

1. This psychologist referred to his brand of psychology as a "third force" apart from Freudianism and behaviorism. This man elaborated on a concept first proposed in *The Organism* by Kurt Goldstein. In *Towards a Psychology of Being*, he put forth a concept of human (*) motivation divided into five levels, including safety, esteem, and self-actualization. For 10 points, identify this psychologist who developed a namesake "hierarchy of needs."

ANSWER: Abraham Harold Maslow

024-09-10-03102

2. This region contains the Earth's only siderophile (sid-AIR-oh-file) elements not bonded to oxygen. Eddy currents in one subsection of this region likely interact with its solid layer to create the earth's magnetic field, a theory known as the geodynamo. The topmost portion of this region borders the (*) D-double-prime layer. The border between this region and a cooler, more viscous layer is called the Gutenberg discontinuity. For 10 points, name this layer of the earth's interior that consists of "inner" and "outer" parts, and lies below the mantle.

ANSWER: the Earth's **core** [prompt on **outer core** until "solid layer"; prompt on **inner core** until "eddy currents"; do not accept or prompt on either after those words are read]

032-09-10-03103

3. Canadian Roy Brown is credited with killing this man at Amiens (AH-mee-EN), leading to this person's replacement as commander by Hermann Göring (GERR-ing). The whimsical decorations displayed by the unit he commanded, the Jagdgeschwader (YOG-GED-gesh-vah-dare), or Flying Group 1, earned his unit the nickname of (*) "Flying Circus." This World war I ace had eighty kills and took his nickname from the color of his triplane. For 10 points, give this more common name for feared German pilot Manfred von Richthofen (RIK-toe-ven).

ANSWER: the <u>Red Baron</u> [or Der <u>Rote Freiherr</u>; or Der <u>Rote Kampfflieger</u>; accept Manfred von <u>Richthoften</u> before "more common name" is read; prompt on Manfred von <u>Richthoften</u> after "more common name" is read]

045-09-10-03104

4. Two characters in this work claim they have found a beast when they come upon the body of a downed pilot. A silent conversation in this work seems to take place between Simon and an animal head on a pole. Two groups form early on in this novel, one of which is originally made up only of (*) choir boys. One rule created in it gives the right of speech to the holder of a conch shell. A boulder in this novel kills Piggy, who sides with Ralph against Jack. For 10 points, name this novel about a group of boys stranded on an island, by William Golding.

ANSWER: Lord of the Flies

023-09-10-03105

5. This artist of the *Gypsy Madonna* painted an infant sticking his right arm into a sarcophagus, surrounded by a vain woman draped in white and a naked woman covered in red, in his allegory *Sacred and Profane Love*. This student of (*) Giorgione (jor-JO-nee) depicted two maids rummaging through a chest in a painting that inspired Manet's (mah-NAYZ) *Olympia*. In that painting by this artist, a dog slumbers at the feet of a reclining woman who only wears a bracelet. For 10 points, name the Venetian painter of *Venus of Urbino*.

ANSWER: **Titian** [or Tiziano **Vecellio**]

6. One member of this team asked his Twitter followers, "Do 'woodchucks' really exist? If so, someone twit me a pic." This team stood by idly as the Raptors' Jarrett Jack tied his shoes on the clock during a blowout. This team, that goes on an annual (*) "Circus" road trip, drafted a point guard whose SAT score got the University of Memphis in trouble. Their roster includes Tyrus Thomas and Joakim (JOE-a-keem) Noah. For 10 points, name these United Center tenants whose roster stars Derrick Rose. ANSWER: Chicago Bulls [or Chicago Bulls]

026-09-10-03107

7. Eleanor Roosevelt founded the Tractors for Freedom Committee to ransom the hostages captured during this event. Once this operation's location was selected, it was known as Operation Zapata; earlier, the overall goal was called Pluto. This event featured a drop of over one hundred fifty (*) paratroopers in Operation Falcon. Weak CIA support led to the failure of, for 10 points, what April 1961 attempt to oust Castro from Cuba, which was named for the body of water where the volunteers landed? ANSWER: Bay of Pigs invasion [or Bahía de Cochinos]

022-09-10-03108

8. This author wrote a work that sees Tony, Charis, and Roz each encounter their long dead classmate Zenia. This author of *The Robber Bride* wrote a novel centering on Snowman's participation in the Extinctathon and another in which the protagonist, formerly married to Luke, lives in a residence run by (*) Serena Joy and her husband, the Commander. That novel by this writer takes place in the Republic of Gilead and is narrated by Offred. For 10 points, name this Canadian author who wrote *Oryx and Crake* and *The Handmaid's Tale*.

ANSWER: Margaret Eleanor Atwood

064-09-10-03109

9. Like anorexia, one type of this disease can lead to Kussmaul (KOOSS-mall) breathing indicative of severe ketoacidosis (KEE-tow-ASS-id-OH-siss). Other symptoms of this disease include fatigue, thirst, hunger, and frequent urination. Type 2 of this disease often results from (*) obesity in adults, while Type 1 occurs in juveniles and is a result of the body attacking beta cells in the islets of Langerhans. For 10 points, name this illness in which the pancreas does not produce enough insulin or in which cells become insulin resistant.

ANSWER: diabetes mellitus

032-09-10-03110

10. This man claimed that "subjectivity is truth" in his attack on Hegelianism, the *Concluding Unscientific Postscript*, and equated despair with original sin. One of his works includes the section "Diary of a Seducer." This author of *The Sickness Unto Death* contrasted the "Knight of (*) Faith" and the "Knight of Infinite Resignation" in his discussion of Abraham's willingness to sacrifice Isaac. He also contrasted the aesthetic and ethical stages of life. For 10 points, name this existentialist who wrote *Fear and Trembling* and *Either/Or*.

ANSWER: Søren Aabye Kierkegaard

024-09-10-03111

11. A mineral containing this element and lead was one of the earliest semiconductors and is commonly called galena. This element is extracted by the Frasch process, and the only amino acids containing this element are (*) methionine and cysteine. The odors of onion, garlic, and skunk spray are caused by compounds of this element called thiols. A compound consisting of this element and two hydrogen atoms smells like rotten eggs. For 10 points, name this element, a yellow nonmetal with atomic number 16 and symbol S.

ANSWER: **sulfur** [or **S** before mentioned]

12. This man's dispute with Diego Velázquez de Cuéllar (SWAY-ar) led him to hastily construct the city of Veracruz and name himself governor, so that he could not be recalled to Cuba. This man employed a translator known as "La Malinche" (ma-LEEN-chay). His rearguard was massacred on a causeway across Lake (*) Texcoco during the "Noche Triste." He was the first European to see Tenochtitlán (ten-oak-teet-LON), and he conquered an empire led by Montezuma II. For 10 points, name this conquistador who founded Mexico City and conquered the Aztecs.

ANSWER: Hernán <u>Cortés</u> de Monroy y Pizarro [or Hernando <u>Cortés</u>; or Fernando <u>Cortés</u>; do not accept or prompt on "Pizarro"]

026-09-10-03113

13. In this work, Bertran de Born is seen carrying his own head, and both Mohammed and Ali (AH-lee) are seen being split in half. This work begins on the night before Good Friday, "halfway along our life's path," indicating that the narrator is 35 years old. An entrance in this work has a sign reading (*) "abandon all hope, ye who enter here." At the end of this work, the narrator, while being guided by Virgil, encounters Brutus, Cassius, and Judas next to Satan. For 10 points, name this first part of the *Divine Comedy* by Dante Alighieri.

ANSWER: The Inferno [or Hell; accept The Divine Comedy or La Commedia before "Virgil" is read]

064-09-10-03114

14. This man has termed his strategy for keeping control of projects away from business and political interests as the "organization of the artist." He originally named his *Dancing House* in Prague after Fred Astaire and Ginger Rogers. One building designed by this architect has a monorail running through it. This designer of the (*) *Experience Music Project* also used the Nervion River for the backdrop of a sailboat-shaped museum. For 10 points, name this Canadian architect of the Guggenheim Museum in Bilbao.

ANSWER: Frank Gehry

015-09-10-03115

15. In this novel, the protagonist's group is described as "mule drivers" and "mud diggers." The protagonist abandons a "tattered man" and his colleague Jim Conklin. Wilson takes care of the protagonist of this work, believing him (*) wounded, when in fact he was hit in the head with a rifle. At the end of this novel, the 304th Regiment is victorious. For 10 points, name this novel featuring Henry Fleming's adventures and maturation in the Civil War, a work by Stephen Crane.

ANSWER: The Red Badge of Courage

062-09-10-03116

16. In this work, which begins when one character leaves a gate open, a character played by the flute mocks another for being unable to fly. The return of the oboe at the end of this composition signifies that one character has been swallowed alive and is (*) quacking from the stomach of a character represented by the French horns. A clarinet represents the cat, and a bassoon represents the grandfather of one title character. For 10 points, name this work in which a boy outsmarts a canine, composed by Sergei Prokofiev.

ANSWER: **Peter and the Wolf**

17. The Kufa (KOO-fuh) version of this text settles on dividing it into 6,236 ayahs (eye-AHZ), the largest of the four competing numbers. Other systems include a way to read it in one week, which divides it into seven manazils (muh-NAH-zeelz), and a way to read it in a month, comprised of thirty (*) juz (JEWZ). The most frequently used chapterization of this book creates sections such as "The Key" and "The Cow," called suras (SOO-rahz). For 10 points, name this sacred text which was revealed in the early seventh century by Gabriel to Muhammad, in Islamic belief.

ANSWER: al-Quran [or The Koran]

019-09-10-03118

18. As a child, this ruler survived both the Parliament's Fronde and the Princes' Fronde. This king issued the Edict of Fountainbleu (FON-ten-blow), which revoked the (*) Edict of Nantes (NONZ). This ruler fought the War of Spanish Succession to put his grandson Philip V on Spain's throne. This king legendarily declared "I am the State" and built a massive palace at Versailles (ver-SAI). For 10 points, name this absolutist French monarch, who ruled for seventy-two years and was known as the Sun King.

ANSWER: Louis XIV

015-09-10-03119

19. The EPR paradox requires that either this principle or locality must be broken. One of the consequences of this principle is the existence of the Tolman-Oppenheimer-Volkoff limit of neutron stars, because it provides for the degeneracy pressure that supports them. Although (*) bosons do not obey it, this law applies for all particles governed by Fermi-Dirac statistics. For 10 points, what principle, which states that no two fermions can share all four quantum numbers, forces electrons in the same subshell to have different spin?

ANSWER: Pauli Exclusion Principle

034-09-10-03120

20. This river's valley was the subject of the Johnston Unified Water Plan, which involved using Lake Tiberias as a reservoir. It is formed from the confluence of the Hasbani, Dan, and Banyas; a secret project attempted to divert the Hasbani and Banyas to the Yarmuk River instead. Use of this river is a point of contention between (*) Israel and the country named for this major source of the Dead Sea. For 10 points, name this river which is mentioned in many gospel songs because, in the Bible, it is where Jesus is baptized.

ANSWER: Jordan River

003-09-10-03121

21. One sign of this disease is paired helical filaments formed from tau protein. One explanation for this disease attributes it to reduced synthesis of acetylcholine (uh-SEE-tul-KO-leen). The frequent development of this disease by age forty among those with Down syndrome lends credence to a hypothesis that it stems from a precursor protein coded for on chromosome twenty-one. That hypothesis attributes this disease to the (*) buildup of amyloid (AA-mill-oid) beta plaques. For 10 points, name this common form of dementia, which causes confusion and memory loss.

ANSWER: Alzheimer's disease



- 1. At one battle, this man asked God to have the sun and the moon to stand still so the battle could be fought in daylight. For 10 points each:
- [10] Name this man who led the Israelites after the death of Moses.

ANSWER: Joshua [accept Hoshea]

[10] Joshua led the Israelite conquest of this city. The walls of this city fell after they marched around the city for seven days.

ANSWER: Jericho

[10] This Jericho native hung a red cord from her window to remind the Israelites that she had aided them by sheltering their spies.

ANSWER: Rahab

064-09-10-03201

- 2. In this novel the Mexican migrant worker Terry falls in love with the main character, Sal Paradise. For 10 points each:
- [10] Name this novel about the Beat generation, which is about Sal Paradise's road trip across America. In the novel he encounters figures like Carlo Marx, who is based on Allen Ginsburg.

ANSWER: On The Road

[10] On The Road is a novel that was written on a 120-foot long single roll of paper by this author. He also wrote about Ray Smith, a convert to Buddhism, in *The Dharma Bums*.

ANSWER: Jack **Kerouac** [or Jean-Louis Lebris de **Kerouac**]

[10] In *On The Road*, this character accompanies Sal Paradise on many of his travels. This character, who was inspired by Neal Cassady, divorces Marylou for Camille.

ANSWER: **Dean Moriarty** [accept either name]

027-09-10-03202

- 3. It arose under the leadership of Lech Walesa at the Lenin Shipyards. For 10 points each:
- [10] Name this labor union, which successfully opposed the Communist government of Poland in the 1980s.

ANSWER: Independent Self-Governing Trade Union <u>Solidarity</u> [or Niezalezny Samorzad Zwiazkow Zawodowych <u>Solidarnosc</u>]

[10] Solidarity originated in this city, which, prior to World War II, was an independent city-state whose large German population became a pretext for the Nazi invasion of Poland.

ANSWER: Gdansk [or Danzig]

[10] Direct Soviet intervention in Poland to counter Solidarity was a constant threat due to this 1955 treaty, which bound Eastern European governments into a Soviet-dominated military alliance.

ANSWER: Warsaw Pact [or Warsaw Treaty of Friendship, Cooperation, and Mutual Assistance]

- 4. This symphony was written to allow the performers to protest the fact that they could not leave the Esterhazy estate. For 10 points each:
- [10] Name that work in F sharp minor, which concludes with only two violins playing after all other performers have left the stage.

ANSWER: "Farewell" symphony [or Symphony number 45]

[10] This composer of the "Farewell" symphony also wrote a set of "Paris" symphonies and a "Surprise" symphony.

ANSWER: Josef Haydn

[10] Haydn is sometimes known as the "father of" this genre. He wrote "Prussian" and "Sun" sets of these pieces, along side his "Emperor" one. Dvorak wrote an "American" one.

ANSWER: string quartets [prompt on quartet]

032-09-10-03204

5. For 10 points each, name these anthropologists.

[10] This French anthropologist, notable for doing very little fieldwork, described the kula ring in his work *The Gift*. He also described the "Nature and Function" of sacrifice.

ANSWER: Marcel Mauss

[10] This Polish anthropologist did much of the fieldwork that Mauss analyzed in *The Gift*. His works about the Trobriand Islanders include *Argonauts of the Western Pacific* and *Coral Gardens and Their Magic*.

ANSWER: Bronislaw Kasper Malinowski

[10] Malinowski himself was allegedly inspired to become an anthropologist after reading *The Golden Bough*, a work by this Scottish anthropologist whose other attempts to interrelate the myths, rituals, and cults of ancient cultures include *Man*, *God*, *and Immortality* and *Totemism and Exogamy*.

ANSWER: James Frazer

003-09-10-03205

6. David Ruffin and Eddie Kendricks rejoined this group for their 1982 album *Reunion*. For 10 points each:

[10] Name this Motown group that recorded "My Girl" and "Papa Was a Rollin' Stone."

ANSWER: The Temptations

[10] *Reunion*'s lead track, "Standing on the Top," featured this nephew of Temptations member Melvin Franklin, himself a music star, who also wrote and produced the song. He collaborated with Eddie Murphy on "Party All the Time."

ANSWER: Rick **James** [or James Ambrose **Johnson**, Jr.]

[10] This Rick James track featured the Temptations on background vocals. Its main riff was later sampled on "U Can't Touch This."

ANSWER: "Super Freak"

003-09-10-03206

- 7. They can be classified as "nonsense" or "missense." For 10 points each:
- [10] Name these abnormalities in the genome, which are thought to be the main mechanism behind natural selection as beneficial ones continue to be passed down while harmful ones die out.

ANSWER: mutations

[10] In this type of mutation, a single nucleotide is changed. It differs from a frame-shift mutation, in which the entire open reading frame is shifted.

ANSWER: point mutations

[10] This technique replaces a DNA strand containing a functional gene with one artificially mutated to not contain the gene. It is commonly used to study a gene's typical role, especially in a namesake kind of mouse.

ANSWER: gene knockout

- 8. For 10 points each, answer the following about variously named Force Bills.
- [10] In 1833 this president signed a Force Bill that would allow the military to enforce laws, especially tariffs.

ANSWER: Andrew Jackson

[10] A Force Bill passed in 1871 allowed the President to suspend this right, which had previously been suspended during the Civil War, in "lawless areas."

ANSWER: right of habeas corpus

[10] This Senator introduced an 1889 "Force Bill" intended to enforce the Fifteenth Amendment but is better known for blocking U.S. entry into the League of Nations.

ANSWER: Henry Cabot Lodge

003-09-10-03208

- 9. Silicon is the most widely-used example of this kind of material. For 10 points each:
- [10] Give the classification of materials which have electrical conductivity greater than an insulator but less than a conductor.

ANSWER: semiconductors

[10] Another common semiconductor is this element, which Dmitri Mendeleev (men-duh-LAY-ev) called "eka-silicon" when he theorized the existence of an element in between silicon and tin on his Periodic Table.

ANSWER: **germanium** [or **Ge**]

[10] In this process, small impurities are added to create excess electrons or electron holes. Elements such as gallium are added in the p-type version of this process, and elements such as arsenic are added in the n-type.

ANSWER: **doping** [or word forms]

003-09-10-03209

10. In this work, Marsile, the ruler of Saragossa, falsely offers to convert to Christianity. For 10 points each: [10] Name this epic poem titled after a hero who wields the sword Durandal, is betrayed by his stepfather

Ganelon, and dies at Roncesvalles Pass.

ANSWER: The Song of Roland [or La Chanson de Roland]

[10] This Frankish king avenges Roland in the epic.

ANSWER: Charlemagne

[10] This is the name of Roland's horn, which he finally blows just before dying.

ANSWER: Oliphant

063-09-10-03210

- 11. This opera begins with the orchestra playing a one hundred and thirty six measure E flat chord representing the body of water in its title. For 10 points each:
- [10] Name this opera, whose plot is set in motion when the dwarf Alberich renounces love and seizes the treasure of three maidens, intending to turn it into a magic ring.

ANSWER: Das **Rheingold** [or The **Rhine Gold**]

[10] This German composer's four opera Ring cycle begins with *Das Rheingold*. He also composed *The Flying Dutchman*.

ANSWER: Richard Wagner

[10] The second opera in Wagner's Ring cycle ends with Brunnhilde, one of these warriors, placed in an enchanted circle of fire. The third act of that opera begins with a composition representing the ride of these warriors.

ANSWER: Valkyries

- 12. At the end of this play, a dying man announces that only Theseus shall know his burial-place and prophesies that his two sons will perish violently. For 10 points each:
- [10] Name this play, in which Creon sends a party to kidnap the daughters of the exiled king of Thebes.

ANSWER: <u>Oedipus at Colonus</u> [or <u>Oidipous epi Kolonoi</u>]

[10] *Oedipus at Colonus* is joined in Sophocles's Theban trilogy by *Oedipus Rex* and this play, named for the daughter of Oedipus who buries Polynices against Creon's orders.

ANSWER: Antigone

[10] *Oedipus at Colonus* is the only play in the trilogy without an appearance by this blind, gender-changing prophet, who explains the curses on both Oedipus and Creon.

ANSWER: Tiresias

019-09-10-03212

- 13. In Norway, members of this ethnicity are the only people allowed to engage in reindeer herding. For 10 points each:
- [10] Name this ethnic group of northern Scandinavia.

ANSWER: **Sami** [or **Saami**; or **Lapp**s]

[10] Sapmi, the home of indigenous Sami, includes the Scandinavian coastline along this sea. Port cities on this sea, which is named after a Dutch explorer, include Murmansk.

ANSWER: **Barents** Sea

[10] The Norwegian coast along the Barents Sea is dotted with these inlets, caused by seawater overflowing a valley created by glacial movement.

ANSWER: **fjord**s

003-09-10-03213

- 14. This essay ends with a reminder that the author does not stand to benefit personally from his idea, as his youngest child is nine years old and his wife is past childbearing age. For 10 points each:
- [10] Name this satirical pamphlet, which suggests that Irish children be sold as food.

ANSWER: "A <u>Modest Proposal</u> For Preventing The Children of Poor People in Ireland From Being A Burden to Their Parents or Country, and For Making Them Beneficial to The Public"

[10] This author of *The Drapier's Letters* and *Gulliver's Travels* wrote "A Modest Proposal."

ANSWER: Jonathan Swift

[10] The "digression in praise of digression" and the Aeolists, who worship man's windmaking capacities, appear in this other Swift satire, in which Peter, Martin, and Jack represent three Christian sects.

ANSWER: A <u>Tale of a Tub</u>: To Which Is Added an Account of a Battle Between the Ancient and Modern Books in St. James's Library; and the Mechanical Operation of the Spirit

019-09-10-03214

- 15. This event saw fighting occur at Killicrankie and Dunkeld. For 10 points each:
- [10] Name this 1688 revolution which saw James II replaced by the Dutch William III on the English throne.

ANSWER: **Glorious** Revolution

[10] The Glorious Revolution led to this uprising that aimed at restoring James II and lasted until 1746.

ANSWER: **Jacobite** uprising

[10] This was the 1746 battle that effectively destroyed the Jacobite uprising. In it, forces under the Duke of Cumberland defeated Jacobite forces under Charles Edward Stuart.

ANSWER: Battle of **Culloden**

- 16. For 10 points each, name these things related to the Russian physicist Lev Landau.
- [10] Along with Vitaly Ginzberg, Landau postulated a theory of this phenomenon, the complete loss of electrical resistance in a material.

ANSWER: superconductivity

[10] The Landau-Lifshitz Equation models an anistropic type of this entity, which has north and south poles, based on variations across time.

ANSWER: magnet

[10] Landau expressed the free energy of a system as one of these expansions applied to the order parameter. They involve terms proportional to the *n*th derivative of a function times a variable to the *n*th power.

ANSWER: **Taylor** series

040-09-10-03216

- 17. This god's queen was Proserpina, a daughter of Jupiter. For 10 points each:
- [10] Name this Roman god of the underworld, who received black sheep as sacrifices. His Greek counterpart with a similar history is Hades.

ANSWER: Pluto [or Dis Pater]

[10] This goddess was Prosperina's mother. The goddess of growing plants, she is the Roman equivalent to Demeter and is a sister to Jupiter and Pluto. Grains were offered up to her.

ANSWER: Ceres

[10] The story of Pluto and Proserpina is similar to that of Hades and this goddess in Greek mythology. She spent time both in the underworld and above ground, which explained the changing seasons.

ANSWER: Persephone

052-09-10-03217

- 18. The first question of the first one of these was a simple "Why didn't you burn the tapes?" For 10 points each:
- [10] Name this series of 1977 interviews, the only place a disgraced president ever publicly apologized for his actions and possible crimes.

ANSWER: The David **Frost** and Richard Milhous **Nixon** Interviews

[10] That first Frost/Nixon interview primarily concerned this recent political scandal, the cover-up of a break-in at the namesake hotel.

ANSWER: Watergate

[10] This White House "plumber" and CIA operative engineered the Watergate break-in. In a posthumously released audiotape he alleged Lyndon Johnson was responsible for the JFK assassination.

ANSWER: Everette Howard Hunt

002-09-10-03218

- 19. His *Vision after the Sermon* shows a group of white-capped nuns watching Jacob wrestling with an angel. For 10 points each:
- [10] Name this French painter of *Where do we come from? What are we? Where are we going?* whose works were inspired by his time in Tahiti.

ANSWER: Paul Gauguin

[10] Gauguin painted a "Yellow" version of this Biblical character, who is perishing while three nuns pray and a man hops over a fence in the background.

ANSWER: <u>Jesus Christ</u> [accept either; accept obvious equivalents]

[10] Gauguin was a forerunner of this movement, led by Henri Matisse, whose name means "wild beasts."

ANSWER: Fauvism

20. An example of the star ones is the pentagram. For 10 points each:

[10] Give this term for a closed plane figure whose sides are straight segments.

ANSWER: polygon

[10]Some polygons can be to make one of these tiling of a plane with no gaps.

ANSWER: tessellation

[10] Also called plane symmetry groups, This term refers to the two dimensional space groups. There are 17

of these.

ANSWER: wallpaper groups

001-09-10-03220

21. They all posses pharyngeal slits at some point in their life cycle. For 10 points each:

[10] Name this phylum, whose subphyla (SUB-FIE-luh) include Vertebrata.

ANSWER: Chordata [or Chordates]

[10] In Chordate embryos this flexible rod-shaped structure gives support. In vertebrates, it gives way to the vertebral column.

ANSWER: notochord

[10] These members of class Myxini contain a cartilaginous skull, but lack both jaws and a vertebral column. They are the most evolutionary advanced Chordates not to be included in Vertebrata.

ANSWER: hagfishes