

1. Earth Science/Geography/Astronomy

It goes from New Zealand to Chile via Indonesia and the Aleutian Islands. Containing a number of ocean trenches, most of it is caused by interactions between the Pacific Plate and other tectonic plates. Name this region which is where the vast majority of the world's major earthquakes take place.

ANSWER: (Pacific) Ring of Fire (or Circum-Pacific Seismic Belt)

2. Language Arts

These are often surrounded by commas in a sentence and come after the noun they modify. Give the term for a noun or pronoun set beside another noun or pronoun to explain or identify it. This term begins with the letter A.

ANSWER: Appositive(s)

3. Geometry/Trigonometry (30 Seconds)

Include units in your answer. The vertex angle of an isosceles triangle is 120 degrees. Find the length of the altitude to an extension of one of the congruent sides if the length of the base is twenty centimeters.

ANSWER: 10 centimeters

4. United States History

Which word was placed in quotation marks eight times in National Security Council Paper Number 68, which was written in 1950? This strategy was defined as exposing the falsities of Soviet pretensions, fostering seeds of destruction within the Soviet system, inducing a retraction of Soviet control, and blocking further expansion of Soviet power. Give this 11-letter word beginning with the letter C.

ANSWER: Containment

5. World Literature

Which early twentieth century poet wrote *The Duino Elegies* and *Sonnets to Orpheus*? He wrote in German, and his most productive periods were in Paris before World War One and in Switzerland after the war. He wrote the novel *Notebooks of Malte Laurids Brigge*, but his most famous piece of writing may be *Letters to a Young Poet*.

ANSWER: (Ranier René Karl Wilhelm Johann Josef Maria) Rilke

6. Chemistry (30 Seconds)

Hydrogen gas and oxygen gas are being combined to create water, using up one mole of oxygen per minute. How many moles of oxygen will be used up per minute if the concentrations of hydrogen and oxygen are both tripled?

ANSWER: 27 (moles of oxygen per minute)

7. Pop Culture

Which restaurant franchise started as a donut shop in California in 1953? It changed its name in 1959. The subject of a race-based class action lawsuit in during the 1990s, it recently has featured African Americans such as Sherman Hemsley and Isabel Sanford in its commercials. Name this group of 1,600 restaurants open 24 hours a day. They serve the Original Grand Slam.

ANSWER: Denny's

8. Calculus/Combinatorics (30 Seconds)

Find the area between the x-axis and the graph of $y=x^2+x+1$ between $x=0$ and $x=1$.

ANSWER: $1 \frac{5}{6}$ (accept $11/6$ or 1.83 repeating(only the 3 repeats))

9. Nonfiction

Name the fourteenth century English friar who is considered by some people to be the Father of Modern Epistemology. He stated, "Plurality should not be posited without necessity." In modern times, this statement is often restated, "Of two equivalent theories or explanations, all other things being equal, the simpler one is to be preferred." This statement is nicknamed The Razor.

ANSWER: (William of) Occam (do not accept Occam's Razor)

10. Technology

When you go to this website, you are shown a list of 25 items recently found using it. The words "My Shopping List" appear in the upper right corner, and the middle of the screen gives a definition of the site. Name this spinoff of Google.

ANSWER: (www.)Froogle(.com)

11. Music

It started out as a novel in 1910 and became a movie in 1925. In 1986, it was adapted by Andrew Lloyd Webber. Name this musical that contains the songs Think of Me, The Point of No Return, and The Music of the Night. The main character, named Erik, falls in love with a young singer named Christine. He wears a mask to hide his horrible face.

ANSWER: (The) Phantom Of The Opera (prompt Phantom)

12. Physics (10 Seconds)

In 1654, who developed a better way to grind and polish lenses? Using one of his lenses, he became the first person to notice a moon of Saturn. Near the end of his career, he argued strongly in favor of the wave nature of light. Name this Dutch mathematician and physicist.

ANSWER: (Christiaan) Huygens

13. United States Literature

Many of this author's novels and stories were based on his own experiences. *A New Life* was based on his professorship at Oregon State University. His parents' experiences as New York City grocers led to *The Assistant*. His first and most famous novel, however, is rare in that it does not have significant Jewish characters. Name this author who wrote about Roy Hobbs in *The Natural*.

ANSWER: (Bernard) Malamud

14. Art/Architecture

Which famous metalworker lived from 1378 to 1455? He worked on one major project from 1403 to 1424, then worked on a related project from 1425 to 1452. The first project consists of 28 scenes from the New Testament, while the second consists of 10 scenes from the Old Testament. Name the artist who made doors for the Baptistery of San Juan in Florence. Michelangelo nicknamed his works The Gates of Paradise.

ANSWER: (Lorenzo) Ghiberti

15. World History

What is the popular name of the Ardennes Offensive? Lasting over a month and taking place during very cold weather, it involved the Malmedy Massacre. Over one million men fought, leaving behind about nineteen thousand dead Americans and probably even more dead Germans. The German Offensive stalled Allied progress on the Western Front but did not prevent the fall of Germany in 1945.

ANSWER: (Battle of the) Bulge

16. Biology

Who wrote *On The Natural Faculties*? Though his methods would offend many animal rights activists were he alive today, he discovered what many of the body's organs are used for. He discovered that arteries and veins contain blood, but he did not understand the basic idea of circulation. Name this physician who died around 200 AD.

ANSWER: (Claudius) Galen(us of Pergamum)

17. Religion/Mythology

Who was granted a great power by Apollo, only to have it turned into a curse when she refused to become his lover? She recommended killing her brother Paris, but nobody listened to her. She also recommended not accepting the Trojan Horse. Name this woman able to see the future but unable to convince other people of her visions.

ANSWER: Cassandra (prompt on Alexandra)

18. Algebra (10 Seconds)

Who proved during the 1870s that there are more real numbers than rational numbers? He also is credited with discovering transfinite numbers. A set named after him is considered by some the prototype of a fractal. This set is found by starting with the numbers from 0 to 1 and continuously removing the middle third of any group of numbers that is left.

ANSWER: (Georg) Cantor

19. Current Events

This area is about 25 miles long and 7 miles wide and has a population of over one million people. Its boundary was set in 1948, and it was occupied by Egypt for almost twenty years. It was in the news a lot during the second half of August and first half of September when several thousand Israelis left their settlements. Name this area now largely under Palestinian jurisdiction.

ANSWER: Gaza (Strip) (do not accept Gaza City)

20. British Literature

Which novelist created the characters John Middleton, Catherine Morland, Mary Crawford, George Knightley, and Georgiana Darcy? Living from 1775 to 1817, she never married even though many of her characters are women in search of a good husband. Name this author of *Persuasion*, *Northanger Abbey*, *Emma*, and *Pride And Prejudice*.

ANSWER: (Jane) Austen

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

What 13-letter word can be used to describe a rainbow that is neither primary nor secondary? More commonly, it refers to a person serving no apparent function, an actor performing a walk-on role, or an amount larger than normal.

ANSWER: Supernumerary

What is also known as Chomolangma and Sagarmatha? Sections include Khumbu and Rongbuk. It is often in the news, including this year when it was used as a wedding site. Associated with people such as Jess Roskelley, Reinhold Messner, George Mallory, and Edmund Hillary, what is this object that is 8850 meters high? It is the highest mountain in the world.

ANSWER: (Mount) Everest

Which chemical element has atomic mass 26.98, atomic number 13, and atomic symbol Al?

ANSWER: Aluminum (Prompt Al)