FROSHMORE CHAMPIONSHIPS

Round Four

Read only for Round Four

Officials Checklist and reminders:

1.) Review this checklist and reminders document and the rules flow chart. _____
2.) Pencils and fresh scratch paper for each participant _____
3.) Timer instructions _____
4.) Identify the head coach for each team. _____
5.) Identify the team captain. _____
6.) Review the pumpernickel rule _____

Accept only the answer to the bonus question that comes from the captain.
The captain may defer to another team member to give the answer to the bonus question.
If you want them to indicate a deferral in a specific way – tell them at the beginning of the match. "If you are going to defer on a bonus question, please do so by …."

Coaches may use an ipad or table to keep score (I've sent out an excel score sheet) They may not use their ipad, phone or other technology to look up answers, send or received text messages or emails or to make calls during competition.

Before you begin, remind students that on a toss-up question they must buzz-in and be recognized before giving the answer and that they may NOT confer on a toss-up. You may only confer on a bonus question."
When you read a toss-up question – identify the subject, then read the question.
If the team member buzzes-in before the question is completed and the answer is incorrect, say 'incorrect, I will finish the question' then finish reading the question.
If you have finished reading the question when the first team buzzes-in and gives an incorrect response say 'incorrect,' look at the second team call them by team name and say '_____ I have finished the question'
If the time has expired, their response should be to immediately buzz-in to be recognized. If there is still time (5 seconds for a regular question 15 on a math computation) they have the remaining time to buzz.
If the toss-up question is not answered correctly by either team, give the correct answer. Do NOT read the bonus question, go on to the next toss-up. **If you need a replacement question for this subject, you may use the unused bonus.**
The first time you read a bonus question for each team say 'Here is your bonus question, you do not need to buzz-in. Remember you may confer on this question, and I will take the answer from the team captain.'
There is NOT a penalty for buzzing during a bonus question.

When the time for conferring has expired (10 seconds – 15 on math or science computation) **call for the answer.** Say, 'Captain?' or 'answer please' (or something similar). If they do not give you an immediate answer say 'time' and give the correct answer.
There is no limit to the number of team members a team substitutes.
On a toss-up question, do not give the correct response until you have given both teams an opportunity to answer the question.
Leading articles such as "the," "an," and "a" are not required (e.g., Tale of Two Cities is an acceptable answer for The Tale of Two Cities). However, if an article is given, it must be the correct one.
Plural/Singular answers are acceptable unless otherwise delineated.
Last names are acceptable, except where there is more than one common person in the same field. Prompt for more information by saying – 'more' or 'more specific'.
Questions requiring additional computation time (15 seconds) have computation in the subject line - MATH COMPUTATION: or SCIENCE COMPUTATION: or BONUS COMPUTATION: (If it needs it and we forgot it, add it!)
Math or Science questions that do not require computation and receive regular question time (5 for toss-up and 10 for bonus) do not have computation in the subject line - MATH: or SCIENCE: or BONUS

Explain the addition of the word Computation to the timer and the team at the beginning of the tournament. After the first question containing COMPUTATION: You may choose to say only Computation if you wish.

Give your stall count before the game starts. A stall count is the amount of time allowed for the student to begin their answer once you've called on them. "My stall count is _ _ _." Fill in the blanks with your count. Do you count 1, 2, stall? 1, 2, 3, stall? Do you say stall on the upbeat of the 3rd second or the downbeat? My preference is you count 1(1001), 2(1002), 3(1003) with stall being called on the downbeat of 3. (Down beat being the end of the 1003 with 100stall. You do not have to say the 1000 or the second 1, 2 or 3 out loud. You do need to make some type of physical indication - head nod, hand count (like a basketball referee counting the backcourt) even a foot tap. But do something so the student can see the seconds slipping away. This also helps with consistency. Neither team can say the other team received more time before a stall was called. When an immediate answer is expected 1 second is adequate time to allow before a stall is called.

"Welcome to Round _____ of the tournament. I am _____, your moderator. (if you have a judge, timer and scorekeeper, introduce them as well) Our two teams are _____ and _____. Head coaches, will you please stand. A protest may be lodged only by the head coach." (run a buzzer check) "Students, remember, you may not give an answer until you are recognized. If you do so, it will be ruled as an incorrect response, even if your answer is correct. Explain the timing for Math or Science Computation: (see instructions) Good sportsmanship is expected from **all** players, substitutes, coaches, spectators and parents. Except for using the excel spreadsheet to keep score, you may not use computers, smart phones, iPad, etc. during the competition. Turn off all and put away all electronics at this time. (pause) Are there any questions? Let's begin."

_____ _____ 1. SCIENCE**: A chocolate chip cookie and a sugar cookie are often used as examples of two types of these.*** The milk to go with them is one of these also. The dry cookie ingredients in a box are also one of these—it says so on the box. What is this term for a combination of substances that are not chemically combined with each other?

ANSWER**: <u>Mixture</u>**

BONUS BONUS**:** This could be a single element or a single compound. Either way, there is only one type of matter here.

ANSWER**: <u>Pure Substance</u>**

_____ _____ 2. MATH COMPUTATION: What is the decimal value of the base four number 1111?

[SAY one one one one]

ANSWER: **85**

BONUS BONUS COMPUTATION: What is the decimal number for the hexadecimal number 5D?

ANSWER: **93**

_____ _____ 3. FINE ARTS: **One work by this artist was allegedly an encased corpse and is his *Age of *** *Bronze*. This sculptor depicted surrendering noblemen in his *Burghers of Calais*. Who is this sculptor who depicted the poet Dante deep in contemplation in his *The Thinker*?

ANSWER: (Auguste) **<u>Rodin</u>**

BONUS BONUS: Rodin also created a monument to what French writer of *The Human Comedy*?

ANSWER: (Honore de) **<u>Balzac</u>**

_____ _____ 4. SOCIAL STUDIES: **One commander at this battle had been sent to destroy the fortification at the center of this battle. Moses Rose was the only man who decided to *** leave before this battle. William Travis commanded the Texan army at what battle fought in San Antonio?

ANSWER: (Battle of the) **<u>Alamo</u>**

BONUS BONUS: "Remember the Alamo" was shouted by Texan soldiers at what final battle of the Texas War of Independence?

ANSWER: (Battle of) **<u>San Jacinto</u>**

_____ _____ 5.   SCIENCE**: This type of chart is used to show the appearance of characteristics from one generation to the next.*** It is used with humans for traits like eye color or genetic disease and can show possible carriers for genes. What is this chart most often associated with show dogs?

ANSWER**: <u>Pedigree</u>**

BONUS

BONUS**:** On a pedigree chart the genetic form of this characteristic for an individual is indicated by whether the individual is represented by a circle or a square. What is this characteristic?

ANSWER**:** <u>Sex</u> [do not accept "gender"]

_____ _____ 6.   MATHEMATICS COMPUTATION: Given: log base three of seven is 1.7712 and the log base three of four is 1.2619. To four decimal places, what is the value of log base three of twenty-eight?

ANSWER: **3.0331**

BONUS

BONUS COMPUTATION: What is the common log of a googol?

ANSWER: **100**

<div align="right">

END OF FIRST QUARTER
The score at the end of the first quarter is
Team one _____ Team two _____
Are there any questions?
(pause and look at the coaches if there are no protests proceed)
"Coaches... you may substitute if you wish.

</div>

_____ _____ 7.   LITERATURE**: The main characters in this story take a road trip to a small Tennessee town that claims to be the burial location of Archduke*** Franz Ferdinand. The story continues to follow the path of Colin Singleton, a child prodigy. Name the book, where Colin has dated 19 girls named Katherine.

ANSWER: ***<u>An Abundance of Katherines</u>***

BONUS

BONUS: Who is the author of *An Abundance of Katherines?*

ANSWER: **John <u>Green</u>**

_____ _____ 8.   POP CULTURE**: Her run on *Jeopardy* has come to an end.*** The *Big Bang Theory actor* announced that she will no longer be co-hosting the game show. Name the woman who was nominated for a primetime Emmy for hosting the show.

ANSWER: **Mayim <u>Bialik</u>**

BONUS

BONUS: Who is now the full-time host of *Jeopardy*?

ANSWER: **Ken <u>Jennings</u>**

_____ _____ 9.

SOCIAL STUDIES: **This man's first political appointments were to clerk positions in Illinois and Kansas. This man unsuccessfully lobbied to be made a governor and developed a plan to turn Oklahoma into a majority *** black state. Who is this man who founded Langston University?

ANSWER: (Edward P.) **McCabe**

BONUS

BONUS: Another proposed plan was to turn Oklahoma into an entirely Native American state. What was the name of this proposed state?

ANSWER: (State of) **Sequoyah**

_____ _____ 10.

SCIENCE**: Along with mites, these form the group Acari in the Arachnids.*** Almost 1000 species occupy every continent except Antarctica and, by attaching on migrating birds, they can be carried vast distances. What is this vector for diseases like Rickettsia, encephalitis, and Lyme disease?

ANSWER**: Ticks**

BONUS

BONUS**:** These arachnids form their own order. Also occupying all continents except Antarctica, these arachnids have eight legs and are distinguished by their claw-like pedipalps and tail with venomous sting.

ANSWER**: Scorpions**

_____ _____ 11.

MATHEMATICS COMPUTATION: Pedro's Used Cars has a $2400 Chevy Camaro on sale for $1800. What is the percent discount on this automobile?

ANSWER: **25** (%)

BONUS

BONUS COMPUTATION: Pedro bought a Ford Fiesta for $3000, marked it up 40%, and then discounted it 15% to sell it. What was his profit on this vehicle?

ANSWER: **$570**

_____ _____ 12.

HUMANITIES: **"Wild Colonial Boy" is a folk song from this country written by Frank the Poet. A collection of folk songs in this country was created by *** Banjo Patterson. What is this former British penal colony whose folk songs include "Waltzing Matilda?"

ANSWER: **Australia**

BONUS

BONUS: "And the Band Played Waltzing Matilda" is a folk song written to memorialize ANZAC troops who fought at the Battle of Gallipoli in what war?

ANSWER: **World War I**

END OF FIRST HALF
The score at the end of the first half is
Team one _____ Team two _____
Are there any questions?
(pause and look at the coaches if there are no protests proceed)
"Coaches... you may substitute if you wish.

_____ _____ 13.

SOCIAL STUDIES: **The International Brigades in this war consisted of many Irish nationals. The Communist-leaning Lincoln Battalion supported the *** Republicans against the Falangists in this war. What is this war in an Iberian country, which resulted in the reign of Francisco Franco?

ANSWER: **Spanish Civil** (War)

BONUS

BONUS: Franco's Falangists were connected to what international political philosophy which derives its name from the Latin word for "bundle"?

ANSWER: **Fascism**

_____ _____ 14.

CURRENT EVENTS: **Voters in this country rejected a new constitution.*** Over 55 percent of the South American country's population voted against the proposal. Name the country whose current constitution was enacted in 1980 during a military dictatorship.

ANSWER: **Chile**

BONUS

BONUS: What is Chile's capital city?

ANSWER: **Santiago**

_____ _____ 15.

SCIENCE: **This small, simple molecule is odiferous and important in both agriculture and explosives.*** It is "fixed" from the major component gas in the atmosphere. What is this molecule consisting of one nitrogen atom and three hydrogens?

ANSWER: **Ammonia**

BONUS

BONUS: Ammonia was difficult to manufacture prior to 1913, when this process, named for its German inventor, was first employed. What was this process needed by Germany in WWI to manufacture explosives on a war scale?

ANSWER: **Haber** (Process)

_____ _____ 16.

MATHEMATICS COMPUTATION: Solve for all answers of x: $3x^2 + 12 = 20x$

ANSWER: (x =) **6, 2/3** (answers may be in reverse order)

BONUS

BONUS COMPUTATION: Give all the <u>integral</u> solutions to this inequality: $x^2 - 8x + 7 < 0$

ANSWER: **2, 3, 4, 5, 6**

_____ _____ 17.

LITERATURE: **This American novel is set in the Puritan Massachusetts Bay Colony from 1642-1649.*** It's often considered Nathaniel Hawthorne's greatest work. Name the novel with the main character Hester Prynne.

ANSWER: ***The Scarlet Letter***

BONUS

BONUS: Hawthorne lived in which famous Massachusetts town, famous for its witch trials?

ANSWER: **Salem**

_____ _____ 18.

SOCIAL STUDIES: **The flag of Moscow depicts St. Stephen atop a horse slaying one of these creatures. One of these creatures named for Thunder appears on the flag of *** Bhutan. What are these mythological creatures one of which appears on the flag of Wales?

ANSWER: **Dragon**

BONUS

BONUS: A dragon also appeared on the flag of what final Chinese Dynasty?

ANSWER: **Qing** (Dynasty)

> END OF THIRD QUARTER
> *The score at the end of the third quarter is*
> *Team one _____ Team two _____*
> *Are there any questions?*
> (pause and look at the coaches if there are no protests proceed)
> *"Coaches... you may substitute if you wish.*

_____ _____ 19.

HUMANITIES: **This man's "Six Arts" include archery, music and mathematics. Ren is the ideal of benevolence as formulated by this man, the teacher of *** Mencius. Who is this Chinese philosopher, whose sayings were recorded in the *Analects*?

ANSWER: **Confucius** [also accept Kong Fuzi]

BONUS

BONUS: Which of Confucius's Six Arts is also practiced in a religious form in Islam called Shufa?

ANSWER: **Calligraphy**

_____ _____ 20.

MATHEMATICS COMPUTATION: Two parallel lines are cut by a transversal and the measures of the corresponding angles formed are $2x + 17$ and $6x - 7$. What is the value of x?

ANSWER: (x =) **6**

BONUS

BONUS COMPUTATION: Two parallel lines are cut by a transversal and the measures of the same side interior angles are $7x - 3$ and $2x + 12$. What is the value of x?

ANSWER: **(x =) 19**

_____ _____ 21.

POP CULTURE: **This missing food was found in space.*** Astronaut Frank Rubio was trying to grow the food at the International Space Station. Which food was lost when the astronaut brought it out to show some students on a video call?

ANSWER: **tomato**

BONUS

BONUS: What other item was lost in space recently while doing repairs outside the ISS?

ANSWER: **tool bag**

_____ _____ 22.

SCIENCE: **This kingdom of organisms is responsible for light, airy bread; beer and wine; as well as penicillin.*** The study of this kingdom is known as mycology. What is this kingdom that produces a species known as the "deathcap?"

ANSWER: **Fungi**

BONUS

BONUS: Fungi are this type of organism, obtaining energy from the external breakdown of organic matter.

ANSWER: **Decomposer**

_____ _____ 23.

SOCIAL STUDIES: **Broadcasts of a police chase which preceded this trial interrupted the 1994 NBA Finals. In this trial, the testimony of Mark Fuhrman was challenged due to his history of racist comments. Lance *** Ito presided over what trial in which a former NFL player was defended by Johnnie Cochrane for the murder of his ex-wife and her lover?

ANSWER: (People of the State of) **California v.** (Orenthal James) **Simpson** [accept any answers relating to OJ Simpson's murder trial, but do NOT accept anything related to his civil trial]

BONUS

BONUS: Simpson later served time in prison for an armed robbery that occurred at the Palace Station hotel in what city?

ANSWER: (Las) **Vegas** (Nevada)

_____ _____ 24.

HUMANITIES: **"O Kinsmen we must meet the common foe!" is a line from a poem in this literary movement. "If We Must Die" is a work in this movement by *** Claude McKay, which also featured the poem "I, Too." Langston Hughes was a figure in what African-American literary movement?

ANSWER: **Harlem Renaissance**

BONUS

BONUS: A line in Hughes's poem "Harlem" became the title of what play by Lorraine Hansberry?

ANSWER: **A Raisin in the Sun**

END OF GAME
The score at the end of the game is
Team one _____
Team two _____

If there is a tie allow for substitution before you ask the tie-breaker questions. Read all 5 questions to determine a winner.

Tie Breakers

MATHEMATICS COMPUTATION: Put in simplest radical form: $^3\sqrt{189}$.   [READ cube root of 189]
ANSWER: **3 $^3\sqrt{7}$**   [Three (times the) cube root of seven]

FINE ARTS: What American sculptor created *The Minute Man* and the large sculpture of a former president at the Lincoln Memorial?
ANSWER: (Daniel Chester) **French**

SOCIAL STUDIES: Nerva, Trajan, Hadrian, Antoninus Pius, and Marcus Aurelius, are collectively known as what group of Roman Emperors?
ANSWER: (Five) **Good Emperors** [prompt on Roman Emperors before the question ends]

SCIENCE**:** This portmanteau word was coined to describe the hazy secondary air pollution that is found in many major citys…such as Los Angeles.
ANSWER**:** **SMOG**

LITERATURE: Which type of written humor is biting or insightful and includes sharp comebacks, clever banter, and dry, one-line jokes?
ANSWER: **wit**

Are there any questions? (pause and look at the coaches if there are no protests proceed)
This ends the game. "