

1. Earth Science/Geography/Astronomy

Which country contains the Eastern half of Lake Titicaca? It borders Paraguay, which is the only other landlocked country in South America. Like Peru, most of its population is non-European. Its largest city is La Paz, which is where the government is located, though the judicial capital is Sucre.

ANSWER: Bolivia

2. Language Arts

(Note to moderator: Do not say the word Visceral.) This is a spelling question. Spell the adjective beginning with the letter V that refers to instinctive feelings. A synonym of inner, it means 'felt deep down'.

ANSWER: V-I-S-C-E-R-A-L (Prompt Visceral)

3. Geometry/Trigonometry (30 Seconds)

What do you get when you add the sine of x plus the sine of the quantity x plus 180 degrees?



ANSWER: 0

4. United States History

Less than a year after his greatest victory, he fled to Canada and refused an offer to return to the United States. Facing starvation in 1881, however, he eventually moved his men back. Name this leader who formed an alliance with Rain-in-the-Face and Crazy Horse to enforce the Fort Laramie Treaty. This Hunkpapa Lakota Sioux leader helped win the Battle of Little Big Horn.

ANSWER: Sitting Bull (accept Tatanka Iyotake, Tatanka Iyotanka, Ta-Tanka I-Yotank, or Hunkesni)

5. World Literature

Which Nobel Prize winner claimed that his background in mathematics saved his life twice? In 1974, he was deported to West Germany, but he moved back to his home country in 1994. Many of his works were based on his own experiences, including *The Cancer Ward*. Name this author of *August 1914*, *The Gulag Archipelago*, and *One Day in the Life of Ivan Denisovich*.

ANSWER: (Aleksandr) Solzhenitsyn

6. Chemistry (10 Seconds)

What type of colloids are mayonnaise, blood, milk, and many types of paint? Some, such as the combination of oil and vinegar, are unstable. This term is defined as a suspension of small globules of one liquid in a second liquid with which the first will not mix.

ANSWER: Emulsion(s)

7. Pop Culture

This character can be found on twenty-two thousand products and brings in revenues of five hundred million dollars annually. Though born in 1974, she is in third grade with her friends Cathy, Tippy, Fifi, Tiny Chum, Rory, and Mory. Her twin sister Mimmy wears a bow on her right ear so that everyone can tell them apart. Name this character created in Japan who supposedly lives in London—she is a mouthless feline.

ANSWER: Hello Kitty (prompt if half the answer is given)

8. Calculus/Combinatorics (30 Seconds)

The Chicago Bears score a touchdown on one tenth of their possessions. If they possess the ball three times, what is the probability that they will score exactly two touchdowns?

ANSWER: 27/1000 (or (0).027)

9. Nonfiction

Which book's sequel was *The Final Days*? Its memorable characters included Alexander Butterfield and Charles Colson. The book was published in 1974, made into a major movie in 1976, and briefly returned to bestseller lists a few months ago. It was based on newspaper columns in *The Washington Post* written by Bob Woodward and Carl Bernstein.

ANSWER: All The President's Men

10. Technology

There is some debate over whether or not this energy source is renewable or not. It is a major energy source in Iceland, and there is a large project using it in Northern California. Sometimes flash or binary power plants are used to harness this energy, but the most successful plants use dry steam. Name this energy source based on heat rising from the Earth's core.

ANSWER: Geothermal

11. Music

Whose quotes include "Without music to decorate it, time is just a bunch of boring production deadlines or dates by which bills must be paid" and "Life is like high school with money"? His songs include "Cosmik Debris" and "Dumb All Over". His albums include *We're Only In It For The Money* and *Apostrophe*. Many of his albums were produced by his Barking Pumpkin label, and his band called itself The Mothers of Invention.

ANSWER: (Frank) Zappa

12. Physics (10 Seconds)

What unit is equivalent to a source that emits monochromatic radiation of frequency 5.4×10^{12} hertz that has a radiant intensity in that direction of $1/683$ watts per steradian? It is a measure of luminous intensity. It is sometimes confused with the lux, which measures illuminance, or the lumen, which measures luminous flux.

ANSWER: Candela (accept Candle)

13. United States Literature

Whose 1948 novel *The City and the Pillar* was so controversial that *The New York Times* refused to review his next five novels? His 1968 novel *Myra Breckinridge* was also controversial but helped his career. Most of his recent writings have been essays critical of the Bush Administration. Name this author of the historical novels *Burr, 1876*, and *Lincoln*.

ANSWER: (Eugene Luther Gore) Vidal

14. Art/Architecture

Name the painter who lived from 1748 to 1825, avoided the Rococo movement, and became associated with the French Revolution and Napoleon. Some of his famous works are *The Intervention of the Sabine Women*, *The Oath of the Horatii*, *The Death of Socrates*, and *The Death of Marat*.

ANSWER: (Jacques Louis) David

15. World History

Which leader started a war by attacking the town of Saguntum in present-day Spain? He would then go on

to win battles at The Trebia, Lake Trasimene, and Cannae. Though his enemies were unable to stop him directly, they were able to get rid of him by invading his homeland. Name this leader in the Second Punic War who is famous for, among other things, crossing the Alps on elephants.

ANSWER: Hannibal Barca (accept either half of name)

16. Biology

What is made up of one or more carpels? Each carpel contains a stigma, style, and ovary. This is considered the female organ of a flowering plant.

ANSWER: Pistil

17. Religion/Mythology

They are more likely to follow Rama, have stricter kosher standards for Passover, and have looser standards for meat. They are usually associated with Germany and Yiddish, though they inhabited several Eastern European countries and spoke several languages. Name this group, the subject of several controversial IQ studies, that is susceptible to many genetic diseases such as Tay-Sachs. It accounts for about eighty percent of the Jewish population.

ANSWER: Ashkenazi (Jews) (accept variations on the word ending, prompt Jews)

18. Algebra (30 Seconds)

If a line has an x-intercept of 10 and a y-intercept of 6, then what is the value of y on the line when $x=3$?

ANSWER: 4.2 (or $4 \frac{1}{5}$ or $21/5$)

19. Current Events

Who founded the Vanderbilt Transplant Center? He has been in two elections in his life, winning the same office both times: a seat in the US Senate representing Tennessee. He is currently being investigated for selling stock that was in a blind trust. Name the current Senate Majority Leader.

ANSWER: (Bill or William Harrison) Frist(, MD)

20. British Literature

Name the Shakespeare character who says: "I am not gamesome; I do lack some part of that quick spirit that is in Antony. Let me not hinder, Cassius, your desires." After Julius Caesar's death, this character says, "Ambition's debt is paid." Name this character famously addressed by the dying Julius Caesar.

ANSWER: (Marcus) Brutus (prompt on Brute)

TIEBREAKER: To break a tie, use the following questions in order. The first correct answer wins the match.

(30 Seconds) Find the value of b if the function $y=x^3+bx^2+24x+5$ has a maximum when x equals negative four and a minimum when x equals negative two.

ANSWER: 9

Because a fake sequel was written to the first part of this book, the second part contains several denunciations of an impostor and the death of the main character. The novel itself falsely claims to be based on the writings of Benengeli. It is about a, “gentleman of the type wont to keep an unused lance, an old shield, a greyhound for racing, and a skinny old horse.” Along his journeys, he meets Altisidora, Cardenio, Dulcinea, and Sancho Panza. Name this work by Cervantes.

ANSWER: Don Quixote (de La Mancha) (do not accept Man of La Mancha)

Which chemical element has atomic mass 39.10, atomic number 19, and atomic symbol K?

ANSWER: Potassium (Prompt K)