



1. **This shape inscribed in a circle can be used to produce three collinear points by Pascal's theorem. The closest packing of spheres requires either face-centered cubic or a packing named for this shape. These shapes have a circumradius equal to their side length. Each vertex is surrounded by three of these shapes when they tessellate the plane, the fewest for any regular polygon. There are 12 (*) pentagons and 20 of these in a truncated icosahedron. When regular, these shapes have 120 degree interior angles. For 10 points, name these polygons with six sides.**

ANSWER: hexagons [or regular hexagons]

190-14-86-12101

2. **In a play by this author, the exposure of a town's contaminated baths leads the townspeople to give Dr. Thomas Stockmann the title label. In another play by this author, an orphanage burns down shortly after the return of Mrs. Alving's son Oswald. He also created a woman who commits suicide after being blackmailed by Judge (*) Brack. In another play by this author of *An Enemy of the People*, Nora dramatically walks out on her husband Torvald. For 10 points, name this Norwegian playwright of *Hedda Gabler* and *A Doll House*.**

ANSWER: Henrik Ibsen

186-14-86-12102

3. **One isotope of this element with an equal number of neutrons and protons is used to absorb neutrons in cancer therapy and the control rods of nuclear reactors. Like gallium, a compound containing two elements of this element and six of hydrogen contains two three-center two-electron bonds. Beryllium-10 decays into this element via (*) beta-minus decay, and it is the first element which contains electrons in the p orbital. For 10 points, identify this element with atomic number 5 and symbol B.**

ANSWER: boron [or B until it is read]

233-14-86-12103

4. **This artist depicted a worker in the fields carrying a sickle and a straw hat in his *The Song of the Lark*. He painted two crows attacking a diagonally-oriented animal running through snow in another painting. This artist of *The Fox Hunt* worked as an illustrator for *Harper's Weekly*, producing many illustrations of the (*) Civil War. He painted three boys and a man on the sailboat *Gloucester* in one painting, whereas another shows a black man surrounded by sharks during a storm. For 10 points, name this American artist who painted *Breezing Up* and *The Gulf Stream*.**

ANSWER: Winslow Homer

227-14-86-12104

5. **The Mundell-Fleming model adds this process to the IS/LM model. Paul Krugman considered increasing returns to scale in a book on the "new" theory of this phenomenon. The Heckscher-Ohlin model generalizes a concept introduced by David Ricardo about why this practice is (*) beneficial to all involved. Wine and cloth are common examples of goods in this process, which may occur when parties have different comparative advantages. For 10 points, name this exchange of goods between different countries.**

ANSWER: international trade [or comparative advantage until it is read]

121-14-86-12105

6. **This composer's second Partita for solo violin concludes with a *chaconne* longer than the rest of the piece combined. He divided the chorus into six parts for the *Sanctus* section of his *Mass in B Minor*. He included one of the (*) first cadenzas for a keyboard instrument in the fifth of six pieces he composed for Christian Ludwig. Another of his compositions consists of a set of 24 preludes and fugues in all the major and minor keys. For 10 points, name this Baroque German composer of the *Brandenburg Concertos* and the *Well-Tempered Clavier*.**

ANSWER: Johann Sebastian **Bach**

080-14-86-12106

7. **This ruler was supported by William Laud, who was one of his so-called "Divines," and launched the Bishops' Wars to extend this man's religious policies to Scotland. Edward Coke drafted a document that opposed this ruler's policies and affirmed the right of habeas corpus. This target of the Petition of Right was defeated at (*) Naseby, and later escaped from the Siege of Oxford. His eleven years of "personal rule" ended with the formation of the Long Parliament. For 10 points, name this king who was beheaded during the English Civil War.**

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

232-14-86-12107

8. **In one poem, she wrote, "like the cat I have nine times to die," and declared, "I rise up with my red hair and I eat men like air." In another of her poems, the narrator says that "every woman adores a Fascist" and tells the title figure that "I have had to kill you." This poet of the collection (*) *Ariel* wrote a novel in which the protagonist rejects Buddy Willard and receives electric shock treatment from Dr. Nolan. This wife of Ted Hughes committed suicide in 1963. For 10 points, name this author of "Daddy" who wrote about Esther Greenwood in *The Bell Jar*.**

ANSWER: Sylvia **Plath**

131-14-86-12108

9. **This god received a golden crown from Paris after transforming into a bull to win a contest. His son Tereus was turned into a bird after raping Philomela. This god was once trapped in a bronze urn by Otus and Ephialtes. His dragon was killed by Cadmus at the Castalian Spring, and this god was injured by Diomedes during the Trojan War. He is often accompanied by (*) Phobos and Deimos, his sons with Aphrodite. For 10 points, name this god worshiped in Sparta, the Greco-Roman god of war.**

ANSWER: **Ares** [or **Mars**]

227-14-86-12109

10. **This legislation was ultimately passed without the Tallmadge Amendment. In a letter claiming that the central issue of this agreement woke him "like a fire bell in the night," Thomas Jefferson proclaimed it the death knell of the United States. The *Dred Scott* case ruled (*) unconstitutional the part of this deal that forbade slavery north of the 36-30 latitude mark. This agreement necessitated the addition of the free state Maine. For 10 points, name this 1820 compromise which let a certain Midwestern state into the union.**

ANSWER: **Missouri** Compromise

233-14-86-12110

11. **Early inhabitants of this island included the Elymi. This island is home to an archaeological site called the Valley of the Temples. According to legend, the philosopher Empedocles jumped into a volcano on this island. It was the birthplace of criminal groups called the (*) Mafia. This island lies west of the Strait of Messina and north of the Malta Channel. For 10 points, name this large Mediterranean island that is home to Mount Etna and the city of Palermo.**

ANSWER: **Sicily**

185-14-86-12111

12. In a play by this man, Alexey Tolkachov requests a revolver after having a terrible day. He wrote a short story in which Dmitry Gurov has an affair with Anna von Diederitz. Besides writing "The Lady with the Dog," this man wrote a play in which Alexander (*) Serebryakov is climactically shot at and missed by the title character. Lopakhin desires to sell the title Ranevskaya estate in this man's final play. For 10 points, name this Russian playwright of *Uncle Vanya* and *The Cherry Orchard*.

ANSWER: Anton Chekhov

224-14-86-12112

13. After World War I, this country gained control of the African territory Ruanda-Urundi. Leon Degrelle led the fascist Rexist party here. In 1908, this country took over an African territory that had been a personal possession of its king, (*) Leopold II. During the second half of the twentieth century, this country dealt with linguistic conflict between French-speaking and Dutch-speaking regions. For 10 points, name this country that, with Luxembourg and the Netherlands, is in the Benelux.

ANSWER: Kingdom of Belgium

185-14-86-12113

14. As a child, this film's protagonist repeatedly says "I wish I had a million dollars! Hot dog!" That protagonist prevents a distraught drug store owner from putting poison in a prescription. Its protagonist is ultimately excited to find he still has Zuzu's petals in his pocket. In (*) Bedford Falls, the protagonist of this film runs a building and loan business which is targeted by the sinister Mr. Potter. This movie's hero is helped by Clarence, an angel seeking to earn his wings. For 10 points, name this Christmas movie in which George Bailey wishes he had never been born.

ANSWER: *It's a Wonderful Life*

052-14-86-12114

15. Vernon Carrington founded the Twelve Tribes of Israel branch of this faith, one of its three major Mansions along with Niyabinghi and Bobo Shanti. Practitioners of this religion participate in Reasonings and follow the largely vegetarian *ital* diet. Members of this religion call God (*) "Jah" and revere Ethiopian emperor Haile Selassie. This religion regularly practices a ritual involving "ganja." For 10 points, name this religion practiced primarily by Jamaicans such as Bob Marley, many of whom have dreadlocks.

ANSWER: Rastafarianism

233-14-86-12115

16. One king with this name died in Tunis after being captured at the Battle of Fariskur. The tenth king of this name, known as "the Quarreler," executed his father's minister Enguerrand de Marigny. The sixth king with this name was called "the Fat" and was advised by Abbot (*) Suger, who worked at Saint Denis. The leader of the Seventh Crusade was the ninth king to hold this name. That man was the son of Blanche of Castile and is the only king of his country to be canonized. For 10 points, give this name of many kings of France.

ANSWER: Louis

192-14-86-12116

17. Materials that have this property possess nonzero remanence. This behavior can be explained by the alignment of atomic moments along Weiss domains, and it transitions to its anti-type at the Neel temperature and disappears above the Curie temperature. Materials with this property exhibit S-shaped hysteresis loops when their magnetization is graphed against field strength, and it remains in the absence of an (*) external magnetic field. For 10 points, name this type of magnetism exhibited by nickel, cobalt, and iron.

ANSWER: ferromagnetism [or ferromagnets; prompt on magnetism]

226-14-86-12117

18. In one essay, this author called imagination “the great instrument of moral good” and described his art form as the enlargement of imagination. He asked one addressee to be “the trumpet of [his] prophecy” in a poem describing “Yellow, and black, and pale, and hectic red, pestilence-stricken multitudes!” This author of “A Defence of Poetry” wrote of “two vast and (*) trunkless legs of stone” near an inscription reading “Look on my works, ye mighty, and despair!” For 10 points, name this English poet of “Ode to the West Wind” and “Ozymandias,” a Romantic poet.

ANSWER: Percy Bysshe Shelley

104-14-86-12118

19. This architect used a circular ebony wall and a flat onyx one to define the main living space of his Tugendhat villa. That building's cruciform chrome columns match those used in a building this man designed for the 1929 International Expo. Georg Kolbe's *Dawn* was the only decoration used in this architect's Barcelona Pavilion. After emigrating to (*) Chicago, this man designed the IIT campus and the Lake Shore Drive Apartments. This architect collaborated with Philip Johnson on the Seagram Building. For 10 points, name this final Bauhaus director whose mantra was "less is more."

ANSWER: Ludwig Mies van der Rohe

195-14-86-12119

20. This organism's salivary glands contain polytene chromosomes. Mismatched body parts in this organism led to the discovery of hox genes. Hermann Joseph Muller won a Nobel Prize for using this organism to demonstrate that X-rays can cause mutations. The first sex-linked mutation in this organism was discovered by Thomas Hunt Morgan and involves the organism having (*) white eyes instead of red eyes. Another mutation in this organism causes it to grow legs in place of antennae. For 10 points, name this model insect commonly known as the fruit fly.

ANSWER: Drosophila melanogaster [or D. melanogaster; or fruit fly until it is read]

140-14-86-12120

21. This author wrote a novel detailing Joseph Vaillant and Jean Marie Latour's journey from Ohio to New Mexico in order to run a diocese. This author of *Death Comes for the Archbishop* wrote about the Swedish Bergson family settling in Nebraska as homesteaders. This author wrote another novel centering on the daughter of the Bohemian (*) Shimerda family who is befriended by Jim Burden. For 10 points, name this American author who wrote of life on the Great Plains in novels such as *O Pioneers!* and *My Antonia*.

ANSWER: Willa Cather

230-14-86-12121

22. The glyoxylate cycle uses many of the same enzymes that are involved in this process. Several neurodegenerative diseases show a reduction of function of alpha-ketoglutarate dehydrogenase, an enzyme complex in this process. Two molecules of carbon dioxide and one molecule of FADH₂ result from this process. In its first step, oxaloacetate and acetyl-CoA combine to form citrate. This process occurs in the matrix of the (*) mitochondria and precedes the electron transport chain. For 10 points, name this cycle that follows glycolysis in cellular respiration.

ANSWER: Krebs cycle [or tricarboxylic acid cycle; or TCA cycle; or citric acid cycle]

140-14-86-12122

23. **The Galloway plan built off of a plan developed by this man at a meeting led by James DeLancey. This man wrote for his brother's paper under the pen name "Mrs. Silence Dogood." He listed "Humility" as one of his thirteen virtues in his autobiography. This common law husband of Deborah Read proposed the (*) turkey as America's national bird. This man created the "Join or Die!" cartoon to support his Albany Plan. The first Postmaster General, this man is credited with inventing bifocals. For 10 points, name this founding father who was struck by lightning while flying a kite.**

ANSWER: Benjamin Franklin

149-14-86-12123



1. Answer the following about the exploits of Klemens von Metternich, for 10 points each.

[10] Metternich is perhaps most famous for chairing this 1815 meeting, which redrew the boundaries of many European nations after the Napoleonic Wars.

ANSWER: Congress of **Vienna**

[10] Because of the troublesome nature of the Eastern Question, Metternich opposed the 1821 *Filiki Eteria*, which was led by Alexander Ypsilanti and sought to make this country independent.

ANSWER: **Greece**

[10] Metternich favored the gradual dismantling of this "Sick Man of Europe" as the solution to the Eastern question. This empire controlled Greece during the rebellion.

ANSWER: **Ottoman** Empire

233-14-86-12201

2. In a sculpture by Horatio Greenough, this man resembles Zeus. For 10 points each:

[10] Name this future president, who heroically stands on a boat in an icy river in a depiction of him *Crossing the Delaware*.

ANSWER: George **Washington**

[10] This German-American history painter decorated a stairway in the Capitol Building with *Westward the Course of Empire Takes Its Way* and created *Washington Crossing the Delaware*.

ANSWER: **Delaware** River

[10] This artist portrayed *George Washington Before the Battle of Trenton*, though he is best known for an image of the signing of the Declaration of Independence, which graces the reverse of the two-dollar bill.

ANSWER: John **Trumbull**

229-14-86-12202

3. For two years, this biologist led the Human Genome Project, and he titled his memoir *Avoid Boring People*. For 10 points each:

[10] Name this biologist, who, with Francis Crick, deduced the double helix structure of DNA.

ANSWER: James Dewey **Watson**

[10] The double helix's backbone consists of deoxyribose sugar and these anions bonded to the three prime and five prime carbons.

ANSWER: **phosphates**

[10] The spacing between the helical strands of DNA alternates between 22 angstroms and 12 angstroms. The region of 22 angstroms, where transcription factors usually bind, is given this name.

ANSWER: **major groove** [prompt on "groove"; do not accept "minor groove"]

190-14-86-12203

4. Answer the following about twentieth-century Iran, for 10 points each.

[10] This exiled religious leader became head of state after the 1979 revolution deposed the Shah.

ANSWER: Ayatollah Ruhollah **Khomeini**

[10] Although the Israeli air force would later finish the job, Iran bombed this country's nuclear reactor at Osirak in 1980.

ANSWER: Republic of **Iraq**

[10] In 1988, one of these objects operating in Iran was destroyed by missiles from the *USS Vincennes* after it was misidentified as military in nature.

ANSWER: a commercial **airplane** [or equivalents; or an Airbus **A300**]

236-14-86-12204

5. This phenomenon is used in grating spectrographs to measure the light spectrum produced by a source. For 10 points each:

[10] Name this phenomenon in which light waves bend around obstacles.

ANSWER: **diffraction**

[10] Diffraction and interference were used by Young in his double slit experiment; in that experiment, maximum's occur according to the equation distance between slits times sine of angle equals order of the maximum times this quantity.

ANSWER: **wavelength** [or **lambda**]

[10] This English physicist names a criterion stating the condition for images to be barely resolved. He also names a form of scattering that explains the sky's blue color.

ANSWER: Lord **Rayleigh**

185-14-86-12205

6. The protagonist of this novel is told he represents a portion of the Book of Ecclesiastes after Faber helps him escape the Mechanical Hound. For 10 points each:

[10] Name this novel in which the fireman Guy Montag burns books.

ANSWER: ***Fahrenheit 451***

[10] This American author of *Dandelion Wine* and *The Martian Chronicles* wrote *Fahrenheit 451*.

ANSWER: Ray **Bradbury**

[10] This wife of Guy Montag nearly dies at the beginning of the novel after overdosing on sleeping pills. She also wants to add a fourth "parlor wall" to their home.

ANSWER: **Mildred** Montag [prompt on **Montag**]

186-14-86-12206

7. Many of Quentin Tarantino's films include slavish imitations of scenes from a movie from this country. For 10 points each:

[10] Name this country whose New Wave was represented by films like *Breathless* and *Contempt*.

ANSWER: **France** [or **French Republic**; or **Republique française**]

[10] The aforementioned, filmmaker, Jean-Luc Godard, was heavily influential on the early films of this Italian-American director of *Taxi Driver* and *Raging Bull*.

ANSWER: Martin **Scorsese**

[10] This 1959 film directed by New Wave filmmaker Francois Truffaut is the first in a series of pictures about miscreant Antoine Doinel.

ANSWER: *The* **400 Blows** [or *Les quatre cents coups*]

014-14-86-12207

8. In one novel by this author, the hare-lipped title character takes his mother's ashes back to her hometown. For 10 points each:

[10] Name this author of *Life and Times of Michael K*, who wrote about David Lurie's affair with his student Melanie in *Disgrace*.

ANSWER: J. M. **Coetzee** [or John Maxwell **Coetzee**]

[10] Coetzee hails from this country. He set many of his novels during this country's apartheid era.

ANSWER: **South Africa**

[10] David Lurie is researching the poetry of this man when he seduces Melanie. This poet wrote of how "the Assyrian came down like the wolf on the fold" in "The Destruction of Sennacherib."

ANSWER: George **Gordon** [or Lord **Byron**]

186-14-86-12208

9. Name these people who committed murder in the Old Testament, for 10 points each.

[10] This farmer and eldest son of Adam and Eve murdered his shepherd brother Abel out of jealousy.

ANSWER: **Cain** [or **Qayin**]

[10] This prophet and husband of Zipporah fled from Egypt to the Midianites after killing a man who was whipping a fellow Israelite.

ANSWER: **Moses** [or **Moshe**]

[10] This later prophet killed King Agag of the Amalekites when the king would not do so.

ANSWER: **Samuel** [or **Shmuel**]

104-14-86-12209

10. The prophecy that this character will "get kings, though [he] be none" was likely included to please King James I, who was thought to be this character's descendant. For 10 points each:

[10] Identify this father of Fleance who appears in ghostly form at a banquet after his death, horrifying the play's protagonist.

ANSWER: **Banquo**

[10] Banquo is killed on the orders of the Scottish title character of this play, William Shakespeare's shortest tragedy.

ANSWER: **Macbeth**

[10] Shortly before Banquo is killed, this character arrives in the park, claiming to be sent by Macbeth. Allan Park Paton is among those who argue that this character is actually Macbeth in disguise.

ANSWER: the **third murderer** [or obvious equivalents]

029-14-86-12210

11. Identify the following about figures from American folklore, for 10 points each:

[10] Perhaps the most mythologized American was John Chapman, whose nickname came from his habit of planting this kind of crop throughout Appalachia.

ANSWER: **apple** trees

[10] In popular legend, John Henry died of exhaustion after racing a steam-powered machine to do this task.

ANSWER: **hammering** steel for railroads [accept synonyms like "**driving**"]

[10] People often claim to have seen this Yeti-like creature which supposedly inhabits the Pacific Northwest.

ANSWER: **Bigfoot** [or **Sasquatch**]

233-14-86-12211

12. At the Fourth Lateran Council, this Pope decreed that all mature Christians must confess their sins at least once a year. For 10 points each:

[10] Name this Pope, who also called the Albigensian Crusade and the Fourth Crusade.

ANSWER: **Innocent III** [prompt on **Innocent**; or **Lotario de' Conti**; prompt on partial answer]

[10] Innocent III often used this power against his enemies. People who have had this done to them are temporarily suspended from the Church and cannot receive the sacraments.

ANSWER: **excommunication**

[10] In a dispute with King John, Innocent used this extreme Papal power, which effectively excommunicated the entire country of England.

ANSWER: Papal **interdict**

014-14-86-12212

13. Consider the chemical reaction whose reactants are C_4H_8 and O_2 . For 10 points each:

[10] If this reaction is a complete combustion reaction, then what are the two products of this reaction? Name both.

ANSWER: **carbon dioxide** and **water** [or **CO₂** and **H₂O**]

[10] Every mole of C_4H_8 requires six moles of O_2 to completely combust; if there are only five moles of O_2 , then it is what type of reactant that will be completely used up when the reaction has stopped.

ANSWER: **limiting** reactant [or **limiting** reagent]

[10] In an incomplete combustion reaction, this compound and hydrogen will be present in addition to water and carbon dioxide. This compound tightly binds to hemoglobin, inhibiting oxygen transport.

ANSWER: **carbon monoxide** [or **CO**]

003-14-86-12213

14. This phenomenon was demonstrated in an experiment that trained dogs to salivate at the ring of a bell. For 10 points each:

[10] Identify this psychological phenomenon in which a neutral stimulus is presented with an unconditioned stimulus to elicit a response.

ANSWER: **classical** conditioning

[10] This Russian physiologist performed that classical conditioning study on dogs.

ANSWER: Ivan **Pavlov**

[10] John Watson classically conditioned a phobia of furry white objects in a child in this study, in which he paired the stimulus of a rat with a loud noise.

ANSWER: **Little Albert** experiment

228-14-86-12214

15. This galaxy contains the Orion-Cygnus and Perseus Arms. For 10 points each:

[10] Identify this barred spiral galaxy that contains such regions as the Crab Nebula, the Eagle Nebula, and Earth's solar system.

ANSWER: **Milky Way**

[10] A team led by Andrea Ghez determined that the center of the Milky Way contains a supermassive example of this type of object. These objects form when stars collapse beyond the Schwarzschild radius.

ANSWER: **black holes**

[10] The Milky Way is about two hundred thousand light-years from the dwarf galaxies named for this man, who discovered them during his circumnavigation of the Earth.

ANSWER: Ferdinand **Magellan** [or **Magellanic** clouds]

234-14-86-12215

16. *La Traviata* is based on a novel written by an author with this surname. For 10 points each:

[10] Give this surname of the author of *The Lady of the Camellias*. He and his more famous father had French-Creole heritage.

ANSWER: **Dumas**

[10] Alexandre Dumas, pere, wrote a series of "Romances" titled for this character, the protagonist of *The Three Musketeers* and *Twenty Years After*.

ANSWER: **d'Artagnan**

[10] In this other Dumas novel, Edmond Dantes is unfairly imprisoned in the Chateau d'If and wreaks his vengeance once he escapes.

ANSWER: *The Count of Monte Cristo* [or *Le Comte de Monte-Cristo*]

190-14-86-12216

17. Answer the following about the Paris Peace Conference ending World War I, for 10 points each:

[10] The conference directly led to the formation of this brainchild of Woodrow Wilson, the predecessor of the United Nations. This international body failed to prevent World War II.

ANSWER: the **League of Nations**

[10] Britain was represented at the conference by this Prime Minister, who is so far the only Welsh PM.

ANSWER: David **Lloyd George** [do not accept or prompt on partial answer]

[10] This clause from Article 231 of the Treaty of Versailles, written by John Foster Dulles and Norman Davis, assigned Germany the blame for WWI.

ANSWER: "war **guilt**" clause

190-14-86-12217

18. In the novel's closing words, this character proclaims, "and yes I said yes I will Yes." For 10 points each:

[10] Name this character who narrates eight monstrously long sentences in the "Penelope" episode concluding the novel in which she appears.

ANSWER: **Molly** Bloom [prompt on **Bloom**]

[10] Molly's husband Leopold is the protagonist of this massive modernist novel set in Dublin.

ANSWER: **Ulysses**

[10] *Ulysses* was written by this man.

ANSWER: James **Joyce**

190-14-86-12218

19. Answer the following about the Agricultural Adjustment Act, for 10 points each.

[10] The AAA was signed by this President as part of his New Deal.

ANSWER: **Franklin Delano Roosevelt** [or **FDR**; prompt on **Roosevelt**]

[10] The AAA had negative effects on these farmers, who gave a portion of their harvest to landowners in return for use of land.

ANSWER: **sharecroppers** [or word forms; prompt on **tenant farmer**; prompt on **sharefarming**]

[10] This court case ruled that the tax implemented by the AAA violated the Tenth Amendment. The respondent in this case shares his surname with the "Fighting Quaker," a major-general who supposedly exposed the Business Plot.

ANSWER: *United States v. **Butler***

149-14-86-12219

20. This symphony calls for a five-minute break between its first and second movements. For 10 points each:

[10] Name this symphony, its composer's second, whose massive final movement sets lines from Klopstock's poem "Die Auferstehung."

ANSWER: the "**Resurrection**" *Symphony* [or **Mahler's Second Symphony**]

[10] The "*Resurrection*" *Symphony* was composed by this Austrian. His other massive symphonies include his first, known as "Titan," and his eighth, known as the "Symphony of a Thousand."

ANSWER: Gustav **Mahler**

[10] The third movement of the *Resurrection Symphony* is this kind of light-hearted, humorous movement, which literally means "joke," that often replaces the minuet.

ANSWER: **scherzo**

014-14-86-12220

21. Their name comes from the Latin word meaning "to leap." For 10 points each:

[10] Name this common fish, similar to trout, that swim upriver during their "runs" in order to spawn. Most of its Atlantic variety are farmed, while its Pacific variety is usually wild-caught.

ANSWER: **salmon** [or **Salmonidae**; or **salmonids**; or **Salmo**]

[10] This other group of fish belonging to genus *Thunnus* are highly valued in Japan, which consumes eighty percent of these fish.

ANSWER: bluefin **tuna** [or Atlantic bluefin **tuna**; or *Thunnus* **thynnus**]

[10] Tuna are members of a very large order of vertebrates named for this kind of fish. Their "yellow" variety are found in North America and are a common small game fish.

ANSWER: **perch** [or **Perca**]

232-14-86-12221