



1. Primes of the form this number to the n th minus one power are known as Mersenne primes. This is the highest integer that satisfies the equation in Fermat's last theorem. It is the Euler characteristic of all the Platonic solids. Polynomials of this degree have a discriminant of $(*) b^2 - 4ac$. The sum of cosine to this power and sine to this power is equal to one. It is the third Fibonacci number and is the base of the binary number system. For 10 points, name this only even prime.

ANSWER: two

066-12-69-06101

2. One of this artist's music videos opens up with him in the studio learning that his "chick on the side has got one on the way." That song, by this artist, was mashed up by the boys on *Glee* with Bon Jovi's "It's My Life." This singer of "Confessions Part II," claims that there are "so many ways to love you," in a song that features will.i.am. In that song he wants to say $(*)$ "Oh my god." In another song, this man tells the listener to "Dance dance like it's the last last night of your life." For 10 points, name this singer of "OMG" and "DJ Got Us Fallin' In Love."

ANSWER: Usher Terry Raymond IV

149-12-69-06102

3. This male character is distracted by a demon in the form of a deer while hunting, during his time living with the hermit Agastaya. He is eventually punished for doubting his wife's chastity when the Earth opens up and takes her away. Earlier, he had tested his wife with fire. This character marries after breaking King Janak's bow, then, during the regency of Bharat, he is exiled from $(*)$ Ayodha for fourteen years. He allies with Hanuman to raid Sri Lanka and recover his kidnapped wife. For 10 points, identify this protagonist who defeats Ravana and rescues his wife Sita in an Indian epic named for him.

ANSWER: Rama

019-12-69-06103

4. Navassa Island lies west of this island and Mona Passage to its east. This island surrounds three quarters of the smaller Gonave Island. Pico Duarte is the highest point in this island's mountain chain Cordillera Central. The Windward Passage separates this member of the Greater Antilles from $(*)$ Cuba. An earthquake in 2010 heavily damaged this island's city of Port-au-Prince. After leaving the Azores, Christopher Columbus made landfall on this island in his first voyage. For 10 points, name this Caribbean island occupied by Haiti and the Dominican Republic.

ANSWER: Hispaniola

140-12-69-06104

5. This group ended up fighting the internal "Perusine War" with each other. Members of this group signed the Treaty of Brundisium and dispatched Marcus Agrippa to fight pirates. Eventually, Lepidus was expelled from this group, and the remaining members fought each other at $(*)$ Actium. This group's forces won the battle of Philippi, defeating Brutus and Cassius. For 10 points, name this group of Romans that included Mark Antony and Octavian, who banded together to avenge the death of Julius Caesar.

ANSWER: Second Triumvirate [prompt on Triumvirate]

052-12-69-06105

6. **This philosopher used Plato's *Symposium* as the model for "In Vino Veritas," a section of his *Stages on Life's Way*. Another of his works has two halves contrasting the aesthetic and ethical modes of life. This philosopher contrasted the (*) "knight of infinite resignation" with the "knight of faith" in a book written under the pseudonym Johannes de Silentio, which offers four version of the story of the sacrifice of Isaac. For 10 points, name this proto-existentialist Danish philosopher who wrote *Either/Or* and *Fear and Trembling*.**

ANSWER: Soren Kierkegaard

014-12-69-06106

7. **One photograph taken in this city depicts a *Jewish Giant at Home with His Parents*, and another shows an exasperated boy gripping a toy hand grenade. Many early-20th-century photographers exhibited at this city's 291 gallery. Diane Arbus's career depicting marginalized citizens of this city came after (*) Jacob Riis documented its poor in his photo-book *How the Other Half Lives*. Alfred Eisenstaedt captured a sailor kissing a nurse during V-J Day celebrations in this city. For 10 points, name this city where Alfred Stieglitz photographed the Flatiron Building.**

ANSWER: New York City

195-12-69-06107

8. **This device's namesake discovered the property that drives it in an experiment using frog legs. A specific kind of this device is named for John Frederic Daniell. The emf for one of these devices can be calculated using the (*) Nernst equation. This device consists of a salt bridge connecting two half-cells, each of which contains a redox reaction, and its most common electrodes are copper and zinc. For 10 points, name this type of electrochemical cell named for an Italian.**

ANSWER: Galvanic cell [or Voltaic cell; prompt on cell]

014-12-69-06108

9. **This man was appointed as Secretary of State after Abel Upshur was killed in the U.S.S. *Princeton* explosion. As Secretary of War, he created the Bureau of Indian Affairs while serving under James Monroe. This man decisively won the vice presidency in the Election of 1824. In response to the (*) Tariffs of 1828 and 1832, he formed a political party known as the "Nullifiers." For 10 points, name this South Carolina politician who was a fervent advocate of states' rights.**

ANSWER: John Caldwell Calhoun

145-12-69-06109

10. **This novel's protagonist helps Mrs. Parsons clean a sink while her two children attack him. Mr. Charrington's attic and the Chestnut Tree Café are locales in this novel, which includes a large excerpt from a treatise about "Oligarchical Collectivism" by Emmanuel (*) Goldstein. In this novel, O'Brien uses a rat to torture the protagonist in Room 101, a chamber to which Julia's lover Winston Smith is delivered by the Thought Police. For 10 points, name this dystopian novel featuring Big Brother written by George Orwell.**

ANSWER: Nineteen Eighty-Four

104-12-69-06110

11. **Drag force is proportional to both the radius of an object and this quantity by Stokes' Law. Centripetal acceleration equals this quantity squared, divided by the radius of the circle. It can also be found from the first time derivative of (*) position. When the force of gravity is balanced out by drag, a falling object reaches its "terminal" form of this quantity. For 10 points, name this quantity equal to momentum divided by mass, measured in meters per second, that has both magnitude and direction.**

ANSWER: velocity [prompt on speed before "direction" is read]

190-12-69-06111

12. One work by this man begins with the line, “I am a sick man. I am a spiteful man.” An offer of money is rejected by Liza in that work. One character created by this man pays for the funeral of a man who is run over by a carriage. This author of *Notes from (*) Underground* created Marmeladov, who is the father of Sonya. In a work by this man, the protagonist uses an axe to kill the pawnbroker Alyona along with her half-sister Lizaveta. 10 points, name this Russian author who created Raskolnikov in *Crime and Punishment*.

ANSWER: Fyodor Dostoevsky [or Fyodor Mikhailovich Dostoevsky]

149-12-69-06112

13. When this language’s grammar was created, an introduction to it noted “language was always the companion of empire.” A dying variant of this language is spoken by Sephardic Jews, and is known as Ladino. It has several “digraph” letters such as (*) “ch” and “ll.” This language uses a second-person familiar plural form known as “vosotros.” Despite its prevalence within the region, it is not the official language of Belize. For 10 points, name this official language of Mexico.

ANSWER: Spanish [or Espanol]

052-12-69-06113

14. This man increased his political power in a coup d'etat called Operation Rubicon. He was elected to president with the help of the Party of Order, but then abandoned that party and former supporters like Adolphe Thiers. Felice Orsini tried to kill this man for preventing Italian unification. New sewers and wide (*) boulevards were built by Baron Haussmann in this man's capital city. He lost power after the Franco-Prussian War. For 10 points, name this French ruler of the Second Empire named for his uncle.

ANSWER: Napoleon III [or Charles Louis Napoleon Bonaparte; do not accept or prompt on "Napoleon"]

121-12-69-06114

15. By using magic and herbs, this god periodically revives the decapitated head of a wise giant to seek counsel. This god owns a ring that creates eight copies of itself every nine nights, a spear that never misses its target, and a horse with eight legs. The ravens Hugin and Munin bring tidings to this god, who will be killed by the (*) Fenris Wolf. This resident of Valhalla gave up one of his eyes to obtain wisdom. For 10 points, name this wise chief of the Aesir (AY-sear) from Norse mythology.

ANSWER: Odin [or the Allfather; or Woden; or Wotan]

080-12-69-06115

16. This composer created a D major piano concerto for the left hand after being commissioned by Paul Wittgenstein, and he dedicated movements of one of his pieces to friends who perished in World War I. This composer of *Le tombeau de Couperin* was commissioned by Serge Koussevitsky to orchestrate (*) Mussorgsky’s *Pictures at an Exhibition*. An ostinato rhythm plays on snare drums throughout another of his orchestral works. For 10 points, name this French composer of *Bolero*.

ANSWER: Maurice Ravel

126-12-69-06116

17. Some proteins responsible for activating this process belong to paired box and winged helix classes, and sigma factors help initiate it. TPB binds to the TATA box in one portion of this process, after which a five (*) prime cap and a three-prime poly-adenosine tail is added. This process is divided into three key steps: initiation, elongation, and termination. For 10 points, identify this process, the synthesis of messenger RNA from a DNA template, which is followed up by translation.

ANSWER: transcription

189-12-69-06117

18. Both the predecessor and successor of Seti I bore this name. The inscriptions at Medinet Habu detail another ruler with this name's battles against a group of mysterious invaders called the Sea Peoples. The best known ruler with this name constructed the temple complex at Abu Simbel and was the husband of (*) Nefertari; that man with this name fought against Muwatalli II at the Battle of Kadesh. For 10 points, give this name of several Egyptian pharaohs, the second of whom was called "the Great."

ANSWER: Ramses [or Ramesses; or Ramses I; or Ramses II; or Ramses the Great; or Ramses III]

040-12-69-06118

19. This person distributes guns in one painter's work "The Arsenal." In one painting, this person wears a hummingbird pendant. Another work replaces this person's spine with a shattered stone column, representing an injury caused by a bus-on-trolley collision. This person is depicted beside a (*) monkey and a cat in a painting showing her thorn necklace. In yet another work, she is connected to herself via heartstrings. Several of her paintings show her prominent unibrow. For 10 points, name this Mexican self-portraitist, the wife of Diego Rivera.

ANSWER: Frida Kahlo de Rivera [or Magdalena Carmen Frieda Kahlo y Calderon; prompt on Rivera until mentioned; accept Frida Rivera if given upon the prompt]

020-12-69-06119

20. This man precedes one work with a list of quotations he claims are from a "sub-sub-librarian." The narrator of a short story by this man theorizes the temperament of the title character came from working in the dead letter office. That protagonist is hired to work in the narrator's law firm with (*) Nippers and Turkey, but responds to every request or command with, "I would prefer not to." For 10 points, name this American author of "Bartleby, the Scrivener" and *Moby-Dick*.

ANSWER: Herman Melville

121-12-69-06120

21. While not a monarch, this man welcomed in statesmen as part of a diplomatic meeting to revise the Treaty of San Stefano. While promoting national unification, this man declared an emphasis on "iron and blood" to achieve goals. As chancellor, this man endorsed education minister Adalbert Falk's "May Laws" as part of his battle with the (*) Catholic Church called the Kulturkampf. For 10 points, name this German politician who was eventually removed from office by Kaiser Wilhelm II and who was known as the "Iron Chancellor."

ANSWER: Otto Eduard Leopold von Bismarck

052-12-69-06121

22. The square of electric charge is divided by the product of h-bar and this quantity in the definition of the fine structure constant. This quantity is equal to the square root of the reciprocal of the product of the permittivity and permeability of free space. The square of this constant is multiplied by (*) mass in an equation developed by Einstein. For 10 points, identify this value symbolized c , equal to about three times ten to the eighth meters per second.

ANSWER: speed of light [accept c before mentioned]

189-12-69-06122

23. This novel's protagonist meets the shade of Alexander the Great, who tells him he died from drinking and not from poison. Earlier, that protagonist visits an academy where a linguist explains his theory that only nouns should be spoken. After briefly visiting Japan, this work's protagonist ends up on an island inhabited by (*) Houyhnhnms (WIN-nims) and Yahoos. In this first part of this novel, the protagonist wakes to find himself tied up and surrounded by six-inch tall people from Lilliput. For 10 points, name this satire by Jonathan Swift.

ANSWER: *Gulliver's Travels*

140-12-69-06123



1. An off-by-one error is a common occurrence when using this data structure due to forgetting that its index starts at zero. For 10 points each:

[10] Identify this data structure whose elements are stored in contiguous memory and which is analogous to a vector or matrix.

ANSWER: **array**

[10] In many languages, arrays are indexed according to the arithmetic named for this data type, whose value refers to an area of memory.

ANSWER: **pointer**

[10] This data structure consists of nodes that contain data and a pointer to the next node. It is superficially similar to an array and its "doubly" type contains a pointer to the previous node, as well.

ANSWER: **linked list** [prompt on **list**]

066-12-69-06201

2. One set of these objects was poisoned with blood after Heracles killed the Hydra, and a leaden one made Daphne run in fear from Apollo. For 10 points each:

[10] Name these objects. Another set of them caused Cupid's targets to fall in love.

ANSWER: **arrows** [accept **bow and arrow**; do not accept or prompt "bow" alone]

[10] This creature's skin was immune to arrows, so Heracles had to strangle it on the first of his Twelve Labors. Heracles later wore its fur.

ANSWER: the **Nemean lion**

[10] After Heracles died, this warrior inherited his bow and arrows. He and his bow were abandoned on the way to Troy for nine years when a snakebite gave him a festering wound.

ANSWER: **Philoctetes**

104-12-69-06202

3. The fourth act of this suite depicts an "Arabian Dance," "Anitra's Dance," and the title character before a statue of Memnon. For 10 points each:

[10] Name this suite of incidental music to a Henrik Ibsen play, which also includes "In the Hall of the Mountain King."

ANSWER: the **"Peer Gynt"** suite

[10] "Peer Gynt" was composed by this Norwegian, who also wrote some *Lyrical Pieces*.

ANSWER: Edvard Hagerup **Grieg**

[10] This section of "Peer Gynt" depicts the sunrise in Morocco, and is often used to accompany images of dawn in film and television.

ANSWER: **"Morning Mood"** [or **"Morgenstemning"**]

019-12-69-06203

4. During one of these conflicts, Henry Stafford, the Duke of Buckingham, supported the Duke of Gloucester's attempt to seize Edward V, one of the Princes of the Tower. For 10 points each:

[10] Name this fifteenth-century series of English wars named for the heraldic symbols of the participating Houses of York and Lancaster.

ANSWER: Wars of the **Roses** [or War of the **Roses**]

[10] Buckingham later backed the rebellion led by this king, the eventual victor of the Battle of Bosworth Field against Richard III, who inaugurated the Tudor dynasty.

ANSWER: **Henry VII** of England [prompt on **Henry**]

[10] Buckingham's father died early at this site during the first battle of the Wars of the Roses. A second battle here was a Lancastrian victory.

ANSWER: **Saint Albans**

020-12-69-06204

5. In this work, the reforming schoolteacher Lakunle reluctantly participates in “The Dance of the Lost Traveller.” For 10 points each,

[10] Name this play, in which Lakunle contends with village strongman Baroka over the right to marry Sidi.

ANSWER: *The **Lion and the Jewel***

[10] This Nobel Prize-winning playwright wrote *The Lion and the Jewel*, as well as *Death and the King's Horseman*.

ANSWER: Wole **Soyinka** [or Akinwande Oluwole **Soyinka**]

[10] Soyinka comes from this African nation, whose other authors include Chimamanda Adichie and Chinua Achebe.

ANSWER: Federal Republic of **Nigeria**

191-12-69-06205

6. A namesake index of this phenomenon relates the speed of light to a term for velocity. For 10 points each:

[10] Identify this change in direction which often takes place for a ray of light passing from one transparent medium to another.

ANSWER: **refraction**

[10] This fundamental law from optics relates the indices of refraction in two media to the angles of incidence and refraction. It is named after a Dutch scientist.

ANSWER: **Snell's** law

[10] The arcsine of the quotient of the two indices of refraction gives this incident angle at which the angle of refraction is ninety degrees.

ANSWER: **critical** angle

189-12-69-06206

7. Answer some questions about the presidency of Ronald Reagan, for 10 points each.

[10] In the 1984 election, Ronald Reagan crushed Walter Mondale. Mondale had previously served as Vice President under this President.

ANSWER: Jimmy **Carter** [or James Earl **Carter**, Jr.]

[10] This scandal during the Reagan administration involved the sale of arms to a certain Middle Eastern country in order to fund Nicaraguan rebels.

ANSWER: **Iran-Contra** Affair

[10] In October of 1983, Reagan ordered the invasion of this West Indies island in order to rescue Americans during a military coup. The operation was codenamed Operation Urgent Fury.

ANSWER: **Grenada**

189-12-69-06207

8. This character encounters three sets of three gates, of brass, iron, and adamantite, guarded by his daughter Sin and his incestuous son Death. For 10 points each:

[10] Name this character who delivers a famous monologue exhorting "courage never to submit or yield."

ANSWER: **Satan** [or **Lucifer**; do not accept "the Devil"]

[10] Satan appears in his angelic form and as a snake in this epic poem, which opens by announcing its subject as "man's first disobedience, and the fruit of that forbidden tree."

ANSWER: **Paradise Lost**

[10] *Paradise Lost* was written by this blind poet of the pastoral elegy "Lycidas."

ANSWER: John **Milton**

019-12-69-06208

9. This process can occur by cladogenesis, and is completed when a viable reproductively isolated population emerges. For 10 points each:

[10] Name this process of evolution, through which new examples of the lowest phylogenetic group are formed.

ANSWER: **speciation**

[10] This most common form of speciation occurs when some segment of a population becomes geographically isolated and experiences different selective pressures.

ANSWER: **allopatric** speciation

[10] This model uses the fossil record as evidence for the claim that speciation occurs in rapid bursts between long periods of stasis.

ANSWER: **punctuated equilibrium**

104-12-69-06209

10. For 10 points each, name some Robert Frost poems.

[10] This poem begins, "Two roads diverged in a yellow wood." Frost ends the poem by ironically stating, "I took the one less traveled by and that has made all the difference."

ANSWER: "The **Road Not Taken**"

[10] This Frost poem describes a man who grasps a stone in each hand "like an old-stone savage armed" and repeatedly says that "good fences make good neighbors."

ANSWER: "**Mending Wall**"

[10] This Frost poem considers two alternate ways the world could end. Frost states he has known enough of desire and hate to know that either would be sufficient.

ANSWER: "**Fire and Ice**"

189-12-69-06210

11. The minerals on Bowen's reaction series range from ultramafic to felsic in composition. For 10 points each:

[10] Bowen's reaction series is arranged in the order that minerals crystallize from this term given to molten rock.

ANSWER: **magma** [or **lava**]

[10] The continuous branch of Bowen's reaction series consists of varieties of the plagioclase form of this common mineral, a 6 on the Mohs scale.

ANSWER: **feldspar**

[10] The discontinuous branch of the series ends with this mineral, which appears in mafic and ultramafic igneous rocks. When this mineral is of gem-quality, it is called peridot.

ANSWER: **olivine**

126-12-69-06211

12. Answer these questions about the national debt, for 10 points each.

[10] The national debt increases when the government spends more money than it takes in, resulting one of these negative budget balances for the year.

ANSWER: a government budget **deficit**

[10] According to this hypothesis, when the government borrows heavily for the sake of deficit spending, it reduces the funds that can be invested in private firms, thus impeding growth.

ANSWER: the **crowding out** hypothesis

[10] Much of the national debt is in these IOU's purchased by investors from the federal government. They can be redeemed after maturity.

ANSWER: **treasury** securities [or **T-bills**; or **treasury** bills; or **treasury** notes; or **treasury** bonds; or **treasuries**; prompt on government **bonds**]

080-12-69-06212

13. Name some composers who contributed to Russian opera, for 10 points each.

[10] This 20th century composer's best known opera is *The Love for Three Oranges*, but may be better known for *Peter and the Wolf* and the ballet *Romeo and Juliet*.

ANSWER: Sergei **Prokofiev**

[10] This composer wrote an opera that sees a false Dmitri rebel against the ascension of Boris Godunov to tsar.

ANSWER: Modest **Mussorgsky**

[10] This composer of the early 19th century was a Russian nationalist who used Russian stories and history in composing *A Life for the Tsar* and *Ruslan and Lyudmila*.

ANSWER: Mikhail **Glinka**

140-12-69-06213

14. Answer some questions about the twilight of the Western Roman Empire, for 10 points each.

[10] These nomadic people were finally defeated at Chalons in 451 CE after sweeping into Europe from the East under Attila.

ANSWER: **Huns**

[10] This eighteenth century Brit argued that barbarian invasions and the influence of Christianity weakened the West in his *History of the Decline and Fall of the Roman Empire*.

ANSWER: Edward **Gibbon**

[10] This Frank's army had to fight a Roman officer named Syagrius even after the empire fell. He converted to Catholicism before founding the Merovingian dynasty in what is now France.

ANSWER: **Clovis I** [prompt on **Clovis**]

104-12-69-06214

15. The Iberian peninsula breaks off of Europe in this author's *The Stone Raft*. For 10 points each:

[10] Name this author who also wrote about an entire city becoming afflicted with the title condition in *Blindness*.

ANSWER: Jose **Saramago**

[10] Jose Saramago is an author from this country, whose national epic was written by Luis de Camoes and is called *The Lusiads*.

ANSWER: **Portugal** [or **Portuguese Republic**; or **Republica Portuguesa**]

[10] Saramago wrote a novel titled "The Gospel According to" this religious figure, whose "Last Temptation" is described in a Nikos Kazantzakis novel.

ANSWER: **Jesus** Christ [or Jesus **Christ**]

192-12-69-06215

16. This movement was inspired by the Canadian publication Adbusters. For 10 points each:

[10] Name this movement, which started in September 2011 when protesters camped out in New York's Zucotti Park.

ANSWER: **Occupy Wall Street** [or **OWS**; prompt on **Occupy**]

[10] An image of Lt. John Pike pepper-spraying an Occupy demonstrator at this college campus went viral in November 2011.

ANSWER: University of California, **Davis** [or UC **Davis**]

[10] The movement is fond of using this annoying tactic, whereby amplification equipment is eschewed as people gathered around a speaker successively repeat what the speaker says.

ANSWER: **human microphone** [or **people's microphone**]

194-12-69-06216

17. In 1926 and 1928, hurricanes devastated the area surrounding this lake, whose flooding is controlled by the Herbert Hoover Dike. For 10 points each:

[10] Name this lake located in southern Florida.

ANSWER: Lake **Okeechobee**

[10] Lake Okeechobee is located near this wetlands region of Florida, which contains a namesake national park where one can travel the Wilderness Waterway.

ANSWER: **Everglades**

[10] Another area of wetlands in the US is this swamp on the Georgia-Florida border. Known as the "Land of Trembling Earth," it is the source of the St. Marys and Suwanee rivers.

ANSWER: **Okefenokee** Swamp

140-12-69-06217

18. This book of the Bible begins with an address to Theophilus, and it describes the stoning of Saint Stephen and the conversion of Saint Paul. For 10 points each:

[10] Name this book of the Bible attributed to Saint Luke, which comes directly after the four gospels. It tells of what Jesus's disciples did after he was taken up into heaven.

ANSWER: the **Acts** of the Apostles [or the Book of **Acts**]

[10] In Acts, Paul mentions that he belongs to this Jewish sect, which credited the validity of the oral law and believed in an afterlife. Because they rejected Hellenism, they clashed with the Sadducees.

ANSWER: the **Pharisees**

[10] In a different part of Acts, this magician attempts to bribe Peter and John for the power of the Holy Spirit. He lends his name to the crime of buying church offices.

ANSWER: **Simon** Magus [or **Simon** the Magician; or **Simon** the Sorcerer]

080-12-69-06218

19. The face of a woman playing a virginal can be seen in a mirror in this man's *The Music Lesson*. For 10 points each:

[10] Name this painter who also depicted a woman in yellow receiving money from a man in red, while sitting next to a blue vase in *The Procureess*?

ANSWER: Johannes **Vermeer**

[10] Johannes Vermeer painted during the Golden Age of this country. Another painter from this country was Franz Hals, who depicted a jovial man in *The Laughing Cavalier*

ANSWER: **Dutch** Republic [or Kingdom of the **Netherlands**]

[10] Vermeer also painted this tronie of a woman clad in a brown shirt and wears a blue and yellow cover on her head. The focal point of this painting is a small white earpiece.

ANSWER: ***Girl with a Pearl Earring*** [or ***Het Meisje met de Parel***]

149-12-69-06219

20. One of these people wrote the popular articles "The Railroads on Trial." For 10 points each:

[10] Name these journalists, such as Lincoln Steffans and Ray Baker, who wrote about unfair practices of corporations and politicians during the Progressive Era.

ANSWER: **muckrakers**

[10] Ida Tarbell interviewed Henry Rogers as part of her *History* about this company. Henry Flagler and John Rockefeller were two partners of this company.

ANSWER: **Standard Oil** Company

[10] A forerunner to muckraking was this photograph collection by Jacob Riis. Bandit's Roost is one picture of a New York alleyway in this book.

ANSWER: **How the Other Half Lives**: *Studies Among the Tenements of New York*

149-12-69-06220

21. In the ABC model, these parts are created by the tandem work of A and B-type genes. For 10 points each:

[10] Name these colorful parts of a flower, which are often used to attract insects for pollination purposes.

ANSWER: **petals**

[10] The collection of all petals of a flower is given this name.

ANSWER: **corolla**

[10] Among angiosperms, this subdivision has flower parts, including petals, in multiples of four or five. This subdivision is given its name due to the number of seed leaves it has.

ANSWER: eu**dicots**

048-12-69-06221