



1. One poem by this man contains the line "He is all pine, and I am all apple orchard." In another of his poems, the speaker's "little horse must think it queer" that he pauses. This writer ended that poem with the line "And miles to go before I sleep," and another of his poems concludes "And that has made all the difference." For 10 points, name this American poet who set many poems in New England and wrote "Mending Wall," "Stopping by Woods on a Snowy Evening," and "The Road Not Taken."

ANSWER: Robert Lee **Frost**

052-12-36-06101

2. In one feature, this man repeatedly invites the star of *Superbad* to tickle him. In addition to his special *Between Two Ferns*, he also co-stars with Paul Rudd and Steve Carrell in a 2010 comedy about businessmen who "collect" idiots. For 10 points, name this cast member of *Dinner for Schmucks* who is also known for his role as Alan in *The Hangover* and for his large beard.

ANSWER: Zach **Galifianakis**

118-12-36-06102

3. This man responded to Edmund Burke by defending the French Revolution in *The Age of Reason*. The first part of his *American Crisis* series claims that "these are the times that try men's souls". This man's most famous work argues for a spilt from Britain in the language of everyday people. For 10 points, name this writer who encouraged the American Revolution in his pamphlet *Common Sense*.

ANSWER: Thomas **Paine** [or Tom **Paine**]

005-12-36-06103

4. In the original performance of this work, one character renders the antagonist powerless by ripping off a part off of his body. That antagonist had brought his daughter to a ball and tricked Siegfried into announcing he would marry that daughter, making Von Rothbart's spell on a princess supposedly unbreakable. For 10 points, name this ballet by Pyotr Tchaikovsky in which Princess Odette is cursed to daily become the title bird.

ANSWER: **Swan Lake** [or **Lebedinoye ozero**]

002-12-36-06104

5. With Henri Giraud (JEE-row), this leader was co-president of the Committee of National Liberation for his country. He eventually granted independence to Algeria. This leader gave the Appeal of June 18th calling for resistance during World War II and appointed leaders of the resistance to his government after the Vichy government of Marshal Pétain was removed. For 10 points, name this leader of the Free French during World War II and first president of the Fifth Republic.

ANSWER: Charles André Joseph Marie **de Gaulle**

124-12-36-06105

6. The constant in this equation is equal to Avogadro's number times Boltzmann's constant. A corrected form of this law has terms to account for intermolecular attraction and the volumes of particles. That law with parameters called *a* and *b* is named for van der Waals. This law is a combination of Gay-Lussac's Law, Charles's Law, and Boyle's Law. For 10 points, name this law which sets PV equal to NRT, a law governing the least dense form of matter.

ANSWER: **ideal gas** law [prompt on partial answer]

132-12-36-06106

7. The narrator of this poem laments “Sir, ‘twas all one! My favor at her breast, the dropping of the daylight in the West” prior to recalling how he “gave commands,” after which “all smiles stopped together.” At the end of this poem, the speaker calls attention to a statue of Neptune taming a sea-horse created by Claus of Innsbruck, and the title painting was done by Fra Pandolf. For 10 points, name this dramatic monologue spoken by the Duke of Ferrara, a work of Robert Browning.

ANSWER: “**My Last Duchess**”

014-12-36-06107

8. A glottal stop in this language is represented by the letter “hamza.” It has a variant called “Levantine.” In 1885, a work written in this language was translated by Sir Richard Burton. The English words "alcohol" and "algebra" are derived from this language. The names of several Spanish locations, such as the Alhambra, come from this language. The epic “One Thousand and One Nights” was written in this language. For 10 points, name this language which the Quran is written in.

ANSWER: **Arabic** [or Classical **Arabic**; or **fusha**; or Modern Standard **Arabic**]

052-12-36-06108

9. After overwhelmingly defeating Alton Parker, this man began instituting his Square Deal Program. He won a Nobel Prize for his role in negotiating the Treaty of Portsmouth between Japan and Russia. This man was known as the "trustbuster" for his anti-monopoly activism, and started the Bull Moose Party to run for president in 1912. He fought with the Rough Riders in the Spanish American War. For 10 points, name this twenty-sixth president of the United States.

ANSWER: **Theodore Roosevelt** [or **Teddy Roosevelt**; or **TR**; prompt on **Roosevelt**]

015-12-36-06109

10. Tritanopia is a rare form of this disorder linked to chromosome 7. This disorder is diagnosed by the Farnsworth-Munsell and Ishihara tests. The most common form is X-linked, but can develop from injury or macular degeneration. Cone cells are either missing or malfunctioning in this disorder. For 10 points, name this disorder in which individuals have difficulty distinguishing between hues, especially red and green.

ANSWER: **colorblindness** [or **blue-yellow colorblindness** or **red-green colorblindness**]

124-12-36-06110

11. This man constructed a flotilla on Lake Champlain that found success at an engagement near Valcour Island. During a siege of Boston, he joined Richard Montgomery in an unsuccessful assault of Quebec City. He teamed up with Ethan Allen to sack Fort Ticonderoga. This collaborator with Major Andre expected to be given the command of West Point and to give it up for twenty thousand pounds. For 10 points, name this notorious traitor during the American Revolution.

ANSWER: Benedict **Arnold**

015-12-36-06111

12. CCDs emit the "dark" form of this due to random events in the depletion layer. Diodes allow this quantity to only pass in one direction. The density of this quantity is proportional to the curl of the magnetic field it exists in, as shown in Ampere's Law. Electric power equals voltage times this quantity, and Ohm's Law states resistance equals voltage divided by this. For 10 points, name this flow of electric charge that comes in direct and alternating varieties, measured in amps.

ANSWER: electric **current** [or **amperes** until “amps;” do not accept “voltage”]

121-12-36-06112

13. This state's town of Rosewood was abandoned after a 1923 racially motivated massacre. One conflict in this state began when the Treaty of Payne's Landing was violated by Osceola. Juan Ponce de Leon looked for the Fountain of Youth in this state, which was the site of the Seminole Wars and the Spanish settlement of St. Augustine. Disputed votes in this state swung the 2000 election between Bush and Gore. For 10 points, name this state with capital Tallahassee and cities Miami and Orlando.

ANSWER: **Florida**

015-12-36-06113

14. In Hungarian, these phonemes obey a law of "harmony," based on whether they are "front" or "back" ones, and whether they are rounded. In English, "reduced" ones of these appear in unstressed syllables. They are represented in the International Phonetic Alphabet with symbols such as "barred I" and schwa. In the fifteenth century, English experienced a "great shift" of these in which some of them became diphthongs. For 10 points, name these sounds that are contrasted with consonants.

ANSWER: **vowels**

142-12-36-06114

15. This man took his niece Harriet Lane with him when he was appointed minister to the United Kingdom by Franklin Pierce. He worked with Pierre Soulé (sue-LAY) and John Mason to draft the Ostend Manifesto, which recommended acquiring Cuba. This man's Vice President John C. Breckinridge lost an election along with John Bell and Stephen Douglas to try and follow this man in office. For 10 points, name this bachelor President who failed to avert the Civil War and was succeeded by Lincoln.

ANSWER: James **Buchanan**

015-12-36-06115



1A. What capital of Australia was designed by Chicago architect Walter Burley Griffin and his wife?

ANSWER: Canberra

1B. What U.S. state contains the National Parks of Arches, Bryce Canyon, and Zion?

ANSWER: Utah

2A. This is a 10-second calculation question. What is the cosine of the third-quadrant angle whose reference angle is 45 degrees?

ANSWER: one over square root of 2 [or square root of 2 over 2; or radical in place of "root"]

2B. This is a 10-second calculation question. Find the volume of a rectangular prism of side lengths 4, 6, and 10.

ANSWER: 240

3A. What English poet wrote the allegorical epic *The Fairie Queene* and names a type of sonnet?

ANSWER: Edmund Spenser

3B. Identify the continent which is home to Peter Carey, the author of *Illywhacker* and *True History of the Kelly Gang*.

ANSWER: Australia

4A. What All-Pro safety drafted out of Southern California is the defensive leader of the Pittsburgh Steelers?

ANSWER: Troy Polamalu

4B. This is a 20-second calculation question. Find all solutions to the equation 2 over the quantity x minus 4, equals the quantity x minus 1 over the quantity x minus 3.

ANSWER: $x = 2$ and $x = 5$ [both answers required, either order acceptable]

5A. This is a 20-second calculation question. Find the median of the following set of numbers: {100, 1000, 10, 50, 40, 300}

ANSWER: 75

5B. What Egyptian goddess reassembled her husband Osiris after he was chopped into pieces, and also gave birth to Horus?

ANSWER: Isis [or Aset; or Usat; or Esee]

6A. Name the now-defunct European country whose former leaders include Erich Honecker and Walter Ulbricht (VALL-ter OOL-breckt).

ANSWER: East Germany [or Ostdeutschland; or German Democratic Republic; or GDR; or Deutsche Demokratische Republik; or DDR; do not accept or prompt on "Germany"]

6B. In July 2011, what type of disaster occurred in Montana's Yellowstone River?

ANSWER: oil spill [or obvious equivalents]

7A. Name the figure of speech similar to metonymy in which part of a thing is used to refer to the whole.

ANSWER: synecdoche (sih-NEK-duh-kee)

7B. The sheet-metal-and-wire work *Lobster Trap and Fish Tail* is an example of what form of kinetic art, invented by Alexander Calder?

ANSWER: **mobiles**

8A. Name the plants Gregor Mendel used to conduct his genetic experiments.

ANSWER: **pea** plants

8B. The fifth version of this programming language is currently under development. Name this fundamental language of the internet originally implemented in 1990 that uses greater than and less than signs to indicate tags.

ANSWER: **HTML** [or **Hypertext Markup Language**]

9A. Name the American poet and abolitionist who wrote “Barbara Frietchie” and “Snow-Bound.”

ANSWER: John Greenleaf **Whittier**

9B. What videogame console that can have a “Red Ring of Death” is the only one on which the latest releases in the *Fable* and *Halo* series are available?

ANSWER: **Xbox 360** [do not accept or prompt on "Xbox"]

10A. This is a 30-second calculation question. Find the common ratio to a geometric sequence whose first term is 48 and whose sixth term is 1.5.

ANSWER: **1/2** [or **0.5**]

10B. This is a 30-second calculation question. A team has a 60% probability of winning immediately after a win and a 40% probability of winning immediately after a loss. If it wins its first game, what is the probability it will win exactly one of its next two games?

ANSWER: **40%** [or **0.4**; or **2/5**]



1. One suggestion for getting better results in this laboratory technique is to dip the wire loop in a solution of hydrochloric acid before dipping it in the test solution. In this test, the presence of an alkaline residue can distinguish between sodium and lithium. This test is based on the spectral emission lines of different elements upon heating. For 10 points, a Bunsen burner is used to create the namesake heat source in what test for visually identifying elements in an unknown solution?

ANSWER: **flame tests**

003-12-36-06117

2. The protagonist of this work is delighted to discover a bowl of milk with slices of bread floating in it, and his sister removes all the furniture from his room. In this story, the protagonist is injured by a hail of apples thrown by his father, and he dies after he disgusts three lodgers with his appearance, which eventually even repulses his sister Grete. For 10 points, name this story about Gregor Samsa's transformation into a giant insect, a work of Franz Kafka.

ANSWER: "The **Metamorphosis**" [or *Die Verwandlung*]

014-12-36-06118

3. This mineral lies at the bottom of Bowen's Reaction Series, and two common varieties of this mineral are tiger's eye and chalcedony (KHAL-suh-dohn-ee). Many analog wristwatches use the piezoelectric property of this mineral to keep time. The most common form of this mineral is formed with minute fluid inclusions and is the "milky" type. When this mineral is translucent gray it is called "smoky". For 10 points, name this silicate that is the second most common mineral in the Earth's crust after feldspar.

ANSWER: **quartz** [prompt on "silicon dioxide"]

119-12-36-06119

4. A mixture of carbon monoxide and the natural form of this element is called syngas. The Lyman and the Balmer series were developed to describe the spectral patterns of this element. The ionized form of this element is at the heart of Bronsted-Lowry theory. Electrolysis of water produces the gaseous form of this element at the cathode. In the Haber process, the diatomic form of this element is mixed with nitrogen gas to form ammonia. For 10 points, name this lightest chemical element.

ANSWER: **hydrogen**

064-12-36-06120

5. One character in this play explains to her liquor-drinking maid her childhood dream of becoming a concert pianist, which is irreclaimable because her hands are damaged by rheumatism. Dr. Hardy recommends a sanatorium for the central family's son with tuberculosis, Edmund, whose brother Jamie scorns their mother Mary for her morphine addiction. For 10 points, name this posthumously published play about the Tyrone family written by Eugene O'Neill.

ANSWER: **Long Day's Journey Into Night**

014-12-36-06121

6. The original settlement on the site of this city was named Lutetia by the Romans. Montmartre (mo-MAR-tuh) is a hill in this city that is the site of Sacre Coeur Cathedral. The Pont-Neuf bridge connects the Ile de la cite (EEL day la SEE-tay) to the mainland in this city. The Left Bank in this city includes the Latin Quarter, which is the location of the Sorbonne. The Right Bank area of this city includes the Tuileries and Louvre Palaces. For 10 points, name this home of Notre Dame cathedral.

ANSWER: **Paris**

027-12-36-06122

7. This man sought to increase the number of multiple births among sheep at Beinn Breagh (BEN VREE-ah) and also developed a precursor to the iron lung. With Casey Baldwin, this man worked on hydrofoils, and his metal detector was used to attempt to find the bullet in President Garfield. Experiments headed by this man led to a commercially viable form of Thomas Edison's phonograph, and this man's photophone inspired modern fiber optics. For 10 points, name this inventor of the telephone.

ANSWER: Alexander Graham **Bell**

105-12-36-06123

8. This poem addresses a man who is “really in the total animal soup of time” and describes people “dragging themselves through the negro streets at dawn.” The second section references a god referred to as “the incomprehensible prison” named Moloch. This poem’s final section repeats the line “I’m with you in Rockland” in reference to mental patient Carl Solomon, and this poem begins “I saw the best minds of my generation destroyed by madness.” For 10 points, name this long poem by Allen Ginsberg.

ANSWER: “**Howl**”

014-12-36-06124

9. An account of this event was given by Franz von Harrach (HAR-rahck), who was on a car sideboard when it happened. This event happened after Nedjelko Cabrinovic (ned-YEL-koe kah-BRIN-oh-vitch) threw a grenade at that car. One victim of this event told another, "Sophie, don't die. Stay alive for the children!" after they were shot by Gavrilo Princip (gahv-REE-loe prin-SEEP). For 10 points, name this assassination in Sarajevo (sar-ah-YAY-voe) that is considered the immediate cause of World War I.

ANSWER: **assassination** of Archduke **Franz Ferdinand** [or obvious equivalents for **assassination**; do not prompt if either "Franz" or "Ferdinand" is given by itself]

003-12-36-06125

10. William Tyndale was burned at the stake for making one of these for English speakers. Miles Coverdale preserved many "latinisms" that were popularized by the Douay-Rheims version of this object. Alcuin (AI-COO-in) of York improved on another version of this object that was the first Latin one not derived from the Septuagint (sept-TOO-a-jint). That version, the Vulgate, was created by Jerome and was the basis for one commissioned by King James I. For 10 points, name this collection of Christian scripture.

ANSWER: translations of the **Bible** [or obvious equivalents like “translating the **Bible**”]

121-12-36-06126

11. The set of these mathematical entities defining a space is called a "basis." These entities can be treated as rank one tensors or as one-dimensional matrices. Two of these are orthogonal when their product is 0. Operations performed on these objects include the dot product and cross product. For 10 points, name these mathematical objects that have both magnitude and direction and are contrasted with scalars.

ANSWER: **vectors**

080-12-36-06127

12. In this novel, the Pinchfield resident Frederick pays for timber with counterfeit money. Other events in this novel include the Battle of the Windmill and a meeting at which The Seven Commandments are proposed. History is rewritten by the propagandist Squealer, and the glue factory is the ultimate destination of the horse Boxer. At the beginning of this novel, Mr. Jones is overthrown by such creatures as the pig Napoleon. For 10 points, name this allegorical novel by George Orwell.

ANSWER: **Animal Farm**

014-12-36-06128

13. This country was the site of the Rivonia Trial, before which one future leader of this country gave the "I am Prepared to Die" speech. Hundreds of unarmed protestors in this country were injured or killed in Sharpeville while demonstrating against its use of pass laws. One policy in this country included the creation of ten Bantustans for a portion of its population. For 10 points, name this African country that F.W. de Klerk and Nelson Mandela led out of the racially-based policy of apartheid.

ANSWER: Republic of **South Africa**

139-12-36-06129

14. Low serum levels of this substance's ionic form stimulates increased PTH secretion. This element's most stable carbonate mineral polymorph converts to aragonite (uh-RAG-un-aight) at high temperatures, exhibits birefringence ("BUY"-ree-"fringe"-ens), and is a 3 on the Mohs scale. Cartilage turns to bone in a process named for this metal, whose absorption requires vitamin D. For 10 points, identify this alkaline earth metal found in limestone, with symbol Ca.

ANSWER: **calcium** [or **Ca** before it is read]

133-12-36-06130

15. This composer set poems from Hans Bethge's *The Chinese Flute* in a work written for two vocalists and orchestra. This composer, whose *Symphony No. 1 in D Major* is known as the "Titan," set the final scene from *Faust* to music in his *Symphony No. 8 in E-Flat Major*, which derives its nickname from the large number of musicians required to perform it. For 10 points, name this Austrian composer of *The Song of the Earth* and *Symphony of a Thousand*.

ANSWER: Gustav **Mahler**

014-12-36-06131



1. One instrument used to measure this finds the ratio between the hanging mass and the sitting mass. Amonton's Second Law states that it is independent of contact area. Terminal velocity is reached when this force equals the driving force. The coefficient for the static type of this phenomenon is typically higher than that of the kinetic type, both symbolized μ . For 10 points, name this non-conservative force that is perpendicular to the normal force and resists motion.

ANSWER: **friction** [or **drag** or **damping**]

124-12-36-06132

2. At the beginning of this work, a watchman spies a beacon signaling the victory of the central character, who is later stabbed to death in a bathtub. This work ends with the lament of the captured princess Cassandra for the title character, who is murdered as the result of a conspiracy between his cousin Aegisthus and his wife Clytemnestra. For 10 points, name this first play in Aeschylus's *Oresteia* trilogy about the brother of Menelaus who commanded the Greeks at Troy.

ANSWER: **Agamemnon**

014-12-36-06133

3. The London Stock Exchange recently ended an attempt to purchase a stock exchange in this country. A May 2011 election in this country saw the New Democrat Party become the Official Opposition under Jack Layton, and the near-collapse of the Bloc and Liberals. For 10 points, name this country where Conservative Stephen Harper was re-elected as Prime Minister.

ANSWER: Federation of **Canada**

139-12-36-06134

4. This artist's depiction of fireworks over Battersea Bridge prompted John Ruskin to accuse him of "throwing a pot of paint in the public's face." This artist of *Nocturne in Black and Gold--The Falling Rocket* painted a portrait of Thomas Carlyle, the second entry in his *Arrangement in Grey and Black* series. A portrait by this artist shows a woman in a white hat sitting in a chair with her hands in her lap. For 10 points, name this artist best known for an 1871 portrait of his mother.

ANSWER: James Abbott McNeill **Whistler**

088-12-36-06135

5. The self type of this technique is used by animals with false eyes, like moths. Mantella frogs use this advantage by aposematic coloration. Some spiders use this technique by smell, but most animals use it visually. The Batesian type of this technique applies to equally unpalatable organisms, in contrast with Mullerian. For 10 points, name this technique to escape predation, exemplified by viceroy's resembling monarch butterflies.

ANSWER: **mimicry** [or **Batesian mimicry** before "self type"]

124-12-36-06136