



1. One character in this film is accused of animal cruelty after feeding chicken to a chicken. Another character is Christie, who sets a scarf on fire after her boyfriend gives it to her. Justin Timberlake plays Sean Parker, who is arrested for cocaine possession. David Fincher directed this film, which is interspersed with scenes from a deposition between the Winklevoss twins and Mark Zuckerberg. For 10 points, name this 2010 film based on the founding of Facebook.

ANSWER: *The **Social Network***

015-12-36-01101

2. For a binary expression  $x$  in Boolean algebra this operator is defined as one minus  $x$ . It cannot be defined with only conjunction and disjunction, and DeMorgan's Laws explain how it is distributed over expressions with logical OR and logical AND. For 10 points, name this unary operator which makes true boolean expressions into false ones and false expressions into true ones.

ANSWER: logical **not** [or **negation**; or logical **complementation**; do not accept "bitwise not"]

093-12-36-01102

3. This character "sprang from his Platonic conception of himself" after losing twenty-five thousand dollars of inheritance money to Ella Kaye. When this character is told "you can't repeat the past," he incredulously replies "Why of course you can!" He hosts lavish parties at his mansion on West Egg in the hopes of reuniting with Tom Buchanan's wife, his former love Daisy. For 10 points, name this character befriended by Nick Carraway, the "great" title character of a novel by F. Scott Fitzgerald.

ANSWER: Jay **Gatsby** [or the Great **Gatsby**; or **Jay** Gatsby; or James **Gatz**; or **James** Gatz]

004-12-36-01103

4. A constant 39-degree Celsius pool can be found in this body of water's Mineral Beach. This remnant of the prehistoric Lake Lisan is connected by the Arabah to the Gulf of Aqaba and the Sea of Galilee. It is also adjacent to some caves near Qumran, in which several scrolls were discovered in 1947. For 10 points, Jordan and Israel share what lake containing the lowest point of dry land and a very high salinity?

ANSWER: **Dead** Sea [or al-Bahr al-**Mayyit**; or Yam **Ha-Melah**; prompt on **Salt** Sea]

020-12-36-01104

5. V, U, W, and L refer to shapes in graphs characterizing these phenomena and their aftermaths. A policy of "tight money" created by Paul Volcker was the cause of one in 1981. Combined with near-zero interest rates, these situations can turn into liquidity traps. The most recent one was caused by a subprime mortgage crisis following the collapse of the housing bubble. Two consecutive quarters of declining GDP define, for 10 points, what slowdown of economic activity?

ANSWER: **recession**

020-12-36-01105

6. One song by this artist begins "Lights out tonight, trouble in the heartland" and states "I believe in the hope, and I pray that some day it may raise me" above the title "Badlands." In another song, he sings "Baby this town rips the bones from your back" and "We gotta get out while we're young" because "tramps like us" have the title attribute. For 10 points, name this leader of the E Street Band whose albums include *Born in the USA* and *Born to Run*.

ANSWER: Bruce **Springsteen**

014-12-36-01106

7. In this novel, one character hangs a tapestry depicting the Biblical story of David and Bathsheba and lives with a doctor compared to a leech. A child in this work answers that she was plucked off a bush of wild roses when Mr. Wilson asks, "Who made thee?" That child, Pearl, is the daughter of Reverend Dimmesdale, who is tormented by Chillingworth. For 10 points, Hester Prynne wears the title mark of adultery in what novel by Nathaniel Hawthorne?

ANSWER: *The Scarlet Letter*

034-12-36-01107

8. Although he is not Apollo, this figure fathered a son with Chione [KYE-oh-nee] named Autolycus [auto-LIE-cuss]. This son of Maia [MAYA] once lulled Argos to sleep in order to let Io [EYE-oh] roam the world. This god stole the cattle of Apollo, to whom he gave his lyre made from a tortoise shell. This god also helped Perseus slay Medusa by lending him his winged sandals. For 10 points, name this messenger god of the Greeks.

ANSWER: **Hermes** [or **Mercury**]

048-12-36-01108

9. Last year, JAXA launched Akatsuki to explore this planet. Alpha, Beta, and Ovda Regio are three highland regions on this planet, which lie on the continent Ishtar Terra, home to its highest point Maxwell Montes [MOHN-tess]. This planet is the brightest natural object in the night sky after the moon. Carbon dioxide is the predominant gas in its atmosphere, which also contains sulfuric acid clouds. The surface of this planet is highly volcanic. For 10 points, name this second planet from the Sun.

ANSWER: **Venus**

020-12-36-01109

10. The Cabots were part of an elite in this city called the "Brahmins" by Oliver Wendel Holmes, Sr. A major source of supplies to this city was cut off by a namesake "Port Act." Samuel Maverick and Crispus Attucks were two of five killed in 1770 in this city. Mohawk costumes were worn by Sons of Liberty during another event in this city. For 10 points, name this colonial capital city where a Massacre and Tea Party took place.

ANSWER: **Boston**

020-12-36-01110

11. One disease attacking this organ is diagnosed by finding anti-peroxidase antibodies. Another autoimmune disease of this organ causes exophthalmos, or eye-popping. Besides Hashimoto's disease and Graves disease, this organ is also dysfunctional in cretinism and myxedema. This organ's parafollicular cells produce calcitonin. It enlarges in patients who are deficient in iodine, causing goiter. For 10 points, name this gland in the neck.

ANSWER: **Thyroid** gland

066-12-36-01111

12. Mikheil Saakashvili (saw-kahsh-VEE-lay) led a revolution in Georgia named for this flower that ousted Eduard Shevardnadze (sheh-verd-NAHD-zuh) from power. Richard Neville, earl of Warwick, became known as the Kingmaker in a war named for this flower. In that war named for this flower, the Battle of Towton allowed Edward IV to take the throne. For 10 points, give this namesake flower of a war between the Houses of York and Lancaster that ended with Henry VII's victory at Bosworth Field.

ANSWER: **Roses** [or **Rose** Revolution; or Wars of the **Roses**]

123-12-36-01112

13. This poet wrote "Bright star, would I were steadfast as thou art" in a poem possibly expressing his love for Fanny Brawne, whom he could not marry because he died of tuberculosis at age twenty-five. This poet exclaimed "Thou wast not born for death, immortal bird!" in his "Ode to a Nightingale," one of his "spring odes" alongside one that claims "Beauty is truth, truth beauty." For 10 points, name this British Romantic poet of "Ode on a Grecian Urn."

ANSWER: John **Keats**

080-12-36-01113

14. This man argued that religion is a barrier to political freedom in an essay responding to Bruno Bauer's book *The Jewish Question*. This member of the Young Hegelians introduced the distinction between use-value and exchange-value. Another work by this man calls for the abolition of private property and the promotion of the working-class proletariat. For 10 points, name this man who claimed that "a spectre is haunting Europe" and collaborated with Friedrich Engels on *Das Kapital* and *The Communist Manifesto*.

ANSWER: Karl Heinrich **Marx** [do not accept "Friedrich Engels"]

130-12-36-01114

15. In this work, a small grindstone is left permanently red after a crowd sharpen their weapons on it. In its third book, "The Track of a Storm," a drugged man is placed in a carriage after the protagonist switches clothes with him. In this novel, the names of guillotine victims are encoded in the knitting of Madame Defarge. For 10 points, Sydney Carton and Charles Darnay are the protagonists of what novel beginning "It was the best of times, it was the worst of times," written by Charles Dickens?

ANSWER: A ***Tale of Two Cities***

020-12-36-01115



1A. Name the physically large U.S. state whose major population centers include Missoula, Billings, and Butte.

ANSWER: **Montana**

1B. Identify the biblical king who was depicted readying a sling in a Bernini statue and standing in a *contrapposto* pose in a famous marble nude sculpted by Michelangelo.

ANSWER: **David** [or **Daud**; or **Dawid**; or **Dawud**]

2A. Pegmatite, rhyolite and granite are all this type of rock. Name this type of rock formed by the cooling and solidification of magma or lava.

ANSWER: **igneous** rocks

2B. Name the scientist who developed an early telescope and was persecuted by the Catholic Church for supporting the heliocentric theory.

ANSWER: **Galileo** Galilei

3A. This is a 10-second calculation question. What is the sine of the second-quadrant angle that has a reference angle of 30 degrees?

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

3B. This is a 10-second calculation question. Solve for  $x$ :  $2x + 7 = 15$ .

ANSWER:  $x =$  **4**

4A. This city contains the cave system Zhoukoudian (zow-KOO-dee-an) and the Gate of Heavenly Peace. Identify this location of dramatic 1989 pro-democracy protests in Tiananmen Square.

ANSWER: **Beijing** [or **Peking**; or **Pei-ching**]

4B. What producer of the iLife multimedia suite recently surpassed Microsoft as the most valuable tech company in the world?

ANSWER: **Apple** Inc.

5A. Identify the nineteenth century Kentucky politician who was Secretary of State after the so-called 'corrupt bargain' and was often called the "Great Compromiser."

ANSWER: Henry **Clay**

5B. This man wrote that "the wages of sin is death" in a letter to the Romans and was blinded on the road to Damascus. Name this early saint that wrote thirteen namesake epistles in the New Testament.

ANSWER: Saint **Paul** of Tarsus [or **Saul** of Tarsus]

6A. This is a 20-second calculation question. An obelisk is formed by placing a square pyramid of height 3 on top of a rectangular prism of height 5. If the base of both the pyramid and the prism has area 4, what is the volume of the obelisk?

ANSWER: **24**

6B. This is a 20-second calculation question. What is the median of the following set? {1, 3, 7, -2, -4, 8, 9, 2, 1}

ANSWER: **2**

7A. Name this letter that represents Young's Modulus, the electric field, and a mathematical constant equal to about 2.7.

ANSWER: **E**

7B. Name this member of the four fundamental forces that occurs in the nucleus and causes beta decay. It is caused by W and Z bosons and contrasted with a more powerful force.

ANSWER: **Weak** Nuclear Force or Interaction

8A. Metastasio and Lorenzo da Ponte were famous writers in this genre. Name this term, meaning "little book", that denotes all of the text used in an operatic work.

ANSWER: **libretto** [or **libretti**; or **librettos**]

8B. It includes the "March to the Scaffold" fourth movement and was inspired by Harriet Smithson. Name this Romantic programmatic symphony composed by Hector Berlioz.

ANSWER: **Symphonie fantastique**: *Épisode de la vie d'un Artiste...en cinq parties* [or **Fantastic Symphony**: *An Episode in the Life of an Artist, in Five Parts*]

9A. This is a 30-second calculation question. Find all real values of  $x$  that satisfy the equation  $x^4 - 256 = 0$ .

ANSWER: **{4, -4}** [or  $x = \mathbf{4}$  and  $x = \mathbf{-4}$ ]

9B. This is a 30-second calculation question. When rolling two standard six-sided dice, what is the probability of rolling a number greater than 8? Express your answer as a fraction in lowest terms.

ANSWER: **5/18**

10A. What world leader was excoriated anew in July 2011 for his 2007 hiring of scandal-tainted Andy Coulson as communications director?

ANSWER: David William Donald **Cameron**

10B. What American poet authored such poems as "Sunday Morning" and "The Emperor of Ice Cream?"

ANSWER: Wallace **Stevens**



1. During World War II, over four thousand of this country's officers were executed in the Katyn Massacre. This country was the home to the Lenin Shipyards in its city of Gdansk, where a trade union was targeted by its leader Wojciech Jaruzelzki (VOY-check ya-RUE-zel-ski). After his rule, this country was led by the head of its Solidarity trade union. In the eighteenth century, this country was partitioned three times. For 10 points, name this country once led by Lech Walesa with capital Warsaw.

ANSWER: Republic of **Poland** [or Rzeczpospolita **Polska**]

048-12-36-01117

2. In this novel, the protagonist's brother John gives speeches promoting miners' rights but does not incite the crowd to violence out of fear of imprisonment. Toward the end of this novel, Napoleon Letsitsi brings agricultural improvements to Ixopo. Earlier, the white racial equality activist Arthur Jarvis is murdered by the protagonist's son Absalom, who is subsequently executed. For 10 points, name this novel following Reverend Stephen Kumalo written by Alan Paton.

ANSWER: ***Cry, the Beloved Country***

014-12-36-01118

3. This man painted a sequel to a Poussin work which shows Hersilia standing between two warring factions. This artist of *The Intervention of the Sabine Women* showed an old man holding up three swords as his armored sons reach out to grab them in another work. In another of his paintings, a radical journalist slumps over the edge of a tub after being stabbed by Charlotte Corday. For 10 points, name this Neoclassical painter of *The Oath of the Horatii* and *The Death of Marat*.

ANSWER: Jacques-Louis **David**

080-12-36-01119

4. One leader of this country started the Twenty-Sixth of July Movement after unsuccessfully attacking the Moncada Barracks. It was led from 1952 to 1959 by Fulgencio Batista (ful-HEN-see-oh). During the Kennedy administration, this country was the site of the failed Bay of Pigs invasion. It has been embargoed by the United States since 1960, and was the site of a "Missile Crisis" in 1962. For 10 points, name this country where Raúl (rah-OOL) recently took over from his brother, Fidel Castro.

ANSWER: Republic of **Cuba** [or Republica de **Cuba**]

015-12-36-01120

5. This entity causes charge separation in the Hall effect. This entity is proportional at a point  $p$  to the integral of the cross product of an infinitesimal length of wire with the unit displacement vector from  $p$  to the wire over the square of the length of that displacement vector, per the law of Biot and Savart. A particle experiences a force due to this entity proportional to the product of its magnitude with its speed, and perpendicular to its velocity. For 10 points, name this entity, which is contrasted with an electric field.

ANSWER: **magnetic field** [or **B field**]

022-12-36-01121

6. One poem by this man concludes "I think my love as rare as any she belied with false compare" and begins "My mistress' eyes are nothing like the sun." "So long as men can breathe or eyes can see" is the penultimate line of his poem which states "thou art more lovely and more temperate" after asking "Shall I compare thee to a summer's day?" For 10 points, those poems are sonnets written by what English playwright known as "The Bard?"

ANSWER: William **Shakespeare**

048-12-36-01122

7. This man once claimed that his price would be going up like the price of gasoline. He once high-fived a fan after making a running catch in Camden Yards. He also once went inside the Green Monster during a game for a bathroom break. He was suspended in 2009 after he tested positive for a woman's fertility drug and abruptly retired in 2011 after again testing positive for steroids. For 10 points, name this eccentric outfielder who has played for the Rays, Dodgers, Red Sox and Indians.

ANSWER: Manuel "Manny" Aristides **Ramirez** Onelcida

064-12-36-01123

8. The Erdos-Gyarfas conjecture states that a cycle of length equal to one of these numbers exists for all graphs with minimum degree 3. The number of vertices of an n-dimensional hypercube is equal to the nth of these numbers, and a Mersenne prime is characteristically one less than these numbers. The sum of a row of Pascal's triangle is equal to one of these, and in binary the nth of these numbers is simply a 1 followed by n zeros. For 10 points, name these numbers, the first few of which are 1, 2, 4, 8, 16, 32...

ANSWER: **Powers of 2** or **2 to the nth** power (Accept equivalents)

048-12-36-01124

9. In one poem, this author told of a wind that comes from a cloud, "killing and chilling" the title woman. This author wrote a story in which an item that Minister D-- steals is uncovered in plain sight. This creator of detective C. August Dupin (doo-PAN) told of a narrator who is driven to confess to murder by a pulsating from beneath the floorboards. For 10 points, name this American author of "Annabel Lee," "The Purloined Letter," and "The Tell-Tale Heart."

ANSWER: Edgar Allan **Poe**

026-12-36-01125

10. A type of laser based on this compound is used in scalpels and produces an infrared beam of principal wavelength 9.4 micrometers. The concentration of this compound in the atmosphere is given by the Keeling curve. Carbonic anhydrase combines it and water to form carbonic acid in the bloodstream, and this molecule is the most important greenhouse gas. Dry ice is its solid form. For 10 points, name this molecule which humans exchange with oxygen via respiration.

ANSWER: **carbon dioxide** [or **CO<sub>2</sub>**]

020-12-36-01126

11. This man won a Nobel Prize for Literature partially for his *History of the English-Speaking Peoples*. In one speech, he declared, "I have nothing to offer but blood, toil, tears, and sweat." He was replaced by Anthony Eden after a surprise electoral loss. This man opposed the appeasement policies of predecessor Neville Chamberlain, and, as Prime Minister, attended conferences at Casablanca, Yalta, and Potsdam. For 10 points, name this World War II Prime Minister of the UK.

ANSWER: Winston Leonard Spencer **Churchill**

015-12-36-01127

12. It's not ablative, but Greek employs this case for an absolute construction. In German, the articles used for masculine nouns in this case are *des* and *eines* ("EYE-ness") and German adjectives end in "en" in this case. Latin uses a "partitive" type of this case for the whole to a nominative part. This case forms the second principal part of Latin nouns. For 10 points, name this noun case used primarily to indicate possession.

ANSWER: **genitive** case

105-12-36-01128

13. Fatal familial insomnia and Creutzfeldt-Jakob [KROITS-felt YA-kob] disease both cause a breakdown of tissue in this organ. The blood supply to this organ forms the Circle of Willis at its base, and astrocytes and oligodendrocytes [oh-lig-oh-DEN-dro-sites] are found here. A type of cell in this organ contains long projections with spaces in a fatty sheath called Nodes of Ranvier. This organ has frontal, parietal, occipital, and temporal lobes. For 10 points, name this organ found in the skull.

ANSWER: **brain**

027-12-36-01129

14. After one blind character in this work falls over after running into his guide, two more characters fall over in succession trying to help him up. Earlier, that character claims he is going to a fair to sell another character who thinks aloud once his hat is placed on his head. In addition to Pozzo and Lucky, this play features two characters nicknamed Didi and Gogo called Vladimir and Estragon. For 10 points, name this play in which the title character never shows up, a work of Samuel Beckett.

ANSWER: **Waiting for Godot** [or **En Attendant Godot**]

014-12-36-01130

15. One commander at this battle sent a letter addressed to "All Americans in the World" that pledged "Victory or Death!" This battle was the site of a line in the sand drawn by Colonel William Travis. One man who died here was Jim Bowie ("buoy"), the inventor of a famous knife. It was avenged at San Jacinto, where the victorious soldiers cried out to remember this battle. For 10 points, Santa Anna killed Davy Crocket and the other defenders of what San Antonio mission in 1836?

ANSWER: Battle of the **Alamo**

015-12-36-01131



1. This novel includes a revolutionary group called the "Friends of the ABC" and a bishop named Myriel, who has some silver candlesticks stolen from him. Its protagonist, who disguises himself as Monsieur Madeleine and becomes the mayor of a town, adopts Cosette from the greedy Thenardiers (ten-ARD-ee-ays). That protagonist is pursued by Javert (zhah-VAIR) after stealing a loaf of bread and escaping prison. For 10 points, name this novel about Jean Valjean by Victor Hugo.

ANSWER: *Les Miserables* (LAY mee-zair-AHB)

015-12-36-01132

2. Lupus psychosis sufferers often have antibodies to this organelle. In neurons, this organelle is clustered in Nissl bodies, and they are moved by binding of the signal recognition particle. They recognize the Shine-Dalgarno sequence, and they contain A, P, and E sites. In eukaryotes, these organelles contain 40S and 60S. They read mRNA from 5 prime to 3 prime For 10 points, name these protein synthesis organelles.

ANSWER: Ribosomes

048-12-36-01133

3. This man's illegitimate son, William, was the last Loyalist governor of New Jersey. This man drew an eight segmented snake over the caption "join or die" in a cartoon in the *Pennsylvania Gazette* to support his Albany Plan of Union. He used the name "Richard Saunders" to publish sayings like "a penny saved is two earned" in *Poor Richard's Almanack*. For 10 points, name this early American statesman and inventor whose portrait is on the one hundred dollar bill.

ANSWER: Benjamin Franklin

005-12-36-01134

4. This law is the underpinning of a process in which the lattice energy of an ionic compound is calculated by forming it from its constituent ions, known as the Born-Haber cycle. This law is a consequence of the fact that enthalpy is a state function, and is thus independent of the path of the reaction. For 10 points, name this law which states the enthalpy change for a reaction is equal to the sum of the enthalpy changes for each step.

ANSWER: Hess's Law

020-12-36-01135

5. The protagonist of this work dreams about his father leading him away from a group of drunkards beating a horse to death. The raising of Lazarus is read to the protagonist by the daughter of Katerina Ivanovna. Svidrigailov kills himself after attempting to seduce the protagonist's sister Dunya. In the end, Sonya goes to Siberia with the protagonist, who confesses his murder of a pawnbroker. For 10 points, name this novel about Raskolnikov written by Fyodor Dostoevsky (DAHS-toy-EV-skee).

ANSWER: *Crime and Punishment* [or *Prestupleniye i Nakazaniye*]

048-12-36-01136