1. A park in this city is known for being the first county park in the nation and for its cherry blossoms. Much of city's subway line runs along that park, Branch Brook Park. This city's Ironbound neighborhood is known for its Portugese population, and the arrest of cabdriver John W. Smith led to a 1967 race riot here. Neighboring (*) Elizabeth is also home to part of this city's namesake airport, which had "Liberty" appended to its name after $9 / 11$. For 10 points, name this city eight miles west of New York, the largest in New Jersey.
ANSWER: Newark, New Jersey
2. In an inspiring speech, the title character of this film asserts, "The day may come when the courage of men fails...but it is not this day." Another character in this film cannot be slain by man, but is slain by a woman, Eowyn, instead. In this film, the Army of the Dead arrives in time to lift the siege of (*) Minas Tirith. Afterwards, Aragorn leads his army to the Black Gate while Frodo, Sam, and Gollum destroy the ring in Mount Doom. For 10 points, name this third and final film in the Lord of the Rings series.
ANSWER: The Lord of the Rings: The Return of the King [do not accept or prompt on "Lord of the Rings"]

080-11-29-01103
3. After lying to another deity with a flower, he was cursed to no longer be worshipped on earth. This god's city is found within the heavens situated atop Mount Meru. After assuming the form of a swan, this figure was attacked after lying about reaching one end of the lingam. This led to him losing one of his five heads, with which he saw in every direction. Using his own substance, he created his consort, Sarasvati. In his four $\left(^{*}\right)$ arms, he carries a water jug, a scepter, a bow or spoon, and the Vedas. For 10 points, name this creator god of the Hindu trimurti.
ANSWER: Brahma
092-11-29-01104
4. Sejanus His Fall is one of two surviving tragedies by this author. John Littlewit and his wife Win-the-Fight Littlewit attend the title event of one of this author's plays. In another play, Mosca is the servant of the deceitful title character. The line 'Drink to me only with thine eyes" is found in his poem "To Celia." This author of Bartholomew Fair wrote a play in which (*) Face and Subtle con people out of their money. For 10 points, name this British author of the plays Volpone and The Alchemist. ANSWER: Ben Jonson

001-11-29-01105
5. This empire fought in one battle successfully at the Battle of Isandlwana, but failed during the same war to take the vastly outnumbered garrison at Rorke's Drift. That war ended with the removal from power of this people's leader Cetshwayo. The first leader of this empire created a formation that was known as the (*) "buffalo horns" and started a series of wars and forced movements called the Mfecane. For 10 points, name this African kingdom that was first organized by its leader Shaka. ANSWER: Zulu Empire
6. Extensions of this conflict included the Castilian Civil War and the War of the Two Peters. One side in this conflict lost most of their fleet after tying their ships together at the Battle of Sluys. Other English victories included the Battle of Poitiers and the Battle of Crécy, which was won largely due to the (*) English longbowmen, which were also instrumental in a battle fought on St. Crispin's Day in 1415. For 10 points, name this conflict that included the Battle of Agincourt and lasted from 1337 to 1453. ANSWER: Hundred Years' War
7. The ping pong mechanism is one method sometimes used to describe these molecules. RNA can act as one of these molecules when it assumes the hammerhead configuration. They can be described using a Lineweaver-Burke (LINE-'weaver" BURK) plot, which depicts Michaelis-Menten (mih-KAY-liss MEN-ten) kinetics. They often possess complimentary geometric shapes according to the $\left(^{*}\right.$ ) lock and key model. These molecules act upon a substrate which binds to a certain active site. For 10 points, name these proteins that catalyze biological reactions.
ANSWER: enzymes
064-11-29-01108
8. This czar gave Mikhail Muravyov considerable power in Poland, leading him to be known as 'the Hangman" for his harsh sense of justice during the January Uprising.He established a more sophisticated system of local governments with his implementation of the zemstvo system, but his reforms were $\left(^{*}\right)$ cut short by his death at the hands of the People's Will. Succeeding Nicholas I at the close of the Crimean War, for 10 points, name this Russian czar best known for emancipating the serfs. ANSWER: Alexander II of Russia [or Alexander Nikolayevich; prompt on Alexander]
9. This sculptor took inspiration from a Antonio del Pollaiulo etching for a relief of nudes fighting against Lapiths, his Battle of the Centaurs. He depicted one kind of person "bearded," "awakening," "rebellious," and "dying" in his sculptures of slaves for the tomb of (*) Pope Julius II, which also was the planned destination for his horned Moses. In another of his sculptures, Mary holds the dead body of Jesus. For 10 points, name this sculptor of the Pieta who showed a nude holding a sling to his shoulder in his marble David.
ANSWER: Michelangelo [or Michelangelo di Lodovico Buonarroti Simoni]
10. Popular meeting spots in this city included the Dingo Bar and Sylvia Beach's book store. In a novel set in this city, a law student befriends a man who impoverishes himself in giving his daughters a better life. In another novel, a fanatical police inspector drowns himself in this city that serves as the setting of Father Goriot. That inspector, (*) Javert, is saved by the bread-stealer Jean Valjean. For 10 points, name this setting of Victor Hugo's novel Les Miserables.
ANSWER: Paris
11. A more advanced form of this quantity is symbolized $J$ and is called the density of this. In one case that density is equal to the permittivity of free space times the time derivative of the electric field. That case was introduced by Maxwell and is called the displacement of this quantity. One law states that its sum about at a junction is zero. It is measured by an (*) ammeter (AM-ee-ter) and is equal to voltage divided by resistance according to Ohm's Law. This quantity is measured in amperes. For 10 points, name this rate of charge, which can be viewed as direct or alternating.
ANSWER: current [or current density]
12. One country during this conflict was first invaded by three units of British paratroopers, after which the U.S. VII Corps was able to make easy headway. An early battle in this war centered on the port city of Khafji. In its aftermath, the northern and southern portions of one country were declared to be "no-fly zones." This war involved the (*) "Highway of Death," in which a colonnade of troops was heavily bombarded during a retreat. For 10 points, name this war involving the Republican Guard of Saddam Hussein during the early 1990's.
ANSWER: First Persian Gulf War [prompt on First Iraqi War; prompt on Operation Desert Storm]
040-11-29-01113
13. One exact solution to a set of equations created by this scientist predicts that rotating bodies would undergo frame dragging. The Kerr and Schwarzchild metrics solve that set of equations without taking into account the cosmological constant, which this scientist believed was his greatest mistake. In Annalen der Physik, this creator of the field equations wrote four Annus Mirabilis papers, two of which were about Brownian motion and the (*) photoelectric effect. The mass defect can be calculated from his single best known contribution to science, which posits an equivalence between two of its parameters. For 10 points, name this scientist who stated that $\mathrm{E}=\mathrm{mc}$ squared.
ANSWER: Albert Einstein
020-11-29-01114
14. This woman wrote a story in which a shoe salesman named R. J. Bowman lives out his last hours in the house of a country family he doesn't know. This author of "Death of a Traveling Salesman" described Phoenix Jackson's trip for medicine in "A Worn Path." In one of her novels, Laurel Hand cares for her (*) dying father, Judge McKelva. For 10 points, name this author of the novel The Optimist's Daughter and the story "Why I Live at the P.O."
ANSWER: Eudora Welty
079-11-29-01115
15. In this language, the sound corresponding to " $h$ " is rendered by a breath mark above the first vowel. This language uses acute, grave, and circumflex accents above vowels to denote different musical tones. Its word for sea can be rendered as either thalatta or thalassa. This language's Koine [COY-nay] dialect is used for its version of the New Testament. This language's primary dialects include $\left({ }^{*}\right)$ Attic and Homeric. For 10 points, name this language, whose alphabet contains the letters alpha and beta.
ANSWER: Ancient Greek [or Hellenike]
080-11-29-01116
16. One play by this author features a maid named Sabina and takes place partially in New Jersey and partially during the Ice Age. He also wrote a novel about several characters affected by the collapse of a bridge in Peru. This author of The Skin of Our Teeth also wrote a play about (*) Emily Webb, George Gibbs, and other residents of Grover's Corners. For 10 points, name this author of The Bridge of San Luis Rey and Our Town.
ANSWER: Thornton Niven Wilder
17. This artist painted a woman lying on sumptuous white bed sheets below a golden cherub in his Danae, which was modeled on his wife Saskia. He painted the Hebrew letters "Mene, Mene, Tekel u-Pharsin" in his depiction of Belshazzar's Feast. He painted some inquisitive gentlemen examining a skinless arm in his painting The (*) Anatomy Lesson of Dr. Tulp. Another of his paintings includes a girl holding a chicken and a group of men with spears and drums. For 10 points, name this Dutch artist who painted "The Shooting Company of Frans Banning Cocq" in Night Watch.
ANSWER: Rembrandt Harmenszoon van Rijn
18. In the late 1800's, this scientist claimed that the geometric rise of carbon dioxide in the atmosphere was directly proportional to a linear rise of the Earth's temperature. This man developed an equation that can be extended to transition state theory with the Eyring-Polanyi (EYE-RING POLE-ahn-YEE) equation. That equation based on collision theory contains a term called the pre-exponential factor and relates the rate constant to the (*) activation energy and temperature in chemical kinetics. For 10 points, name this Swedish chemist who names an acid-base theory in which an acid is an electron acceptor.
ANSWER: Svante Arrhenius
19. While serving as music tutor to the Esterhazy daughters, this man composed a C major sonata for piano four-hands which is known as his "Grand Duo." This man was unable to play his own "Wanderer Fantasy," and he substituted a double bass for one of the violins of the typical lineup for his Piano Quintet in A major. This composer's incidental music to Rosamunde has been suggested as $\mathbf{a}\left({ }^{*}\right)$ conclusion to his eighth symphony. For 10 points, name this Romantic German composer of the "Trout Quintet" and the "Unfinished Symphony."
ANSWER: Franz Schubert
015-11-29-01120
20. When Finn Maccool met his wife, Sadhbh (SAHV), she was in the form of this animal. Four of these animals attack the World-Tree Yggdrasil (EEG-drah-seel) in Norse myth. In Greek myth, Heracles pursues one of these animals for a year as one of his labors. That Ceryneian (keh-rih-NAY-uhn) one of these animals belonged to $\left(^{*}\right.$ ) Artemis, whose chariot is pulled by these animals, and who turns Actaeon (ack-TAY-on) into one of them. For 10 points, name this horned animal, which is hunted by hounds.
ANSWER: deer [or harts; or stag]
21. In this work, Katerina Ivanovna (EE-vah-NAHV-na) throws a banquet for her husband, who stumbles into a police station after drunkenly running in front of a carriage and dies in the arms of his daughter Sonia. A side plot in this work concerns the pedophile Svidrigaylov (svid-rah-GUY-lov), who, like Pyotr Luzhin, courts the main character's sister Dounia (DOON-yuh). However, Dounia ends up with (*) Razumikhin (rah-zoo-MIK-in) at the end of the novel. For 10 points, name this Fyodor Dostoevsky novel about Raskolnikov's murder of an old moneylender.
ANSWER: Crime and Punishment [or Prestuplenye i Nakazanye]
22. He argued that restitutive laws characterize a society exhibiting organic solidarity, as opposed to repressive laws matching to mechanical solidarity. He outlined a way to study social facts in one work. In another, he outlined how people suffering from $\left({ }^{*}\right)$ anomie can perform an action of self harm for different reasons than someone whose reasons are fatalistic, egoistic, or altruistic. For 10 points, name this French sociologist who wrote The Rules of the Sociological Method, Suicide, and The Division of Labor in Society.
ANSWER: Émile Durkheim
027-11-29-01123
23. In C\# (c sharp), delegates act as references to these things. Their contents are duplicated for increased performance at the cost of size when they are inlined. Closures are examples of these that can be treated like objects. Virtual ones can be overridden in object oriented programming. These have a (*) return type which can be void. For 10 points, name these sections of code that are called to accomplish a task, such as System dot out dot println in Java.
ANSWER: function [or method; or procedure; or subroutine]

1. One theory of these materials is named for Ginzburg and Landau. For 10 points each:
[10] Name these materials which, below a certain temperature, have an electrical resistance of zero.
ANSWER: superconductors
[10] This effect consists of the expulsion of the magnetic field by superconductors when they enter a superconducting state.
ANSWER: Meissner effect
[10] Superconductors are characterized by a penetration depth named after two brothers of this name, one of whom gives his name to a type of dispersion forces.
ANSWER: London
024-11-29-01201
2. He laid out four "idols of the mind" that hinder our understanding. For 10 points each:
[10] Name this English philosopher who created a utopian island called Bensalem in his novel The New Atlantis.
ANSWER: Erancis Bacon [prompt "Bacon"]
[10] Francis Bacon's Novum Organum advances this five-step method that begins with hypothesis. Thomas Kuhn wrote that the structure of this kind of revolution relies on "paradigm shifts," not a defined method. ANSWER: scientific method [10] In The Logic of Scientific Discovery, this thinker argues that the scientific method should be based on "falsification," since theories can always be falsified but never proven.
ANSWER: Karl Popper

079-11-29-01202
3. This man's gift from Aeolus was squandered when his companions opened the bag of winds, and he gave his name to the Cyclops Polyphemus as "Noman." For 10 points each:
[10] Name this Greek hero who lends his name to an epic poem by Homer that describes his return from the Trojan War.
ANSWER: Odysseus
[10] This son of Odysseus does not meet his father until the latter's return from the Trojan War, but then teams up with his dad to slaughter the suitors of his mother and Odysseus's wife, Penelope.
ANSWER: Telemachus
[10] This 20th-century Greek author of Zorba the Greek also wrote "A Modern Sequel" to the Odyssey in which Odysseus ends up dying in Antarctica.
ANSWER: Nikos Kazantzakis
4. This equation has namesake parameters denoted $a$ and $b$, which express deviations from another equation of state. For 10 points each:
[10] Name this equation named after a Dutch scientist.
ANSWER: van der Waals equation
[10] The van der Waals equation is a deviation from this other equation, which states that $\mathrm{P} V$ equals $\mathrm{n} R \mathrm{~T}$. ANSWER: ideal gas law [or ideal gas equation]
[10] The ideal gas constant, $R$, is equal to Avogadro's number times this other constant, which relates entropy to the log of the number of system microstates.
ANSWER: Boltzmann's constant [prompt on $\underline{\mathbf{k}}_{\mathrm{B}}$ ]
5. Positive examples of these phenomena include pollination by a beekeeper's bees of a farmer's nearby crops, while the most famous negative example may be pollution. For 10 points each:
[10] Identify these economic phenomena, defined as a cost or gain to a third party in a transaction, that is not accounted for by market prices.
ANSWER: externalities [or externality]
[10] One way to correct for negative externalities is to levy this type of fee. This tax on a negative externality seeks to internalize the cost of the externality, though such an outcome may not be efficient.
ANSWER: Pigouvian tax [prompt on tax]
[10] This theorem states that even in the case of existence of externalities, bargaining between parties will lead to an efficient outcome no matter how property rights are first distributed. It won its formulator the 1991 Nobel Prize in Economics.
ANSWER: Coase's theorem [or Coase theorem]
081-11-29-01205
6. Whipple proposed a dirty snowball model of these objects which can have a tail. For 10 points each: [10] Name these things that orbit the sun. Notable examples include Hale-Bopp and Wild-2.
ANSWER: comets
[10] This comet has a period of about 76 years. Its last approach was in 1986, during which time it was visited by the Giotto mission.
ANSWER: Halley's Comet
[10] This comet broke up and collided with Jupiter in 1994. It left notable disturbances in the atmosphere for months.
ANSWER: Comet Shoemaker-Levy 9 [or D/1993 F2]
001-11-29-01206
7. These people conquered much of England in an 865 expedition led by the three sons of Ragnar Hairy-Pants. For 10 points each:
[10] Name this longboat-using group of Northmen who launched constant assaults on Britain and France during the Middle Ages.
ANSWER: Vikings
[10] Viking mercenaries made up this elite unit of soldiers which protected Basil II and subsequent Byzantine emperors.
ANSWER: Varangian Guard
[10] The Varangian Guard's influence on Eastern politics enabled the Vikings to found the state of Rus, ancestor of modern Russia, at this present-day city. During World War II it was the site of the Babi Yar massacre.
ANSWER: Kiev
8. After being defied by a group of characters who embark on a fishing trip, this woman coerces them all to share their dirtiest secrets during Group Meetings. For 10 points each:
[10] Identify this antagonist of One Flew Over the Cuckoo's Nest, a devious and sadistic nurse.
ANSWER: Nurse Ratched
[10] One Flew Over the Cuckoo's Nest was written by this American author, a member of the Merry Pranksters who wrote about loggers in Oregon in Sometimes a Great Notion.
ANSWER: Kenneth Elton Kesey
[10] The heavy drug use of Kesey and his contemporaries was chronicled in Hell's Angels, a novel by this author, who wrote an autobiographical novel about Raoul Duke and Dr. Gonzo titled Fear and Loathing in Las Vegas.
ANSWER: Hunter Stockton Thompson
020-11-29-01208
9. This author's correspondence with Arthur Murray was collected in Trading Twelves. For 10 points each: [10] Name this writer of the essay collection Shadow and Act, whose incomplete second novel has been variously published as Juneteenth and Three Days Before the Shooting.
ANSWER: Ralph Waldo Ellison
[10] The title character lives among hundreds of lightbulbs and is frequently mistaken for Rinehart in this Ellison novel about an anonymous black intellectual who joins The Brotherhood .
ANSWER: Invisible Man [do not accept "The Invisible Man"]
[10] Ellison, Richard Wright, and this author are contrasted in Irving Howe's essay "Black Boys and Native Sons." This author of such fiction as Go Tell It on the Mountain and Giovanni's Room wrote much criticism himself, such as his political volume The Fire Next Time.
ANSWER: James Arthur Baldwin
019-11-29-01209
10. Act III of this play is titled Don Juan in Hell. For 10 points each:
[10] Name this play based on the Nietzschean concept of the Ubermensch which features the author of the The Revolutionist's Handbook named Jack Tanner.
ANSWER: Man and Superman
[10] Man and Superman was a work by this Irish playwright and author of Pygmalion.
ANSWER: George Bernard Shaw
[10] This other Shaw focuses on a Salvation Army worker named Undershaft who becomes disillusioned when she discovers that the organization is accepting money from weapon manufacturers.
ANSWER: Major Barbara
064-11-29-01210
11. Name these characters played by Warwick Davis, for 10 points each.
[10] Davis played the title character of this 1988 fantasy film, where he allies with Val Kilmer's Madmartigan to protect a baby from the evil queen Bavmorda.
ANSWER: Willow
[10] Davis appears in the Harry Potter films as this Charms Master and Head of Ravenclaw House.
ANSWER: Filius Flitwick [or Filius Flitwick]
[10] Davis has voiced three different characters in two different adaptations of this C.S. Lewis series, which includes The Lion, the Witch, and the Wardrobe.
ANSWER: the Chronicles of Narnia
12. This monument is located in the Black Hills of South Dakota. For 10 points each:
[10] Name this large sculpture of the heads of four presidents carved into granite.
ANSWER: Mount Rushmore
[10] Mount Rushmore was sculpted by this man and his son. He also created The Aviator at the University of Virginia.
ANSWER: Gutzon de la Mothe Borglum
[10] Borglum also created a monument in Georgia at this site that depicts three Confederate leaders carved into a geological feature.
ANSWER: Stone Mountain
13. This set of works had evocative sonnets written for each of its pieces by its composer. For 10 points each:
[10] Name these pieces that open a set of twelve concertos known as The Contest between Harmony and Invention, one part of which uses pizzicato strings to depict cold rain hitting a window.
ANSWER: The Four Seasons
[10] This Italian composer of L'estro Armonico and La Stravaganza wrote The Four Seasons.
ANSWER: Antonio Lucio Vivaldi
[10] This piece from The Four Seasons depicts a shepherd whose fears of an oncoming storm are justified in its third movement when the storm breaks.
ANSWER: "Summer" [or "L'estate"]
023-11-29-01213
14. Robert D. Murphy supervised one peaceful transition of power in this country, from Camille Chamoun to Fuad Chehab. For 10 points each:
[10] Identify this Middle Eastern nation that was the site of the Sabra and Shatila massacres perpetrated by the Falange and the more recent Cedar Revolution.
ANSWER: Republic of Lebanon [or al-Jumh?r?yah al-Lubn?n?yah; or République Libanaise]
[10] In 2006, Israel suffered rocket attacks from this right-wing Lebanese organization considered to be a terrorist organization by the United States. It is led by Hassan Nasrallah.
ANSWER: Hezbollah
[10] This business tycoon led Lebanon from 1992 to 1998 and from 2000 to 2004 before being assassinated by a suicide bomber in 2005.
ANSWER: Rafic Baha El Deen Al-Hariri
15. According to the results of the 2010 US Census, this state recorded the greatest increase in population, necessitating four new congressional districts. For 10 points each:
[10] Name this state which is still second in overall population, behind California.
ANSWER: Texas
[10] The highest rate of growth from 2000 to 2010 belongs to this Western state, which saw explosive growth in Clark County suburbs such as Henderson and Paradise.
ANSWER: Nevada
[10] The most populous congressional district in America belongs to this state which is just small enough to miss the second district it lost in 1990. Its cities include Great Falls and Butte.
ANSWER: Montana
16. Twenty-three men were executed in the aftermath of this rebellion. For 10 points each:
[10] Name this 1676 rebellion which was put down by William Berkeley.
ANSWER: Bacon's Rebellion
[10] Bacon's Rebellion took place in this colony, named for Queen Elizabeth I, whose capital was at Jamestown.
ANSWER: Colony of Virginia
[10] This legislative assembly modeled after the British Parliament first convened in 1619 in Jamestown. ANSWER: House of Burgesses

024-11-29-01216
17. The most notable feature of members of this phylum is known as metamerism, and describes a pattern of repeated segmentation. For 10 points each:
[10] Name this phylum of segmented worms such as leeches and earthworms.
ANSWER: Annelida [or annelids]
[10] Most annelids reproduce by cross-fertilization because they have this property of having both male and female sexual organs.
ANSWER: hermaphrodism [accept word forms, such as hermaphrodite]
[10] These chitinous ("KITE"-in-us) hair-like bristles on the outside of annelids are used in locomotion. ANSWER: setae

003-11-29-01217
18. One of the greatest atrocities during this war was Pappenheim and Tilly's sack of Magdeburg. For 10 points each:
[10] Name this series of religious conflicts in the seventeenth century that ravaged much of central Europe. ANSWER: Thirty Years' War
[10] Catholic France gave monetary and military aid to the Protestants under the direction of this statesman, who was known as the "Red Eminence" and served as the chief minister to Louis XIII.
ANSWER: Armand Jean du Plessis de Richelieu [or Cardinal-Duc de Richelieu]
[10] To finance the war effort, Richelieu increased the "gabelle," the tax on this substance.
ANSWER: salt
015-11-29-01218
19. This man painted Charles IV of Spain and His Family. For 10 points each:
[10] Name this artist of Saturn Devouring his Children and a collection known as the Black Paintings. ANSWER: Francisco Jose de Goya
[10] This Goya painting set in the Napoleonic War shows a Christ like figure about to be executed. ANSWER: The Third of May, 1808 [or [or El Tres de Mayo de 1808 en Madrid]
[10] This set of 80 prints by Goya includes The Sleep of Reason Produces Monsters. It should not be confused with his other series, The Disasters of War.
ANSWER: Los Caprichos
20. This man wrote letters to Greek heroes under the guise of their lovers in his Heroides. For 10 points each:
[10] Name this Roman poet, who collected much of Greco-Roman mythology in his Metamorphoses. ANSWER: Publius Ovidius Naso
[10] One part of the Metamorphoses concerns these two lovers, one of whom swims across the Hellespont every night to be with the other. All or nothing, name both.

## ANSWER: Hero and Leander [or Hero and Leandros]

[10] The Metamorphoses also tell of these nine goddesses, who live on Mount Parnassus and provide inspiration for the arts.
ANSWER: Muses [or Musae]
080-11-29-01220
21. This author wrote about the violinist Michael in An Equal Music, and another work of his is a mammoth satire of social mores in post-partition India. For 10 points each:
[10] Name this Indian author who wrote about Lata Mehra in A Suitable Boy.
ANSWER: Vikram Seth
[10] This first novel of Vikram Seth focuses on the lives of some yuppies in San Francisco, and is written entirely in sonnets.
ANSWER: The Golden Gate
[10] The sonnet form Seth used for The Golden Gate was inspired by the exact same verse structure in this Russian author's Eugene Onegin.
ANSWER: Alexander Pushkin

