2015 SAGES: Spring Academic Game for Elementary Students

tournament written by Alex Dzurick, Audrey Bush, Matt Chalem, James Collier, David Dennis, Charles Hang, Sam Haynes, Spencer Johnson, Jason Loy, Ryan Kennedy, Jared Lockwood, Jack Miller, Luke Schuster & Belle Stanfield

Round 8

1. This man's article "The Gospel of Wealth" advocated for the rich to donate money, which this man did to found over 2,000 libraries, a music hall and a Pennsylvania university. J.P. Morgan bought this man's company and merged it to form US Steel. For 10 points, name this Scottish-American industrialist.

ANSWER: Andrew Carnegie

2. COMPUTATION: McKenna is teaching a FACS class, and they are sewing gym bags. They need to find how many gym bags they can make from 15 yards of fabric. If a gym bag takes 3/4 of a yard, McKenna can divide 15 by 3/4 to find, for 10 points, what number of gym bags her class can make?

ANSWER: 20 gym bags

3. Repeating this elementary operation is referred to as exponentiation. The identity number for this operation is 1. Often, this mathematical operation is written without using any symbol or just a dot. For 10 points, name this mathematical operation that results in a product which is sometimes called "times."

ANSWER: <u>multiplication</u> [accept word forms such as <u>multiplying</u>]

4. In one book about this event, Annemarie pretends that her friend Ellen is her sister Lise. Another book about this event tells the story of the Frank family's hiding from Nazis in an attic. For 10 points, name this historic event in books like *Number the Stars* and the *Diary of a Young Girl* by Anne Frank.

ANSWER: the **Holocaust** [accept **Shoah**; prompt for more information on **World War II**]

5. Osmium has the highest value for this of all the elements. This measurement has an SI unit of kilograms per cubic meter. A neutron star has a high value of this. For 10 points, name this measurement which is equal to mass divided by volume and is the reason why things sink or float.

ANSWER: density

6. This Greek hero and demigod was the son of Zeus and Danae. He borrowed weapons and equipment from Zeus, Hermes and Athena to go on a famous quest. He saved the princess Andromeda from an evil sea monster. For 10 points, name this famous Greek hero who killed Medusa.

ANSWER: Perseus

Copyright 2015. All rights reserved. Questions may not be copied or distributed electronically without permission from the writing team until such date as they are released to the archives. Use of these questions is limited to the purchaser, who may also distribute one copy (printed or electronic) of these questions to any team in attendance at a tournament using these questions.

7. In Esperanto, this kind of word ends in -aj. Some languages have kinds of these called 'dual' which describe exactly two things. Some irregular examples of these kinds of words in English include "children," but most end in -s or -es. For 10 points, name this kind of word that describes more than one of something.

ANSWER: plural

- 8. This force is the weakest fundamental force. This force arises from the curvature of spacetime according to Einstein's theory of general relativity. All objects that have mass exert this force on each other. For 10 points, what force causes thrown objects to fall to the ground? ANSWER: gravity [accept gravitational force]
- 9. This city was led by a group of five ephors, who advised its two kings. This city's helots were slaves that made up 90% of its population. For 10 points, name this Greek city-state that was known for its warrior culture, which helped it beat Athens in the Peloponnesian War. ANSWER: **Sparta**

10. Official competition in the "air" version of this sport requires an 8-foot table. The "field" version of this sport is the national sport of Pakistan. Famous players of another version include Mario Lemieux and Wayne Gretzky. For 10 points, name this sport played on ice by the St. Louis Blues.

ANSWER: hockey [accept air hockey, field hockey or ice hockey]

- 11. COMPUTATION: Gavin needs to know how much his cat weighs. His dog weighs 15 pounds, and he knows the ratio of his cat's weight to his dog's weight is 3 to 5. He calculates by multiplying his dog's weight by the ratio and figures, for 10 points, what weight of his cat? ANSWER: 9 pounds
- 12. This event was caused by a drought combined with the failure of farmers to use methods such as crop rotation. It caused thousands of "Okies" to migrate to California. For 10 points, name this weather event that often caused black clouds to appear over the Great Plains in the 1930s.

ANSWER: Dust Bowl

13. This author created characters such as Ralph S. Mouse and Ribsy the dog. In one book by this author, Leigh Botts writes to his favorite author. Her most famous characters are Ribsy's owner, Henry Huggins and sisters Beezus and Ramona Quimby. For 10 points, name this author of *Socks* and *Dear Mr. Henshaw*.

ANSWER: Beverly Cleary

14. One of these called "occluded" is represented by purple lines on a map. Thunderstorms often appear with the "cold" varieties of these. Wind and temperature shifts happen as these pass. For 10 points, name these boundaries between air masses, usually represented by red and blue lines with triangles or semicircles.

ANSWER: weather **front**s [accept **occluded front** or **cold front**]

15. Max Weber <u>[vay-ber]</u> argued that in this kind of economy, earning money glorified God. This kind of economy relies on the free market to help generate profit from investments. For 10 points, name this kind of economy that emphasizes private property and working for wages, such as in the United States.

ANSWER: <u>capitalism</u> [accept <u>capitalist</u> economy; accept <u>free market</u> economy before mentioned]

- 16. This building which was designed by Jorn Utzon features an exterior of pink granite. In one of the first uses of a computer in architecture, the large concrete shells on top are all sections of a sphere. For 10 points, name this building in Australia where music and theatre are performed.
- **ANSWER: Sydney Opera House**
- 17. This continent was first discovered by the Russian ship *Vostok*, which is also the name of this continent's largest lake. The Amundsen Sea on the western part of this continent is usually frozen over. For 10 points, name this continent that contains the Ross Ice Shelf and is located at the South Pole.

ANSWER: Antarctica

18. The main character's father in this book is an advertising agent whose clients include Juicy-O and Toddle Bike. One character in this book swallows the main character's turtle, just one of the activities that bothers Peter Hatcher. For 10 points, name this book by Judy Blume focusing on Peter and his younger brother, who goes by Fudge.

ANSWER: Tales of a Fourth Grade Nothing

19. The first person to accomplish this task did it at Oxford's Iffley Road Track. Only five male high school athletes have accomplished this task. Doing this requires running an average of 15 miles per hour. For 10 points, name this track and field accomplishment first completed by Roger Bannister.

ANSWER: running a <u>mile in four minutes</u> or less [accept <u>four-minute mile</u> or anything indicating that the person ran one mile's distance in less than four minutes]

20. A requirement for these buildings is that they contain a qibla, and that the area in front of it must be roofed. These buildings are places for salat and are led by an imam. Some of these buildings have minarets, from where the call to prayer is made. For 10 points, name this house of worship in Islam.

ANSWER: mosque

TB. Whooshh Innovations built a "cannon" that transports these animals. Thousands of these animals may travel up the Yukon River to breed in Alaska. Trout are closely related to these fish. For 10 points, name these fish that are sometimes caught by grizzly bears as they leap out of the water.

ANSWER: <u>salmon</u> [prompt on <u>fish</u> before mentioned]

BONUSES

1. Like Mercury, this planet in our solar system has no moons. For 10 points each:

[10] Name this second planet from the sun and "sister planet" to Earth.

ANSWER: Venus

[10] Venus' atmosphere is primarily made of this gas which was probably released from volcanic activity.

ANSWER: carbon dioxide [accept CO₂]

[10] Venus is the only planet in the solar system to rotate clockwise, meaning that the sun on Venus rises from which direction?

ANSWER: from the west

2. This character once got stuck in a tree after being used as a kite. For 10 points each:

[10] Name this character who earned his nickname after a bulletin board accident.

ANSWER: "Flat Stanley" Lambchop

[10] This younger brother of Stanley has fun by flying Stanley like a kite.

ANSWER: Arthur Lambchop

[10] Stanley was able to stop some thieves in one of these places by posing on the wall.

ANSWER: art museum

3. Rival high schools on this show include Carmel High and Dalton Academy. For 10 points each:

[10] This TV show created by Ryan Murphy aired on FOX from 2009-2015.

ANSWER: Glee

[10] This character serves as principal until he is demoted to janitor and replaced by Sue Sylvester.

ANSWER: Principal **Figgins** [He does not have a first name.]

[10] This strange show-within-a-show is hosted by Brittany and often features her cat Lord Tubbington.

ANSWER: Fondue for Two

4. This woodwind instrument is traditionally made from black grenadilla wood. For 10 points each:

[10] Name this single-reed instrument commonly played in B-flat and bass varieties.

ANSWER: clarinet

[10] Benny Goodman played clarinet in this style of music. Other famous players of this style include Louis Armstrong and Duke Ellington.

ANSWER: jazz

[10] In Prokofiev's *Peter and the Wolf*, the clarinet represents this animal who climbs into a tree when the wolf comes nearby.

ANSWER: cat

5. This man was shot and killed by a Union soldier after the barn where he was hiding was set on fire. For 10 points each:

[10] Name this stage actor who shouted "Sic semper tyrannis" as he assassinated Abraham Lincoln.

ANSWER: John Wilkes Booth

[10] Booth shot Lincoln at this Washington, DC, theatre where Lincoln was watching a performance of *Our American Cousin*.

ANSWER: Ford's Theatre

[10] Booth had assigned his friend Lewis Powell to kill this secretary of state, whose purchase of Alaska became known as his "folly".

ANSWER: William Seward

6. This country was formed by the 1929 Lateran Treaty. For 10 points each:

[10] Name this country, led by the Pope of the Catholic Church.

ANSWER: Vatican City [accept Vatican City State or Holy See]

[10] This church in the Vatican had its ceiling painted by Michelangelo.

ANSWER: Sistine Chapel

[10] The entire country of Vatican City is located completely within this other city.

ANSWER: Rome, Italy

7. COMPUTATION: Jane's cake recipe calls for one-and-two-thirds cups of sugar for the cake itself, and two-thirds of a cup for the frosting. For 10 points each:

[10] How many cups of sugar will she need for the entire recipe?

ANSWER: **two-and-one-third** cups [accept **seven-thirds** or **2.333**]

[10] How many cups of sugar will she need if she makes three cakes?

ANSWER: 7 cups

[10] If sugar costs \$2 per quart, how much will Jane pay for enough sugar to make three cakes?

ANSWER: **\$3.50**

8. For 10 points, name these words that all describe a certain relative.

[10] In Ireland and Scotland, this word is used as a prefix on names to mean "son of."

ANSWER: Mc [or Mac]

[10] In Arabic names, this word means "son." One infamous person with this word in his name was descended from someone named Laden.

ANSWER: bin or ibn [accept (Osama) bin Laden]

[10] Hebrew uses the word bat <u>["bought"]</u> to mean daughter, and this word to mean "son." A ceremony for 13-year-old Jewish boys has this word in its name.

ANSWER: <u>bar</u> [accept <u>bar mitzvah</u>]

9. A metric unit of distance with this prefix is about .621 miles and is sometimes called a "klick". For 10 points each:

[10] Name this metric prefix that means a thousand.

ANSWER: kilo-

[10] In older computer science research, a kilobyte was defined as 1,024 bytes, which is equivalent to 2 raised to this power.

ANSWER: **tenth** [accept **ten**]

[10] The inverse prefix to kilo- is this metric prefix that signifies one-thousandth of a unit.

ANSWER: milli-

10. The Embargo Act of 1807 made this activity illegal in the United States. For 10 points each:

[10] Name this activity of shipping goods out of a country, the opposite of importing.

ANSWER: **export**ing

[10] This Asian country primarily exports textiles and electronics and has the highest value of exports in the world.

ANSWER: China

[10] When goods enter the country importing them, they are often checked by this kind of officials. You may "go through" this process at an international airport.

ANSWER: customs

11. Answer some questions about recent votes in European countries. For 10 points each:

[10] Which issue was put to a vote in September 2014 to decide if Edinburgh residents were to be governed from London?

ANSWER: <u>Scottish independence</u> referendum [accept any answer indicating a vote about whether Scotland would remain a part of the United Kingdom]

[10] The vote in Scotland was extended to all residents who were at least this age.

ANSWER: sixteen

[10] Which country was the first to legalize same-sex marriages by popular vote in May of 2015?

ANSWER: Ireland

12. One novel by Herman Melville has given us a couple of common phrases. For 10 points each:

[10] Name this novel, featuring Captain Ahab's search for the title white whale aboard the *Pequod*.

ANSWER: Moby Dick

[10] The narrator of *Moby Dick* is this man, who in the first line of the book says "Call me" *this name*.

ANSWER: Ishmael

[10] This chief mate of the *Pequod* lends his name to a company based in Seattle.

ANSWER: **Starbuck** [do not accept Starbucks]

13. Some of these organisms consist of gills, a stem and a cap. For 10 points each:

[10] Name these occasionally edible fungi that you might call toadstools.

ANSWER: <u>mushroom</u>s [accept <u>toadstool</u>s before mentioned]

[10] Some species of mushrooms contain toxins that can cause these delusions of reality, where someone perceives something that is not really there.

ANSWER: hallucinations

[10] These expensive mushrooms are used in gourmet cooking and often sought out by pigs.

ANSWER: truffles

14. For 10 points each, answer some questions about a location in Washington, DC.

[10] This name of this hill in Washington is sometimes used to mean "Congress," as in the song "I'm Just A Bill" from Schoolhouse Rock!

ANSWER: Capitol Hill

[10] The U.S. Capitol Building contains a frieze of American history in this part of the building, a round area underneath the dome.

ANSWER: United States Capitol Rotunda

[10] The Capitol's cornerstone was laid by this founding father in 1793. He is also featured in a famous painting of his "Apotheosis" in the Capitol.

ANSWER: George Washington

15. When one of these objects has a large Schwarzschild radius, it is known as a supermassive one. For 10 points each:

[10] Name these dangerous astronomical objects which do not allow even light to escape if it gets too close.

ANSWER: black holes

[10] Once something crosses this line near a black hole, it has no chance of escaping.

ANSWER: event horizon

[10] This scientist predicted that black holes should release a small amount of detectable radiation. He is best known for his book *A Brief History of Time*.

ANSWER: Stephen Hawking

16. COMPUTATION: Caleb gave his students a social studies test and needs to find the range of the scores. The seven students had scores of <u>[read slowly]</u> 88, 60, 87, 90, 72, 90, and 83. For 10 points each:

[10] Find the range of the scores of Caleb's students.

ANSWER: <u>30</u>

[10] Find the mode of the scores of Caleb's students.

ANSWER: **90**

[10] Caleb wants to visually represent his students' scores by drawing a stem-and-leaf plot. Which 'stem' number would have the most numbers in the same row in the 'leaf' side of the plot?

ANSWER: 8

17. For 10 points each, identify the following about Native American religions and cultures.

[10] The Inuit god Nanook decides which hunters find and kill this predator, the largest land carnivore in the Arctic.

ANSWER: **polar bear** [prompt on partial answers]

[10] This canine is a trickster deity in many Native American cultures. In a Navajo myth, he created the Milky Way.

ANSWER: Coyote

[10] This "Confederacy" of tribes in New York observed a religion centered around longhouses.

ANSWER: **Iroquois** League

18. A 'belt' running from Chicago to New York is named for this substance. For 10 points each:

[10] What often reddish-brown substance forms due to corrosion on old metal objects such as nails?

ANSWER: <u>rust</u> [accept <u>iron(III) oxide</u>]

[10] Adding around 10% chromium to steel creates this rust-resistant alloy commonly used in silverware and architecture.

ANSWER: stainless steel

[10] One famous stainless steel structure is this curved monument in St. Louis standing 630 feet tall.

ANSWER: Gateway Arch

19. The first battle between two of this type of ship was the Battle of Hampton Roads. For 10 points each:

[10] Name this type of ship that fought that battle near Chesapeake Bay, named for the type of metal used to armor them.

ANSWER: ironclads

[10] The Battle of Hampton Roads took place between the *USS Monitor* and this confederate ship, also the name of the state where Hampton Roads is located.

ANSWER: CSS Virginia

[10] The battle was important in defending this capital city of the Confederate States of America, also the capital of Virginia today.

ANSWER: Richmond, Virginia

20. This author's works include the *Kane Chronicles* and the first book in *The 39 Clues* series. For 10 points each:

[10] Name this author who created characters like Annabeth, Grover and Luke Castellan.

ANSWER: Rick Riordan

[10] Those characters appear alongside this hero, the demigod son of Poseidon.

ANSWER: Percy Jackson

[10] Percy first learned of his heritage at this place, which is guarded by Thalia's tree.

ANSWER: Camp Half-Blood

TB. A copy of this sculpture stands in the Piazza della Signora. For 10 points each:

[10] Name this Michelangelo sculpture of the boy who slew Goliath.

ANSWER: **David**

[10] David was meant to be placed in the Cathedral of this city in Italy, also home to the Uffizi Gallery.

ANSWER: Florence

[10] *David*'s eyes look toward this city, perhaps in a gesture of defense for Florence which was threatened to be conquered by this city.

ANSWER: Rome