

Fall 2008 ACF-Format Set #2

Round 3

Tossups

- 1. This artist depicted a woman in a white dress looking across a field while blowing a trumpet in *The Dinner Horn*. One of his works shows a brown farmhouse behind a group of boys holding hands and pulling on each other, while in another some large fish rest in a rowboat as the rower looks up at the sky. In addition to *Snap the Whip* and *Fog Warning*, he depicted a waterspout behind a black man resting on a broken ship being circled by sharks. For 10 points, name this painter of *The Gulf Stream*. ANSWER: Winslow <u>Homer</u>
- 2. Billy Martin started his coaching career with this team before being fired for getting involved in a fight between Dave Boswell and Bob Allison. Those players were part of this club's 1965 World Series losing team. Players who got their three thousandth hit with this club are Dave Winfield and Paul Molitor. Under manager Tom Kelly they won the World Series in 1987 and 1991 with players like Kent Hrbek and Kirby Puckett. For 10 points, name this team whose current players include Joe Mauer and Justin Morneau.

ANSWER: Minnesota Twins [accept either]

3. Research by Marie Dacke has indicated that honeybees can count up to this number, and a theorem named for this number was proven by Kenneth Appel and Wolfgang Haken. The number of moons of Jupiter discovered by Galileo is equal to this number, and the chemical element with this atomic number is beryllium. For 10 points, name this number that is shared by the number of phenotypes in the ABO blood system, the number of mammalian heart chambers, and the number of sides on a trapezoid.

ANSWER: four

4. Lord Germaine made sure Guy Carleton did not lead the expedition leading to this battle, and Barry St. Leger's forces were defeated at the battle of Oriskany on the way to this site. John Stark helped command at this battle, where the British were unable to make an opening for Albany at Freeman's Farm. Benedict Arnold led the Americans at Bemis Heights, and the British plan for William Howe to lead in troops from Philadelphia never materialized, leaving John Burgoyne vulnerable. For 10 points, name this New York battle that Horatio Gates won.

ANSWER: Battle of **Saratoga**

5. Obsession over the threat of nuclear war drives a foundry owner to move to Brazil in this director's *I Live in Fear*, and Martin Scorsese stars as Vincent Van Gogh in his *Dreams*. He adapted Maxim Gorky's *The Lower Depths* for the screen, as well as Shakespeare's *King Lear* and *Macbeth*. One of his movies shows a murder from multiple viewpoints, while another features the title warriors defending a village from bandits. For 10 points, name this creator of *Throne of Blood*, *Rashoman*, and *Seven Samurai*, a Japanese director.

ANSWER: Akira Kurosawa [or Kurosawa Akira]

6. She wrote, "Yet am I somewhat greedy when I pray/To some far wood along my sun-pressed way" in the poem "Traveler's Faith." Her second husband published a book on the religion of the island of Manus; she herself collected over 35,000 drawings from the children of Manus, which she used in the book *Growing Up in New Guinea*. A more famous work derived from her stay on Ta'u, during which she studied 68 girls in three villages on that Pacific island. For 10 points, name this anthropologist, the author of *Coming of Age in Samoa*.

ANSWER: Margaret Mead [prompt on Makelita]

7. In the intestines, they are generated in the crypts, and they are affected by beta-catenin. In the blood, they come in myeloid and lymphoid types and are capable of forming colonies. In plants, they are usually found in the apical meristem, and they are grown on a layer of feeder cells in tissue engineering labs. Other prominent sources of them include the bone marrow and the umbilical vein, but those gathered from embryos are the most controversial. For 10 points, name these undifferentiated cells that can divide almost indefinitely.

ANSWER: stem cells [accept stem cells after "cells"]

8. Erwin Iserloh claimed that their manner of promulgation was a story invented by Philip Melanchthon. The Archbishop Albert of Mainz forwarded them to Rome. They note Saint Lawrence's claim that the treasures of the Church were the Church's poor, and the twenty-ninth makes reference to the legend of Saints Severinus and Paschal. Chiefly concerned with the sale of indulgences, they were posted on a church door in Wittenberg on October 31, 1517. For 10 points, name these opinions of Martin Luther that sparked the Protestant Reformation.

ANSWER: the **Ninety-Five Theses**

9. During this war, the Treaty of Worms led Savoyard Sardinia to become involved, and Sweden took advantage of this war to start the War of the Hats. Marshal Saxe defeated Cumberland at Fontenoy during it, and the War of Jenkins's Ear led to its American phase, King George's War. It began with an invasion of Silesia by Frederick II, and it ended with the Treaty of Aix-la-Chapelle. For 10 points, name this war fought over the Pragmatic Sanction of 1713 and Maria Theresa's right to rule the namesake country.

ANSWER: War of the <u>Austrian Succession</u> [prompt on <u>King George</u>'s War before it is read]

10. He presented a six part ricercare and trio sonata as part of his *Musical Offering* based on the King of Prussia's theme. Another late work of his consists of fourteen contrapuncti including a Canon at the Octave. The works of this composer of the *Coffee Cantata* were revived when Felix Mendelssohn conducted his *St. Matthew Passion*, and this composer of *The Art of the Fugue* also wrote twenty-four preludes and fugues in each key in *The Well-Tempered Clavier*. Composer of six concerti for a margrave, for 10 points, name this composer of *The Brandenburg Concertos*.

ANSWER: Johann Sebastian Bach

11. At one point in this book the protagonist's father arrives and takes her and her brother to St. Louis, where they are reunited with their mother. One sympathetic figure is Bertha Flowers, who gives the protagonist books and who later attends George Washington High School. That character becomes the first black female streetcar driver after she moves to San Francisco to escape the racist indignities of living in Stamps, Arkansas. For 10 points, name this autobiographical work by Maya Angelou.

ANSWER: I Know Why the Caged Bird Sings

12. In one poem by this author "the earth raised up her head" with "locks covered with grey despair." In addition to "Earth's Answer," he wrote a poem about "A little black thing among the snow: Crying weep, weep, in notes of woe!" He also wrote of an "invisible worm" that has "found out the bed" of the title plant and in one poem he describes the title animal as "burning bright, in the forests of the night." For 10 points, name this mystic British poet of "The Sick Rose," "The Chimney Sweep," and "The Tyger."

ANSWER: William Blake

13. In one novel, this author writes about the civil servant Arvid Falk, who meets with a group of Bohemians in the title place. A daughter of Indra comes down to earth as Agnes and learns to pity humans in a play by this man, and in another play the Captain's wife makes him look insane so she can take custody of Bertha. This man also wrote a play in which the valet Jean convinces the title character to commit suicide with a razor. For 10 points, name this author of *The Red Room*, *The Dream Play*, and *The Father*, the gloomy Swedish playwright of *Miss Julie*.

ANSWER: Johan August Strindberg

- 14. This city has a "sister city" relationship with the seat of Chippewa County, Minnesota, with which it shares its name. This city's namesake department is bordered by Canelones on the north and San Jose on the northwest. The Rodo Park is located in this city to the north of the Punta Carretas. To the west of this city, the Santa Lucia River empties into an isthmus formed by the Rio de la Plata. For 10 points, identify this South American city whose name means "I see a mountain" and is the capital of Uruguay. ANSWER: **Montevideo**
- 15. The amount of this phenomenon that should occur on an object near the earth can be found by summing the types named after de Sitter and Lense-Thirring. One form of this must be taken into account because of the relativistic time dilation between electrons and the nucleus, and is named for Thomas. The magnetic moments of electrons do this in a magnetic field due to the type named after Larmor. For 10 points, name this process, which also names the "wobble" of the Earth on its rotational axis.

ANSWER: precession

16. This man espoused the "doctrine of external relations," which later grew into his "logical atomism." G.E.L. Owen's article "Eleatic Questions" was heavily inspired by this man's analysis of Parmenides in his *History of Western Philosophy*. His rejection of Moore's concept of the absolute good influenced such works of ethics as *Religion and Science* and *Why I am Not a Christian*, though he may be best known for co-developing a theory of types with Alfred North Whitehead. For 10 points, name this logician and co-author of *Principia Mathematica*.

ANSWER: Bertrand Arthur William Russell

17. In one of this author's novels, the death of Steven Sitole in a car crash forces the publishing agent Toby Hood to flee the title *World of Strangers*. In another novel, the secretary Jessie Stilwell grudgingly takes Anne and Boaz Davis into her home. In addition to *Occasion for Loving*, she wrote a book in which Mehring owns a four hundred acre farm, and another in which Maureen Smales abandons her family in the title servant's village. For 10 points, name this writer of *The Conservationist* and *July's People*, the South African author of *Burger's Daughter*.

ANSWER: Nadine Gordimer

18. One of this author's title characters loses his sanity after his daughter Nina marries a native prince in Borneo. In one of his novels, Charles Gould employs the title Italian to protect the San Tome silver mine in Costaguana. In addition to *Almayer's Folly* and *Nostromo*, this author wrote short stories such as "Youth" and "The Secret Sharer." He also wrote about a sailor haunted by the sinking of the *Patna*, and Marlow's journey up the Congo River to retrieve the mad ivory trader Kurtz. For 10 points, name this British author of *Lord Jim* and *Heart of Darkness*.

ANSWER: Joseph Conrad

19. This god turned Pandareus to stone for stealing a bronze dog and he rewarded Tiresias with an extended lifetime after the seer ruled in this god's favor during a dispute with his wife. Along with Hermes, this god was granted hospitality by Baucis and Philemon, and at his birth, he was cared for by the goat Almathea after being switched for a stone by his mother Rhea to trick his father Chronus. For 10 points, name this god who gave birth to Athena from his head, was the husband of Hera and was the chief god of the Greek pantheon.

ANSWER: Zeus

20. One dynasty centered in this country had its king interviewed by St. Francis of Assisi, who tried to convert him. That dynasty ruled such foreign territories as Hamah, and a ruler based in this country, Turan Shah, captured Louis IX at al-Mansurah. One dynasty from this country was named for a daughter of Muhammed, while another was founded by a Kurdish soldier, and another had its origins in a corps of slave soldiers. The Fatimids, Ayyubids, and Mamluks all ruled from, for 10 points, what state, which under Anwar Sadat later made peace with Israel?

ANSWER: Egypt

21. One coefficient sometimes used in this law is equal to four pi times the imaginary part of the index of refraction divided by the wavelength of the incident light. The molar extinction coefficient is more prevalently used than the aforementioned absorption coefficient. There are actually two forms of this law, one of which holds optical path length constant and the other of which holds molar concentration constant. For 10 points, name this law that states that the absorbance is linearly proportional to concentration, a fundamental law of spectrophotometry.

ANSWER: <u>Beer</u>-Lambert-Bouguer Law [or <u>Beer</u>'s Law; or <u>Lambert</u>'s Law; or <u>Lambert</u>-Beer Law]

22. The namesake of this law wrote the book *Eratosthenes Batavus*, which described a new method of finding the radius of the Earth. This law was independently discovered by Rene Descartes, and can be proven by Fermat's principle of least time. Valid for any kind of wave that is incident on a boundary that is separating two media, it gives the relationship between the sine of the incident angle, and the sine of the refracted angle. For 10 points, name this law of optics named for a Dutchman.

ANSWER: **Snell**'s law of refraction



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Bonuses

1. Mahler's tenth symphony, Beethoven's tenth symphony, and the Universe symphony of Ives all fit this description. For 10 points each:

[10] Name this kind of symphony, which also identifies the eighth in B minor by the composer of the Erlking.

ANSWER: <u>unfinished</u> symphonies [accept obvious equivalents]

[10] This man composed the unfinished eighth symphony mentioned above, along with the songs "Gretchen at the Spinning Wheel" and his "Death and the Maiden."

ANSWER: Franz **Schubert**

[10] Schubert's piano quintet in A major is given this name, because its fourth movement includes variations on the theme of the song that shares this name.

ANSWER: <u>Trout</u> [or Die <u>Forelle</u>]

2. Spears have been used by some legendary characters in mythology. Answer the following about them, for 10 points each.

[10] The jeweled spear Amenonuhoko was shared by Izanami and Izanagi in this peoples' myth system.

ANSWER: <u>Japanese</u> myth system [or <u>Shinto</u> myth system]

[10] The spear Gae Bolg was the weapon of choice of this Irish hero, who was born as Setanta. He defeated the armies of Medb in the Cattle Raid of Cooley and married Emer.

ANSWER: Cúchulainn

[10] This daughter of Metis and Zeus sprung from her father's forehead fully armed with a spear.

Preferring to be an intellectual goddess, however, she never really uses it.

ANSWER: Pallas Athena

3. Most words in this language use a three-consonant root and change form based on vowel morphology. For 10 points each:

[10] Identify this tongue, spoken by a namesake ethnic group in such countries as Egypt, Iraq, and Syria.

ANSWER: Arabic

[10] Like Coptic, Berber, Somali, and the Omotic languages, Arabic is a member of this language family, which is named for two continents and has about 250 million total speakers.

ANSWER: Afro-Asiatic

[10] Maletese, Hebrew, and the Ethiopian tongue Amharic are more closely related to Arabic, and thus occupy this branch of the Afro-Asiatic family named for a Biblical son of Noah.

ANSWER: Semitic

4. The Willamette River Valley is the most densely populated part of this state. For 10 points each:

[10] Name this state, the home of Crater Lake, with capital at Portland.

ANSWER: Oregon

[10] Easily visible from Portland, this mountain of the Cascade Range is the tallest in Oregon.

ANSWER: Mount Hood

[10] This river, which forms part of Oregon's border with Washington, contains the Bonneville and John

Day dams.

ANSWER: Columbia River

5. Although he is ill, he is forced to clean the guardhouse floor. For 10 each:

[10] Name this character who has one day in his life in a gulag documented.

ANSWER: Ivan Denisovich Shukov [any name or combination of names is acceptable]

[10] This Russian author of the exposé *The Gulag Archipelago* wrote *One Day in the Life of Ivan Denisovich*.

ANSWER: Aleksandr Isayevich Solzhenitsyn

[10] This Solzhenitsyn novel about the mathematician Gleb Nerzhin takes its name from Dante's Inferno.

ANSWER: The <u>First Circle</u> [or V <u>kruge pervom</u>]

6. For 10 points each, name these composers of French opera who may be more famous for other accomplishments.

[10] This Italian wrote Les Horaces but is often best known for his apocryphal feud with Mozart.

ANSWER: Antonio Salieri

[10] This man adapted Maurice Maeterlinck's *Pelleas et Melisande* to opera but is better known for orchestral works like *La Mer* and *Prelude to the Afternoon of a Fawn*.

ANSWER: Achille-Claude **Debussy**

[10] This German proponent of "Grand Opera" wrote about the French religious squabbling in *Les Huquenots*.

ANSWER: Giacomo Meyerbeer

7. Hugh Everett III argued that it must have an objective existence. For 10 points each:

[10] Name this frequently used tool in quantum mechanics which maps the possible states of a system. For each new particle, formulation of it requires the addition of another integral.

ANSWER: Wavefunction

[10] One bothersome collapse of wavefunctions in quantum mechanics occurs in this thought experiment, in which the title feline may be alive or dead.

ANSWER: Schroedinger's Cat [accept reasonable equivalents involving Schroedinger]

[10] Every particle can be thought of as a wavefunction according to this interpretation of quantum mechanics, based on the work of Bohr and Heisenberg in a namesake Danish city.

ANSWER: **Copenhagen** interpretation

8. Ali Kushayb, a prominent leader of this organization, was captured in October 2008. For 10 points each:

[10] Identify this group, whose name means "men with arms on horseback" which have been terrorizing the African tribes of Darfur.

ANSWER: **Janjaweed** [accept anything that sounds close]

[10] Darfur is a region in this country, led by Omar Bashir. Its vice president, Osman Taha, was also accused of his involvement in the genocide by the ICC.

ANSWER: Republic of **Sudan**

[10] The violence in Darfur has spilled over into the eastern parts of this neighboring country led by Idriss Deby.

ANSWER: Chad

9. This ruler formed a coalition with Francis II that lost at the Battle of Austerlitz, though they were later more effective when Kutuzov utilized a scorched earth policy. For 10 points each:

[10] Name this tsar of Russia.

ANSWER: <u>Alexander I</u> [prompt on <u>Alexander</u>]

[10] Following the Battle of Friedland, Alexander met with Napoleon in the middle of the Neman River to sign this treaty carving up Prussia and Austria between them.

ANSWER: Treaty of **Tilsit**

[10] The Treaties of Tilsit were made possible by Napoleon's victories over Prussia at Auerstadt and this other battle, fought on the same day less than twenty miles south.

ANSWER: Battle of Jena

10. Name these novels set in the Western United States, for 10 points each.

[10] Gray Beaver sells the title character of this Jack London novel to Beauty Smith, where he is trained to become a vicious fighting dog until being saved by Weedon Scott.

ANSWER: White Fang

[10] The monopolistic railroad chokes wheat farmers in California much like the title animal in this novel by Frank Norris, the first of his trilogy *The Epic of the Wheat*.

ANSWER: The Octopus

[10] In response to the reported death of Kinkaid, Major Tetley leads a posse to lynch three innocent men in this novel by Walter Van Tilburg Clark.

ANSWER: The Ox-Bow Incident

11. Identify these works by Franz Kafka for 10 points each.

[10] This short story shows the transformation of Gregor Samsa into a bug.

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

[10] In this novel, Josef K. wakes up and finds himself accused of an unrevealed crime.

ANSWER: The <u>Trial</u> [or Der <u>Process</u>]

[10] This story details a machine which writes the sentences of the accused before slowly killing them.

ANSWER: "In the Penal Colony" [or "In der Strafkolonie"]

- 12. This poet wrote "Sweet Thames, run softly, till I end my song" in "Prothalamion." For 10 points each:
- [10] Name this Elizabethan poet of Amoretti and The Shepheardes Calendar.

ANSWER: Edmund **Spenser**

[10] Spenser's magnum opus is this allegorical epic poem about the adventures of Arthur, Britomart, and the Redcrosse Knight. Its title character, Gloriana, represents Queen Elizabeth.

ANSWER: The Faerie Queene

[10] Spenser wrote a letter explaining the plot of *The Faerie Queene* to this author of "The Nymph's Reply to the Shepherd," who sent settlers to colonize Roanoke.

ANSWER: Sir Walter Raleigh

- 13. The artist Behrman inspires Johnsy to live by painting part of an ivy vine on a wall in this author's story "The Last Leaf." For 10 points each:
- [10] Name this author who wrote many stories about the con artist Jeff Peters, as well as stories set in New York City such as "The Green Door" and "The Cop and the Anthem."

ANSWER: O. Henry [or William Sydney Porter]

[10] In this O. Henry short story, Jim sells his watch to buy combs for Della's beautiful hair, only to find out that she sold her hair to buy him a fob for his watch.

ANSWER: "The Gift of the Magi"

[10] O. Henry's short story collection *Cabbages and Kings* takes its title from "The Walrus and the Carpenter," a poem by this author of "The Hunting of the Snark" and "Jabberwocky."

ANSWER: Lewis **Carroll** [or Charles **Dodgson**]

14. This man's prayers caused Simon Magus to stop flying, and the resulting fall broke Simon Magus's leg in three places. For 10 points each:

[10] Name this "rock" upon which a certain church was built.

ANSWER: Simon Peter [or Saint Peter; or Cephas]

[10] It is thought that Peter may be a direct source for much of this man's gospel, the only one not to use the Q source.

ANSWER: Saint John Mark [do not prompt on or accept "John"]

[10] At the Last Supper, Jesus told Peter that Peter would deny him three times before this event happened. Despite his protests, he wept after this event happened, having denied Jesus thrice.

ANSWER: the cock crows a second time [or the cock crows twice, or rooster for "cock"]

15. It implies that for any points on a streamline, the mass flow rate of an incompressible fluid should be constant. For 10 points each:

[10] Identify this equation which relates the velocity of flow to the pressure of the flow and is named for a Swiss mathematician.

ANSWER: **Bernoulli**'s equation

[10] This principle named for a French polymath establishes a relationship between pressure change and the difference of elevation between any two points in a fluid column.

ANSWER: <u>Pascal's</u> law [or <u>Pascal's</u> principle]

[10] This is the name given the effect where a sudden constriction in the flow of a fluid decreases the pressure of the fluid. It is named for an Italian physicist.

ANSWER: **Venturi** effect

- 16. His father was Edward the Black Prince, and according to Thomas Walsingham he actively chose to marry Anne of Bohemia. For 10 points each:
- [10] Name this king, under whose rule the Lords Appellant led the "Merciless Parliament." He exiled his successor over fear that he would defeat Thomas Mowbray in a duel.

ANSWER: **Richard II**, king of England

[10] Robert de Vere, Ralph Stafford, and James Berners made an attempt on this duke of Lancaster's life. He made a claim for the kingship of Spain, and allied with John Wycliffe.

ANSWER: John of Gaunt, Duke of Aquitaine, Earl of Richmond, Duke of Aquitaine,

[10] This son of John of Gaunt was the successor to Richard II. During his rule, Owen Glendower and Sir Henry Percy led a revolt in Wales.

ANSWER: Henry IV, king of England, earl of Derby, duke of Hereford [or Henry Bolingbroke]

17. It is set on an engineering marvel designed by Isambard Kingdom Brunel, the Great Western Railway. For 10 points each:

[10] Name this 1844 painting which shows a train engine in the midst of the three title phenomena at Maidenhead Crossing over the Thames.

ANSWER: **Rain, Steam, and Speed**

[10] This painter of *The Fighting Temeraire* and *The Burning of the Houses of Parliament* created the impressionistic *Rain, Steam, and Speed*.

ANSWER: Joseph Mallord William **Turner**

[10] In this reformist Turner painting, a captain is trying to collect the insurance on his human cargo by drowning them before a storm hits the ship.

ANSWER: The <u>Slave Ship</u> [or <u>Slavers Throwing Overboard the Dead and Dying</u>: Typhoon Coming On]

18. Sometimes the simple model of genetic inheritance just doesn't work out. For 10 points each: [10] In this situation, a heterozygous genotype results in a visibly intermediate phenotype. A classic example of it occurs in carnations, which have red, white, and pink varieties.

ANSWER: incomplete dominance

[10] This phenomenon happens when the actions of one gene override actions of another gene in a different locus. This happens when the albinism gene overrides the gene controlling hair color.

ANSWER: epistasis

[10] In other cases, genes of completely different loci are inherited together, resulting in this situation. It is exhibited by genes for wing length and eye color in *Drosophila melanogaster*.

ANSWER: genetic linkage

- 19. The writer of the essay "On the Duties of Man," this man wrote the open letter to Charles Albert requesting that he lead a national government of Italy. For 10 points each:
- [10] Name this man who, along with Giuseppe Garibaldi and Camillo di Cavour, helped lead the Italian unification.

ANSWER: Giuseppe Mazzini

[10] Founded by Mazzini in 1831, this organization was a leading organ of the Italian unification and an alternative to the secretive Carbonari.

ANSWER: Young Italy [or Giovine Italia]

[10] Italian for "Rising Again", this is the name for the movement for Italian unification that was spearheaded by Mazzini and Young Italy.

ANSWER: Risorgimento

- 20. In 1976, Kit Bond got rid of the Missouri law ordering the extermination of this group, which had made it legal to kill them. For 10 points each:
- [10] Name this religious group, who traveled to Deseret, in Utah, after their leader Joseph Smith was killed.

ANSWER: Mormons

[10] Joseph Smith led a settlement in this Illinois city that was later settled by the utopian Icarians. Smith was killed in nearby Carthage.

ANSWER: Nauvoo

[10] This man had been named third in the Quorum of the Twelve apostles, and became a missionary in Britain. He became the leader of the Mormons after Smith's death.

ANSWER: Brigham Young

- 21. Answer the following about quantum numbers, for 10 points each.
- [10] An electron with an azimuthal quantum number of one is located in one of these dumbbell-shaped subshells. Its namesake block on the period table contains Groups 13-18.

ANSWER: p

[10] This quantum number is the eigenvalue of the azimuthal number and takes on values from negative the azimuthal value to positive of it.

ANSWER: **m** [or **magnetic** quantum number]

[10] The magnetic spin number denotes the intrinsic spin of an electron and can either be the positive or negative value of this number.

ANSWER: one-half

- 22. This phylum is the only other one besides *Chordata* to be classified as deuterostomes. For 10 points each:
- [10] Name this "spiny-skinned" phylum that contains starfish and sand dollars.

ANSWER: **echinodermata** [or **echinoderm**s]

[10] This general type of animal is found in the class *Holothuroidea*. They are long and narrow, often with spicules.

ANSWER: sea <u>cucumber</u>s [or <u>trepang</u>; or <u>beche de mer</u>; prompt on sea <u>slug</u>]

[10] The *Pisaster* starfish is the canonical example of this type of species in an ecosystem. This type of species has a large effect on the rest of the ecosystem relative to its population size.

ANSWER: **keystone** species [or **keystone** predator]