

**2012-13 Governor's Cup Practice Questions
Elementary – Round 3**

1. An “internal engine” of this type powers your family’s car. Which chemical reaction usually combines fuels to produce heat and light?

COMBUSTION (Do not accept: BURNING)

2. If four of these musical markings are used in a key signature, they will affect D, A, E, and B. What type of accidental indicates a pitch is to be played one half-step lower?

FLAT

3. In this book, Jack's father grounds him for shooting a Japanese sniper rifle. Jack helps his neighbor, Mrs. Volker, write obituaries for his hometown's founders. What semi-autobiographical book won Jack Gantos the 2012 Newbery Medal?

DEAD END IN NORVELT

4. This region borders both West Virginia and Virginia. It is known for its fossil fuel deposits. Identify this Kentucky region, a part of Appalachia.

EASTERN (MOUNTAIN) COAL FIELD(S) (REGION)

5. Write down the following number: one, two, three, comma, four, five, six, comma, seven, eight, nine. What place is occupied by the number five?

TEN-THOUSANDS

6. In this book, three fairy tale characters meet a dragon and a cat with a fiddle. After riding around on a paper airplane, they live happily ever after in a brick house. Name this David Wiesner [WEEZ-ner] book, whose heroes survive the Big Bad Wolf.

(THE) THREE PIGS

7. John earns \$10 per hour for the first 40 hours he works in a week. He earns \$15 per hour for any hours over 40 hours in a week. What will be John's total pay for a week in which he worked 45 hours?

475 DOLLARS

8. Musical instruments native to this continent include the mbira [em-BEER-uh] and the slit and talking drums. What continent's instruments also include the djembe [JEM-beh]?

AFRICA

9. Several of this machine can be combined to make a block and tackle system. It is essentially a rope around a wheel and axle, allowing the user to lift very heavy loads easily. What is this simple machine?

PULLEY

10. Throughout his term in office, he worked fervently to hold the United States together. He was assassinated by John Wilkes Booth. Who was the 16th president of the United States?

(ABRAHAM) LINCOLN

11. In this book, the title character's heart is "two sizes too small." He steals Whoville's presents and Roast Beast, but he can't steal the town's happiness. Name this holiday story, by Dr. Seuss.

HOW THE GRINCH STOLE CHRISTMAS

12. Katie had seven ninths of her birthday cake left after the party. She then gave five-ninths of the cake to her sister. What fraction of the cake does Katie have left?

TWO-NINTHS (UNITS)

13. One predecessor of this modern instrument was the sackbut [SACK-butt]. Modern ones may have an F attachment, and their most recognizable sound is known as a glissando [gliss-AHN-doh]. What brass instrument is played by moving a long slide?

TROMBONE

14. This quantity is -273.15 degrees Celsius and -459.67 Fahrenheit. What two-word phrase refers to the temperature at which a thermodynamic system has the least energy?

ABSOLUTE ZERO

15. This state is the largest in terms of land area in the U.S. It borders the Pacific Ocean, Canada and the Arctic Ocean. Name this state, from which Russia can be seen.

ALASKA

16. Examples of this type of rock are granite and obsidian [ub-SID-ee-un]. It forms when magma and lava solidify. Name this type of rock, the counterpart of sedimentary and metamorphic.

IGNEOUS [IG-nee-us]

17. In this book, five children discover golden tickets to tour a candy-making plant. Oompa-Loompas sing songs about greedy children, and Willy Wonka chooses the title boy to take over the business. Identify this Roald Dahl [ROW-uhl DOLL] novel.

CHARLIE AND THE CHOCOLATE FACTORY

18. Multiply the following decimals. What is three times four point two?

12.6

19. Songs from this opera include My Man's Gone Now, It Ain't Necessarily So, I Got Plenty O' Nuthin', and Summertime. The opera featured a cast of African-Americans, who lived on Catfish Row. Name this opera by George Gershwin.

PORGY AND BESS

20. This group was founded in Switzerland by Jakob Ammann [AHM-ahn]. They are notable for not using modern technology and shunning disobedient members. Identify this religious group who dress in simple, black clothing.

AMISH

21. Books in this genre [ZHAN-ruh] include Ordinary Genius: The Story of Albert Einstein, and The Story of Walt Disney. In what kind of book does the author write about another person's life?

BIOGRAPHY

22. Gina received 47 dollars from her grandfather for a birthday present. Gina also got 42 dollars from her aunt. Rounded to the nearest ten dollars, how much total money did Gina get on her birthday?

90 (DOLLARS)

23. She is given the titular gift by her godfather, Drosselmayer [DROSS-ul-my-er], and uses her shoe to help that gift in its fight against the Rat King. Name this girl who is then taken by the Prince to the Land of Sweets in The Nutcracker.

CLARA

24. These clouds look like cottonballs, and gazers often notice shapes within them. They indicate rising air drafts, thermals, and the arrival of other types of clouds. Give this type of cloud with a white, puffy appearance.

CUMULUS (CLOUDS)

25. This island was originally settled by the Inuit [IN-oo-it] before the Norsemen showed up around 900 A.D. Erik the Red played a large part in its settlement. What is the world's largest island?

GREENLAND

26. Davy Crockett described this legendary pioneer as "half horse and half alligator." He grew up in Pittsburgh before becoming a navigator on the Ohio and Mississippi Rivers. Which folk character became associated with the keel boat?

(MIKE) FINK

27. He achieved directorial success on Broadway with *Fiddler on the Roof*, which he also choreographed. Name this choreographer who partnered with Leonard Bernstein [BERN-stine] to create *Fancy Free* and *On the Town*.

(JEROME) ROBBINS (Accept: (JEROME) RABINOWITZ)

28. In 2011, NASA launched the Juno probe, which will eventually orbit this planet. The planet's moons include Europa, Io [EYE-oh], and Ganymede [GAN-uh-meed]. What planet, which contains the Great Red Spot, is the solar system's largest?

JUPITER

29. Jimmy, and Johnny decide to make the world's largest cookie. For the recipe Jimmy puts in 3 quarts of milk; and Johnny puts in 1 gallon of milk. In pints, how much total milk did they put in the recipe?

14 (PINTS)

30. This explorer was the first governor of Puerto Rico. He also led a Spanish expedition, supposedly in search of the Fountain of Youth. Who was the first known European to set foot in Florida?

(JUAN PONCE) DE LEON [WAHN POHNCE day LAY-on]

End of first half – begin Inquiry Period

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1. Angie's living room is a square that is 12 units on a side. She wants to carpet the entire room. How many square units of carpet will she need?

144 (SQUARE UNITS)

2. In a "theater in the round," this group of people surrounds the stage. Playwrights are often advised to think of their "intended" one. What term refers to the group of people to whom a play or production is presented?

AUDIENCE

3. In this fairy tale, a miller's daughter must spin roomfuls of straw into gold. An impish creature helps her, in exchange for her jewelry and the promise of her first-born child. Identify this Brothers Grimm story, in which the woman keeps her child by correctly guessing the creature's name.

RUMPELSTILTSKIN

4. This cellular component is found in both prokaryotic and eukaryotic cells. It uses RNA to assemble amino acids into proteins. What is this cellular component, not quite an organelle?

RIBOSOME

5. This war was caused largely by the impressment of American sailors. Battles included Horseshoe Bend, New Orleans, and the burning of Washington. What war between the United States and Britain resulted in a stalemate?

WAR OF 1812

6. A line of symmetry divides a figure into two parts that are mirror images of each other. How many lines of symmetry does a capital letter T have?

ONE

7. As a verb, this word means "to move along the border of" or "to avoid." Which word, as a noun, refers to "the part of a dress that extends downward from the waist"?

SKIRT

8. First and last name required. Elected in 1960, he is the only Catholic to ever serve as president. He handled the Cuban missile crisis, and was assassinated by Lee Harvey Oswald. Identify the 35th president of the United States.

JOHN (FITZGERALD) KENNEDY (Accept: JACK KENNEDY, JFK)

9. In the 16th century, these works of art were often destroyed by namesake “clasts.” What term, used to describe pieces of artwork featuring holy persons, can also mean the small images used to represent a computer program or file?

ICONS

10. Plants consumed in this stage of their development include sunflowers and corn. Found in flowering plants, they come in varieties such as fruits, nuts, and even cones. Name these small embryonic plants, with a coating and stored food.

SEED

11. Camille Pissarro [pih-SHR-oh] was an early adopter of this artistic style, which took its name from a painting of the breaking dawn. Others associated with it include Paul Cézanne [say-ZAHN] and Pierre Renoir [run-WAHR]. Name this late 19th- and early 20th-century French painting style, championed by Claude Monet [moh-NAY].

IMPRESSIONISM (Accept other forms of the word)

12. In its gradual form, this process goes through three stages: egg, nymph, and adult. In its complete form, the four stages are egg, larva, pupa, and adult. In what process do you see the changes of an insect as it becomes an adult?

METAMORPHOSIS [met-uh-MAWR-fuh-sis]

13. Multiple answer required. The flimsy sapling was no match for the strong wind. Identify the two antonyms in the preceding sentence.

FLIMSY, STRONG

14. This body consists of 535 members. It has two parts: the House of Representatives and the Senate. What is the legislative branch of the United States' federal government?

(UNITED STATES) CONGRESS

15. You are given a set of data. You put the data in order from least to greatest. What name is given to the number that occurs most frequently in the data set?

MODE

16. At the beginning of the 20th century, only 23 members of this species were known to exist in the wild. By the end of the century, there were 2,500 in

Yellowstone National Park alone. What large hoofed mammal provided not only meat and clothing but many other necessary materials for Native Americans?

BISON (Accept: BUFFALO)

17. During trick or treat, Mrs. Wilson started with 100 pieces of candy. She gave two pieces of candy to each child who came to her house. How many pieces of candy did Mrs. Wilson have left after the tenth child left her house?

80 (PIECES) (OF CANDY)

18. I had the following for lunch: chicken tenders, corn, baked beans, and mashed potatoes. In the previous sentence, what punctuation mark should precede the list?

COLON

19. In the center of one work by this artist, a man in pale yellow and a man in a black coat with a red sash lead a military procession through a darkened street. Name the master Dutch artist who painted The Night Watch.

REMBRANDT (VAN RIJN)

20. This amendment, part of the Bill of Rights, prevents against excessive bail. It also protects convicted people from "cruel and unusual punishment." Identify this Constitutional amendment.

EIGHTH (AMENDMENT) (Accept: (AMENDMENT) EIGHT)

21. Examples of this type of pronoun include I, her, and they. What type of pronoun replaces a person in a sentence?

PERSONAL (PRONOUN)

22. In some West African cultures, masters of this type of instrument pass theirs to their protégé upon their death, though they are buried with their sticks. What type of instruments are the dunun [DUHN-uhn] and the djembe [JIM-bay]?

DRUMS (Accept: PERCUSSION (INSTRUMENT(S)))

23. Its name comes from the Greek word for "dried." In an adult human body, it is made up of 206 parts. What term is given to the complete bone structure of the body?

SKELETON (Accept: SKELETAL SYSTEM)

24. This economic measure is sometimes referred to as "being in the black." It is found by subtracting all costs from all revenue. Give this measure which indicates how much money a business makes.

PROFIT

25. Two angles are supplementary if their sum is 180 degrees. Suppose an angle measures 75 degrees. How many degrees are in its supplement?

105 (DEGREES)

26. Classify the following sentence according to purpose: "After I did my homework, my friends and I went out for ice cream."

DECLARATIVE (SENTENCE)

27. In 1948, this man was assassinated by Nathuram Godse [nah-THUR-um GOD-seh]. What spiritual and political leader is known for using nonviolent protest to achieve independence for India?

(MAHATMA or MOHANDAS (KARAMCHAND)) GANDHI

28. On a map, one inch represents 10 miles. On the map, two cities are 8 inches apart. In miles, how far apart are the cities?

80 (MILES)

29. She was born Elizabeth Griscom. She was a Quaker who lived near Philadelphia at the time of the Revolution. Name this woman who, according to legend, designed the American flag.

(BETSY) ROSS

30. These scientists may research global warming and track severe storms. Most commonly, they forecast the weather for local or national news stations. What type of scientist studies the atmosphere?

METEOROLOGIST(S)

End of second half – begin Inquiry Period

Extra Questions

SC-1 He discovered the law of the pendulum by observing a chandelier swinging in an Italian cathedral. Who was the first astronomer to use a telescope?

GALILEO (GALILEI) (Accept either or both)

M-2 Janie tells Hannah that any division problem involving fractions must have a fraction for an answer. Show Janie she is wrong. What whole number results when three and seven-ninths is divided by one-thirty sixth?

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SS-3 This man was killed by Seal Team Six in 2011. He was one of the masterminds behind the September 11 attacks. Identify the head of al-Qaeda. [owl KYE-duh]

(OSAMA) BIN LADEN

H-4 This word follows “Bolshoi” [BOLE-shoy] and Marinsky [mah-RIN-skee] in the names of famous companies associated with this type of dance. Major musical works for what dance style include Tchaikovsky’s [h-KOFF-skeez] Swan Lake and Sleeping Beauty?

BALLET

LA-5 This writer’s first book was And to Think That I Saw It on Mulberry Street! He explored environmental issues in The Lorax, but returned to lighter themes with Fox in Socks and Yertle the Turtle. Who created the Grinch, Horton, and the Cat in the Hat?

(DOCTOR) SEUSS (ACCEPT: (THEODOR) GEISEL)