and split a bullet in two. He wore a coonskin cap, and became known as the "King of the Wild Frontier." Name this American hero, who died at the Alamo.

(DAVY) CROCKETT

28. At its equator, this planet's circumference is about 25,000 miles, and light from the sun takes about 8 minutes to reach it. It is the only planet in the solar system to have a single moon. Name this planet, which also has naturally occurring liquid water.

EARTH

29. Little is known about this man's childhood, so people like Parson Weems made up stories.. As an adult, he led the American military during the Revolution. Identify the first president of the United States.

(GEORGE) WASHINGTON

30. Richie gets his height measured every year on his birthday. This year he was measured to be exactly 5 feet tall. How tall is Richie in inches?

60 (INCHES)

End of first half – begin Inquiry Period

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1. A Civil Rights activist delivered this speech from the Lincoln Memorial's steps. In it, he describes a nation where his children "will not be judged by the color of their skin but by the content of their character." Name this anti-discrimination speech by Martin Luther King, Jr.

I HAVE A DREAM

2. Composer Peter Maxwell Davies [DAY-veece] is currently the "Master" of this person's music. In Britain, for whom is an actor, artist, or musician performing if they are giving a "command" performance?

(QUEEN) ELIZABETH (THE SECOND) (Accept any reasonable equivalent, such as ROYALTY)

3. Jill has a room that is 8 units by 7 units. She wants to run a string of Christmas lights one time around the room. What is the minimum length, in units, of the string of lights if it goes around the entire room only once?

30 (UNITS)

4. These organelles have their own genetic code. They provide the cell with energy, and are sometimes called the "cellular power plant." Give these organelles, which look somewhat like a sneaker print.

MITOCHONDRIA (ACCEPT: MITOCHONDRION)

5. This man led the capture of Fort Ticonderoga [tie-kon-duh-ROH-guh] and won the Battle of Saratoga [sar-uh-TOE-gah]. However, he was later humiliated and defected to the British. Identify this Revolutionary War general whose name is synonymous with traitor.

(BENEDICT) ARNOLD

6. A da Vinci drawing showcasing this design element depicts the relation of a certain figure to both a circle and a square. What element of design, exemplified in Vitruvian [vih-TRUE-vee-un] Man, refers to the ratio or relationship between two parts, or between a part and the whole?

PROPORTION

7. Along with xylem [ZY-luhm], this tissue is one of two types that vascular plants use for transport. In trees, it is the innermost layer of the bark, from which it derives its name. Identify this tissue, whose primary purpose is to transport nutrients and sucrose.

PHLOEM [FLOW-ehm]

8. As a noun, this word names the rough covering of a tree trunk. What word also describes the abrupt, harsh sound a dog makes?

BARK

9. This clergyman became involved in civil rights with the Montgomery bus boycott. He received the Nobel Peace Prize, and was assassinated in 1968. Name this activist who delivered the "I Have A Dream" speech.
- (DR. MARTIN LUTHER) KING (JR.)
10. Triangle ABC is congruent to triangle XYZ. Which side in triangle XYZ has the same length as side AB from triangle ABC?
- (SIDE) XY
11. A repurposed urinal, titled "Fountain," is one of this art style's most recognizable works. This style of Marcel Duchamp [mar-SEL dyoo-SHAHN] and Man Ray used "readymade" pieces, and flouted convention. Name this post-World War One style of "anti-art."
- DADA(ISM) (Accept other forms of the word)
12. Correct the grammatical error, if one exists, in the following sentence: "Who do you think is the best artist?"
- CHANGE "WHO" TO "WHOM" (Accept: EQUIVALENT ANSWERS)
13. In arthropods, this structure is made up of a hard substance called chitin [KIGH-tun]. The structure must be molted regularly as the animal grows. What name is given to the hard outer covering that protects insects and spiders?
- EXOSKELETON [eck-soh-SKEH-luh-tun]
14. The person holding this federal office can veto bills and is the nation's commander-in-chief. The office is the head of the executive branch of the federal government. What political position is held by Barack Obama?
- PRESIDENT (OF THE UNITED STATES)
15. Tommy has a fair six sided die with the numbers one to six on the faces. Tommy rolls the die one time. As a fraction, what is the probability that he rolls the number two?
- ONE-SIXTH
16. A depiction of a contemplative Dante before the Gates of Hell was the original conception behind this work of art. Name this work by French sculptor Auguste Rodin [roh-DAN], which depicts a seated figure with his chin on his fist.
- (THE) THINKER
17. A sequence of numbers starts with 5 and follows the rule of ADD THREE. What would be the fifth number in the sequence?

18. According to folklore, this amphibian will not burn up when placed in a fire. Its larval stage may last up to three years, and some adults still have external gills. What type of amphibian includes mud puppies, hellbenders, and newts?

SALAMANDER

19. After what word should you put a semicolon in the following sentence? After I finish my dinner, I'll help you with your homework; I give you my word.

HOMEWORK

20. This amendment outlines citizenship in the United States. Passed during Reconstruction, it also includes the equal protection clause. Name this Constitutional amendment.

FOURTEENTH (AMENDMENT) (Accept: (AMENDMENT) FOURTEEN)

21. "Happily," "quickly," and "knowingly" are all this part of speech. What part of speech, which usually ends in -ly, modifies adjectives and verbs?

ADVERB

22. Axons, synapses [sɪh-NAP-seez], and dendrites are among the structures that make up this system of the body. What body system, which is the only one to contain neurons, transmits signals throughout the body?

NERVOUS (SYSTEM)

23. French artisan Thomas Germain [zhər-MAHN] was an exceptional one of these craftsmen. It was also the first profession of Paul Revere. What profession involves the working and engraving of the metal whose atomic symbol is A-G?

SILVERSMITH (Accept other forms of the word)

24. In the past, this eight-letter economic term may have referred to grain or precious metal. Modern examples of this include the euro and the dollar. What eight-letter word refers to the accepted medium of exchange for a society?

CURRENCY (Not: MONEY)

25. There is a certain number. If you multiply it by 4, you get 96. If you double that number, you get 48. What is this number?

24

26. According to legend, this symbol was first sown by Betsy Ross. It is composed of fifty white stars on a blue background, and thirteen red and white stripes. Name this national symbol of the United States.

FLAG (OF THE UNITED STATES)

(Accept clear alternatives, such as OLD GLORY, AMERICAN FLAG, STARS AND STRIPES, etc.)

27. An example of this sentence structure is, "Because I could not stop for death, he kindly stopped for me." What type of sentence contains an independent clause and one or more dependent clauses?

COMPLEX (SENTENCE)

28. Aristotle developed this series of techniques to help real-world findings support ideas. Scientists first develop a hypothesis, then conduct experiments to see whether the results support their initial prediction. Identify this step-by-step process of systematic observation.

SCIENTIFIC METHOD (Accept: SCIENTIFIC INQUIRY or SCIENTIFIC PROCESS)

29. As of July 2012, these characters will no longer appear in Chick-Fil-A's kids meals. What characters, created in the mid-1950s by Jim Henson, include Gonzo and Miss Piggy?

(THE) MUPPETS

30. Kayla has a collection of 350 silly bands. 50 percent of her collection are animal shapes. How many animal shaped silly bands are in Kayla's collection?

175 (SILLY BANDS)

End of second half – begin Inquiry Period

Extra Questions

SS-1 Called “the loneliest millionaire” by one of his biographers, he made a fortune selling explosives in the 19th century. What inventor of dynamite would later lend his name to the creation of an annual “peace prize”?

(ALFRED BERNHARD) NOBEL

M-2 Consider the numbers 12 and 8. What is the least common multiple of these two numbers?

24

SC-3 This digital device is akin to a large iPod or iPhone. It consists largely of its 9.7 inch touch screen. Name this tablet computer sold by Apple Inc.

iPAD

LA-4 This writer's early books include *Space Station Seventh Grade* and *Who Put That Hair in My Toothbrush?* Later, he wrote *Knots in My Yo-Yo String* and *Stargirl*. Who won the 1990 Newbery Medal for *Maniac Magee*?

(JERRY) SPINELLI

H-5 Wooden ones of these musical implements may be used when an extremely loud and violent timpani sound is desired. Ones used for marimba are commonly wrapped in yarn. What are these implements for striking various percussion instruments?

MALLETS (Not: STICKS)