



Tossup 1: Social Studies — Geography

<p>It is known for its quantities of mud, as well as the rumor that its mud has healing powers. Formed by the confluence of three rivers in western Montana, it passes by Pierre, South Dakota and Omaha, Nebraska. Name this second longest river of the United States, which meets the Mississippi near St. Louis.</p>	<p><u>Missouri River</u></p>
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Bonus 1: Math — Other

<p>Given a fair two-sided coin, what is the probability that the following situations will occur?</p>		
A	You flip heads three times in a row.	<u>1/8</u>
B	You flip heads exactly two out of three times.	<u>3/8</u>
C	You flip no more than one head in three trials.	<u>1/2</u>
D	You flip heads once followed by tails once.	<u>1/4</u>



Tossup 2: Miscellaneous — Entertainment

In May 2006, the Supreme Court ruled that this woman deserved a second chance in court, allowing her to appeal a California Court's overturning of an original estate claim that was being disputed by her sixty-seven year old stepson. That stepson died in June, easing the way for her nine-figure inheritance, though his death appears to have triggered a depression which ended on February 9, 2007 with her own death. Name this high school dropout and former wife of an oil tycoon sixty years her elder.

Anna Nicole Smith (*prompt on Vickie Lynn Marshall*)

Bonus 2: Literature — Mythology

Central to Egyptian mythology is the story of one god butchering his brother and scattering the pieces of his body.

A Name the murdered brother, on-and-off the chief god in Egyptian mythology.

Osiris

B This is the god who carved up his brother.

Set (*also accept Seth*)

C This wife of the murdered brother reassembled him.

Isis

D This falcon-headed son of the answers to parts A and C took revenge on the god who carved up his father.

Horus



Tossup 3: Literature — Literature

<p>An English nobleman who was at one point employed as Clerk of the King's Works, he was allowed to be interred in Westminster Abbey. In 1556 his remains were moved, making his the first tomb in what is now Poet's Corner. His works include the unfinished House of Fame, as well as The Romaunt of the Rose. The author of more popular works such as Troilus and Criseyde and The Parliament of Fowls, identify this Middle English poet who penned The Canterbury Tales.</p>	<p><u>Geoffrey Chaucer</u></p>
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Bonus 3: Science — Physics

Identify these physical units related to circuits.		
A	This is the unit of potential difference, and is equal to one joule per coulomb.	<u>Volt</u>
B	This is the unit of electric current, and is equal to one coulomb per second.	<u>Amp(ere)</u>
C	This is the unit of capacitance, equal to the ratio of the charge stored to the potential difference of a capacitor.	<u>Farad</u>
D	This is the unit of inductance, equal to the ratio of magnetic flux and current that an inductor is capable of.	<u>Henry</u>



Tossup 4: Science — Biology

In diatoms, they are made of silicic acid. In algae, they consist of cellulose, but in fungi, they are made of chitin and contain no cellulose. Bacterial ones contain peptidoglycan, but archaeal ones do not. In Gram-positive bacteria, this traps dye on the bacteria, causing a purple stain. Name this layer outside of the cell membrane, which adds rigidity to a cell.	Cell wall (<i>do not accept cell membrane</i>)
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Bonus 4: Social Studies — U.S. History

Identify these facts related to the end of the Civil War.	
A	The war officially ended when a treaty was signed in this town. Appomattox Court House <i>(prompt on Appomattox, since Court House is part of the town's name)</i>
B	President Lincoln was assassinated by John Wilkes Booth while watching a play in this theater. Ford's Theater
C	This president of the Confederacy wasn't captured until a month after the war ended. Jefferson Davis
D	This April 6, 1865 battle in Virginia was one of the last of the war. Battle of Saylor's Creek



Tossup 5: Math — Algebra (Computational: 30 Seconds)

What is the period of the function y equals the absolute value of the sine of x ?	<u>Pi</u>
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Bonus 5: Fine Arts — Music

Identify these musical accessories.	
A	Horsehair is the preferred material for this device because it provides the ideal amount of friction. <u>Bow</u> (<i>for a violin, viola, cello, bass</i>)
B	The cup and cone are two types of these. <u>Mute</u>
C	This clip is often attached to wind instruments in order to carry music while a musician marches. It shares its name with a small harp. <u>Lyre</u>
D	Some guitar players use these small devices made of plastic, metal, or wood to get a more definitive pull or push on the string. <u>Pick</u>



Tossup 6: Social Studies — World History

128 Americans were killed when this ship sank, which led to public outrage over the thought that the Germans attacked a defenseless ship that was not related to the war. However, it turned out that this ship was carrying war supplies from America to Britain. Identify this ship that was an eventual cause for America joining World War I after it sank on May 7, 1915.	RMS <u>Lusitania</u>
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Bonus 6: Miscellaneous — Interdisciplinary

Answer the following about rainbows.		
A	Rainbows exist because of this separation of wavelengths, caused by each frequency having a slightly different speed in a given medium.	<u>Dispersion</u>
B	In Norse mythology, this god guards Bifrost, the rainbow bridge connecting Midgard and Asgard.	<u>Heimdall</u> (<i>HYME-doll</i>)
C	The ship Rainbow Warrior was sunk by agents of this government while docked in New Zealand. It had been preparing to observe nuclear testing in the Pacific.	<u>France</u>
D	Paul Williams and Kenneth Ascher wrote this song which was performed in 1979's "The Muppet Movie" by Kermit the Frog.	The <u>Rainbow Connection</u>



Tossup 7: Fine Arts — Visual Art

This man collaborated with Walt Disney on a short film titled Destino that was not completed until 2003. One of his more well known paintings is Soft Construction with Boiled Beans (Premonition of Civil War). Also the painter of the Crucifixion with Christ on a hypercube, identify this surrealist artist responsible for The Persistence of Memory.

Salvador Dalí

Bonus 7: Math — General

Name these terms related to angles.

A Two angles which add up to a straight angle are called this. **Supplementary angles**

B In this system, a circle has 2 pi of this dimensionless unit. **Radians**

C In this system, a circle has 360 of these. **Degrees**

D In this system, a circle has 400 of these. **Grad(ians)**



Tossup 8: Science — Earth Science

Associated with deep ocean trenches, they are formed when old ocean floor is forced under the newer sea floor. Many deep focus earthquakes occur in Indonesia because of a high number of these, which are the only areas deep enough for that type of earthquake to occur. Identify these deep areas of the earth that are found in convergent plate boundaries.	<u>Subduction zones</u>
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Bonus 8: Social Studies — Geography

Identify the canal given a clue.		
A	This canal, opened in 1869, connects the Red and Mediterranean Seas.	<u>Suez Canal</u>
B	Opened in 1824, this New York canal with 83 locks greatly improved inland transportation by providing an improvement over land transportation.	<u>Erie Canal</u>
C	This Massachusetts Canal connects a namesake bay with Buzzards Bay.	<u>Cape Cod Canal</u>
D	This Central American canal, opened in 1914, made it much easier for ships to pass from the Atlantic Ocean to the Pacific Ocean.	<u>Panama Canal</u>



Tossup 9: Math — Geometry (Computational: 30 Seconds)

In a circle of radius 5, a chord cuts a diameter at a right angle so that the diameter is in pieces of length 8 and 2. What is the length of this chord?	<u>8</u>
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Bonus 9: Literature — Literature

Answer the following that relate to terrible crimes in literature.	
A	The narrator of this Poe story murders an old man for fear of his eye, but later confesses after hearing the sounds of another body part. The <u>Tell-Tale Heart</u>
B	This King of Scotland is murdered by Macbeth in order to usurp his throne. <u>Duncan</u>
C	In this Shirley Jackson story, Tessie Hutchinson is a fervent believer in the town's annual ritual until she is the one chosen to be stoned to death. The <u>Lottery</u>
D	This Toni Morrison novel deals with the former slave Sethe (<i>SETH-uh</i>) who is reunited with the spirit of a daughter she killed years before. <u>Beloved</u>



Tossup 10: Literature — Literature

This man's 2006 Farewell Summer is a sequel to an earlier 1957 novel, both of which take place in Green Town, Illinois. This man, who has written more than 500 published works also has a star on the Hollywood Walk of Fame. Identify this man whose most famous novels include Dandelion Wine and Fahrenheit 451.

Ray Douglas Bradbury

Bonus 10: Science — Chemistry

Give the charge of each of these polyatomic ions.

A	Sulfite	<u>-2</u> (accept <u>2-</u>)
B	Phosphate	<u>-3</u> (accept <u>3-</u>)
C	Oxalate	<u>-2</u> (accept <u>2-</u>)
D	Permanganate	<u>-1</u> (accept <u>1-</u>)

END OF FIRST HALF – 2 minute timeout



Tossup 11: Literature — Mythology

<p>It is said that the first poisonous plants and flowers appeared from his spit. Enjoying a nap while on duty from time to time, he was put to sleep by water from the river Lethe, twice lulled to sleep by drugged honeycakes, in addition to Orpheus' lute. The offspring of Echidna and Typhon, identify this beast that guards the entrance to Hades, a giant three headed dog.</p>	<p><u>Cerberus</u> (<i>also accept <u>Kerberos</u></i>)</p>
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Bonus 11: Miscellaneous — Entertainment

<p>Identify these long-lived TV shows that were based on films.</p>		
<p>A</p>	<p>This 1994 film spawned three series, one of which is still on television. The first show was the longest running science fiction show in North American history.</p>	<p><u>Stargate</u></p>
<p>B</p>	<p>Richard Hooker, the book's author, and Robert Altman, the film's director supposedly despised this hospital drama/comedy that ran from 1972 to 1983.</p>	<p><u>M*A*S*H</u></p>
<p>C</p>	<p>Running from 1988 to 1994, Hoard Rollins takes over Sidney Poitier's (<i>PWAH-tee-ays</i>) role, and Carroll O'Connor takes over Rod Steiger's role.</p>	<p><u>In the Heat of the Night</u></p>
<p>D</p>	<p>On the air from 1997 to 2003, Kristy Swanson played the title character in the 1992 film.</p>	<p><u>Buffy the Vampire Slayer</u></p>



Tossup 12: Math — Algebra (Computational: 30 Seconds)

Calculate the greatest common denominator of 195 and 78.	<u>39</u>
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Bonus 12: Social Studies — World History

Identify the following people associated with Adolf Hitler.		
A	This Nazi party member was the Minister of Propaganda.	Paul Joseph <u>Goebbels</u>
B	This man founded the Gestapo, but is more well known for leading the Luftwaffe.	Hermann Wilhelm <u>Göring</u>
C	This man was the head of the SS and the concentration camps.	Heinrich <u>Himmler</u>
D	Though technically the Minister of Armaments, this man was the head architect of Nazi Germany.	Albert <u>Speer</u>



Tossup 13: Science — Astronomy

First observed in 1664, it was first examined up close by Voyager 1. Elliptical and 15 to 25 thousand miles wide, it rotates counterclockwise. Since it has a lower average temperature than its surroundings, astronomers believe it lies about five miles higher than the atmosphere surrounding it. Identify this Jovian object, a hurricane almost three times the size of Earth.

Great Red Spot

Bonus 13: Math — Calculus

Find the area bounded by y equals x and each of the following four curves.

A	y equals x squared	<u>1/6</u>
B	y equals x cubed	<u>1/2</u>
C	y equals x to the fourth power	<u>3/10</u>
D	y equals x to the sixth power	<u>5/14</u>



Tossup 14: Miscellaneous — Entertainment

<p>Its tenth anniversary in 2006 saw stops in Tucson, Salt Lake City, Mobile, Milwaukee, Philadelphia, and Honolulu. A Navajo blanket valued at up to half a million dollars is still the most valuable item to appear. Based on a British original, name this PBS show hosted by Mark L. Walberg in which people bring in their old stuff for appraisal, and in some cases discover rare treasures.</p>	<p><u>Antiques Roadshow</u></p>
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Bonus 14: Literature — Literature

<p>Answer these questions about famous character trios.</p>		
<p>A</p>	<p>The tragic love triangle of Camelot involved King Arthur, Sir Lancelot, and this Queen.</p>	<p>Queen <u>Guinevere</u></p>
<p>B</p>	<p>The famous Tea Party chapter of this book introduced the Mad Hatter, the March Hare, and the Dormouse.</p>	<p><u>Alice's Adventures in Wonderland</u></p>
<p>C</p>	<p>Starbuck was first mate, Stubb was second mate, and Flask was third mate aboard this ship captained by Ahab.</p>	<p><u>Pequod</u></p>
<p>D</p>	<p>Dmitri, Ivan, and Alexei are the title Brothers Karamazov in the last work by this Russian author.</p>	<p>Fyodor <u>Dostoyevsky</u></p>



Tossup 15: Social Studies — Current Events

<p>It began in the 1880s, and initially its only intent was to honor the first man to hold the office. It is celebrated on a Monday because of a 1968 bill by Congress; during the debate for that bill, it was suggested that it celebrate the birthdays of only two people. Name this federal holiday celebrated every February in honor of the leaders of the United States.</p>	<p>Presidents Day (<i>accept Washington's birthday; do not accept Lincoln's birthday</i>)</p>
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Bonus 15: Science — Earth Science

Identify these regions in the interior of the Earth.		
A	This is the outermost layer of the Earth.	Crust
B	This discontinuity defines the boundary between that outermost layer, and the other layers of the Earth.	Moho(rovicic) discontinuity
C	This is the layer directly underneath that discontinuity, which takes up almost three quarters of the volume of the Earth.	Mantle
D	This is the innermost portion of the Earth, composed of "outer" and "inner" layers.	Core



Tossup 16: Math — General

These devices have been drawn in sand for three millennia. The more familiar string-based variety was invented later, and is called the suanpan in China. While people often think of it as a tool for addition, it can perform square roots and other tasks as well. Name this device with strings and beads which can manipulate numbers.

Abacus

Bonus 16: Fine Arts — Visual Art

Given an artist's last name, identify the name they typically go by.

A	Sanzio	<u>Raphael</u>
B	van Rijn	<u>Rembrandt</u>
C	Buonarroti	<u>Michelangelo</u>
D	Niccolò di Betto Bardi	<u>Donatello</u>



Tossup 17: Literature — Literature

In 1966, he published the children's book *The Runaway Summer of Davie Shaw*, though he is best known for his works about families. *The Fourth K* dealt with a fictitious Kennedy nephew becoming president, while *The Family* deals with Pope Alexander the Sixth's family. His most famous family book, however, was published in 1969 and concerns the question of what lies behind real power. That book is about a man from Palermo and his children Santino, Frederico, Connie, and Michael. Identify this author of Sicilian heritage who wrote *The Godfather*.

Mario Gianluigi Puzo

Bonus 17: Math — Geometry

Find the surface areas of the following shapes.

A A cube with side length 8.

384

B A sphere with diameter 3.

9 pi

C A cone with radius 3 and height 4.

24 pi

D A cylinder with height 1 and diameter 4.

12 pi



Tossup 18: Science — Physics

<p>This law only applies for forces under the yield strength of the material, though some materials like rubber don't obey it at all. Integrating this law yields the equation one half kx^2 for elastic potential energy. Name this law of springs that states that F equals negative kx.</p>	<p><u>Hooke's law</u></p>
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Bonus 18: Social Studies — Geography

Identify these cities located along Route 66.		
A	This was the eastern terminus of the highway.	<u>Chicago, IL</u>
B	This was the initial western terminus of the roadway.	<u>Los Angeles, CA</u>
C	After a change in the route that was finished in 1936, the highway ended in this city.	<u>Santa Monica, CA</u>
D	This largest city of New Mexico was on the highway.	<u>Albuquerque, NM</u>



Tossup 19: Fine Arts — Music

<p>Iron and Steel, Prague, The Four Temperaments, Spring, Lobgesang (<i>LOHB-ge-zahng</i>), The Tragic, and Leningrad are famously-nicknamed ones. Zero and "double zero" are two strangely-numbered ones by Bruckner which were published after his first. Mahler was concerned about the number he wrote, the same number as Vaughn Williams, Bruckner, Dvorak (<i>d'VOR-zhak</i>), and most famously, Beethoven. Name this type of orchestral work, the most famous of which include Beethoven's nine.</p>	<p><u>Symphony</u></p>
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Bonus 19: Science — Biology

Identify these terms related to mitosis, or cell division.		
A	When a cell is not undergoing mitosis, it is in this phase of its life in which it grows and duplicates its DNA.	<u>Interphase</u>
B	In this phase of mitosis, the DNA in the cell nucleus condenses, and the nuclear envelope disintegrates.	<u>Prophase</u> (<i>accept <u>prometaphase</u></i>)
C	In this final phase of mitosis, the cell is pulled apart into two separate new cells, and its organelles are divided between those cells.	<u>Cytokinesis</u> (<i>do not accept <u>telophase</u></i>)
D	This cellular apparatus helps pull chromosomes to opposite sides of the cell during mitosis.	<u>Mitotic spindle apparatus</u> (<i>prompt <u>centromere</u></i>)



Tossup 20: Social Studies — U.S. History

<p>This event was preceded by failed peace talks, and the offending country sent a final message right before the attack began. Admiral Yamamoto thought that while the attack was necessary, they would just be awaking "a sleeping giant." Over 2,500 lives were lost, and the battleships Oklahoma and Arizona were destroyed. Name this December 7, 1941 attack that caused the United States to enter World War II.</p>	<p><u>Pearl Harbor</u></p>
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Bonus 20: Literature — Literature

<p>Answer the following about the poem that opens with the line: "By the shores of Gitchee Gumee, By the shining Big-Sea-Water..."</p>		
A	Give the title of the poem.	<u>The Song of Hiawatha</u>
B	This author wrote that poem based on Native Ojibway legend.	<u>Henry Wadsworth Longfellow</u>
C	Today the lake called Gitche Gumee is known by this name.	<u>Lake Superior</u>
D	This is the lover of the poem's title character.	<u>Minehaha</u>

END OF MATCH



Tossup A: Literature — Literature

Son of Tobias and Eileen nee Prince, this man continuously deals with repressed emotions because of his abusive father and rough schoolmates, who ostracized him because of his awkward social graces and poor attire. To make up for this, he has found a new father figure in the form of an elderly associate and takes out his anger on hapless students. Name this resident of Spinner's End, who is succeeded by Horace Slughorn as Potions Master in the sixth Harry Potter book.

Professor Severus Snape

Bonus A: Miscellaneous — Sports

Given a Major League Baseball career record, identify the player who holds it.

A	Home runs	Barry <u>Bonds</u>
B	Wins	Cy <u>Young</u>
C	Strikeouts for a pitcher	Nolan <u>Ryan</u>
D	Hits	Pete <u>Rose</u>



Tossup B: Science — Chemistry

Sometimes used for redox or complexing reactions, the endpoint of this procedure can be detected by voltage meters or, more commonly, a color change associated with a pH indicator. Often performed by adding a solution from a buret (*byur-ET*) into a flask, name this chemical laboratory method of determining the concentration of a reactant, usually an acid or base.

Titration (*accept volumetric analysis*)

Bonus B: Social Studies — Other

Given a Caribbean or Latin American country, identify its official language.

A	Suriname	<u>Dutch</u>
B	Belize	<u>English</u>
C	Panama	<u>Spanish</u>
D	Saint Martin	<u>French</u>



Tossup C: Math — Other (Computational: 30 Seconds)

A set has five numbers, which are 19, 6π , $8e$, 200, and e times π . What is the median of that set?	<u>19</u>
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Bonus C: Science — Astronomy

Answer these questions related to Soviet space missions.		
A	This Soviet satellite was the first manmade satellite launched.	<u>Sputnik I</u>
B	This dog was the first animal to orbit the Earth, doing so in a Soviet spacecraft.	<u>Laika</u>
C	This man was the first man to orbit the Earth, in the Vostok 1 mission.	Yuri <u>Gagarin</u>
D	In 1987, two cosmonauts became the first humans to spend over a year in space, doing so in this Soviet space station which de-orbited in 2001.	<u>Mir</u>



Tossup D: Social Studies — U.S. History

He started his first law practice in Atlanta in 1882, three years after graduating from Princeton. After several political writings and serving as president of Princeton, he was elected governor of New Jersey in 1910. Name this 28th president of the United States of America, whose tenure oversaw World War I.

Thomas Woodrow Wilson

Bonus D: Math — Algebra

Given a geometric series's first term and common ratio, calculate the infinite sum if it is convergent, or state that it is infinite.

A	First term 5, common ratio 3.	<u>Infinite</u> (<i>accept <u>divergent</u></i>)
B	First term 2, common ratio 1/2.	<u>4</u>
C	First term 0, common ratio 1.	<u>0</u>
D	First term 1, common ratio -4/5.	<u>5/9</u>



Tossup E: Fine Arts — Music

<p>It weighs nearly 31,000 pounds, and is the largest instrument of its kind in the city in which it is located. Originally tuned to "E", it no longer rings to that note due to a crack which developed in it shortly after being delivered from the Whitechapel Bell Foundry, which also supplied the Liberty Bell. Name this famous bell which sounds the hours after the four quarter bells play the original Westminster Quarters.</p>	<p><u>Big Ben</u></p>
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Bonus E: Literature — Literature

<p>Identify these literary crazies.</p>		
<p>A</p>	<p>This man goes crazy when he realizes he can't save his dead brother Allie—or any other children—from growing up and becoming phony.</p>	<p>Holden <u>Caulfield</u></p>
<p>B</p>	<p>He feigns insanity in an attempt to be sent home from the air force. Unfortunately, it is that wish that makes him obviously sane.</p>	<p>John <u>Yossarian</u></p>
<p>C</p>	<p>Contemporaries of this fireman believe him to be insane when he develops a fondness for books and the people who read them.</p>	<p>Guy <u>Montag</u></p>
<p>D</p>	<p>This insane revolutionary defies Nurse Ratched to hold a raucous party. In return, he is given a lobotomy and eventually dies at the hands of Chief Bromden.</p>	<p>Randle <u>McMurphy</u></p>