

New Trier Scobol Solo 2013

Round 14



1. The acceleration named for this person can take place when particles repeatedly cross the shock front caused by a supernova. The type of gas named for this person exerts pressure even at absolute zero.
- ▼ This person and Paul Dirac worked out the statistical distribution of particles that obey the Pauli Exclusion Principle, which is why such particles are named for this person. Those particles, which have non-integer spins, are contrasted with particles named for Satyendra Nath Bose. Name this Italian American who created Chicago Pile-1 in 1942, the first man-made nuclear chain reaction.

Answer: Enrico **Fermi**

2. In 2013, Interbrand determined that this company has the best global brand. This company, which was criticized for charging too much for its Lisa and creating too many versions of its Performa, had its first products designed by Steve Wozniak. This company bought the search engine Chomp in 2012, and it hosts an annual Worldwide Developers Conference at Moscone West in San Francisco. This company is headquartered in Cupertino, and its CEO is Tim Cook. Its former leader, who also headed Pixar and NeXT, was Steve Jobs. Name this company that produces Safari, Mac computers, iTunes, and iPhones.

Answer: **Apple** (Computer) Inc.

3. This author wrote of an orphan who is helped by Colonel Creighton after he is separated from Teshoo Lama. This author wrote about that boy working for Mahbub Ali in Lahore before looking for the “River of the Arrow”. In a story by this author, Darzee sings about the death of Nag, and Teddy and his family are threatened by Nagaina [nah-gah-ee-nah]. In one of this author’s novels, the only being in the forest not afraid of fire attacks Shere Khan with a burning branch. Name this author of *Kim* and “Riki-Tiki-Tavi” who created the characters of Baloo, Bagheera, and Mowgli in *The Jungle Book*.

Answer: (Joseph) Rudyard **Kipling**

4. Along with Robert Livingston and Gouverneur Morris, this person drafted the first Constitution of New York. Due to vote counting technicalities, he lost to George Clinton in an election for governor of New York, but he was elected to the position three years later. This politician agreed to arbitration to settle American debts in exchange for the removal of English troops from Western forts in a 1794 treaty that bears his name, and he contributed essays to Alexander Hamilton and James Madison’s *Federalist Papers*. Name this Federalist who served as the first U.S. Chief Justice.

Answer: John **Jay**

5. Herman J. Müller received the 1946 Nobel Prize for inducing this phenomenon in fruit flies, and Pearson syndrome is a pancreas disease resulting from this process in the mitochondria. The CCR5 delta-32 type of it gives humans resistance to HIV, while the pyrimidine dimer form linked to melanoma is caused by UV rays. Proofreading by polymerase does not always prevent the severe frameshift type of it, and point examples include silent, missense, and nonsense. These events provide the genetic variety needed for evolution but are also responsible for diseases like cystic fibrosis and hemophilia. Name this change to a DNA sequence that can affect the phenotype of an organism.

Answer: **mutation** [accept word forms]

6. This person's early fusion work often featured guitarist John McLaughlin, who is the namesake of one of this musician's songs. McLaughlin is featured, along with pianists Chick Corea and Herbie Hancock, on this person's album *In a Silent Way*. This performer often worked with pianist and arranger Gil Evans, and they featured the second movement of Joaquin Rodrigo's composition *Concierto de Aranjuez* [ah-rah-n-HWEZZ] on the album *Sketches of Spain*. Name this trumpeter who placed the songs "Blue in Green", "So What", and "Freddie Freeloader" on his album *Kind of Blue*.

Answer: Miles (Dewey) **Davis** (III)

7. Employers and unions in this country made the Wassenaar Agreement in 1982, leading to a political consensus called the Polder model that was criticized by Pim Fortuyn until he was assassinated. During World War Two, the Nazis stopped food shipments in this country, causing the Hunger Winter. Part of a kingdom that includes Aruba, Curaçao, and Sint Maarten, this country considers its first king to be William the First of Orange, and it was recently headed by Queen Beatrix. During the 1830s, Belgium separated from this country. Name this country often referred to as Holland.

Answer: The **Netherlands** [prompt on **Holland**]

8. In one story by this man, an American in Spain is trying to convince his girlfriend Jig to have an operation. In another story by this man, Robert Wilson sleeps with Margot after her husband is unable to shoot a lion. This author of "Hills Like White Elephants" and "The Short Happy Life of Francis Macomber" wrote about Brett Ashley, who is engaged to Mike Campbell but is also loved by Pedro Romero, Robert Cohn and Jake Barnes. In another work, this author wrote about Catherine Barkley and Frederic Henry during World War One. Name this author of *The Sun Also Rises* and *A Farewell to Arms*.

Answer: Ernest (Miller) **Hemingway**

9. This is the first holiday of the year in which “Al Ha-Nissim” is added to the *Amidah*. Hillel and Shammai debated whether a ritual for this holiday should be done increasingly or decreasingly; that ritual involves a *shamash*. On this holiday, children play a game involving a device marked with initials referring to “a great miracle” and sing songs including “Ma’oz Tsur”. The aforementioned device is a dreidel, and the miracle of this holiday is oil in the Temple burning for eight days after a revolt led by Judah Maccabee. Name this Jewish festival that includes the lighting of a nine-branched menorah.

Answer: **Chanukah** or **Hanukkah**

10. One unsolved problem in finding the number of these shapes is named for Kobon Fujimura. This shape is commonly used to represent the first iteration of a Koch snowflake or a Sierpinski gasket. The sequence of numbers named for this shape is generated by adding consecutive natural numbers. The area of one of these shapes can be computed using Heron’s formula, and its side lengths and angle measures can be found using the Law of Sines or Law of Cosines. Two of these can be proved to be similar by showing that two corresponding angles are congruent. Name these shapes whose interior angles add up to 180 degrees and which have three vertices.

Answer: **triangles**

11. This collection claims that one certainty is that “This life flies” and that “the rest is lies”. One verse wishes to remold “this sorry Scheme of Things” to be “nearer to the Hearts’s Desire!”. A phrase originating in this work is “The Moving Finger writes; and, having writ, / Moves on.” The twelfth section of this work makes a comparison between paradise and “A Jug of Wine, a Loaf of Bread-and Thou”. This work was first translated by Edward FitzGerald. Name this collection of 11th- and 12th-century quatrains written in Persian by Omar Khayyam.

Answer: *The **Rubaiyat** of Omar Khayyám* [accept similar answers that include **Rubaiyat**]

12. This man declined an invitation to advise the Fifth Lateran Council on calendar reform, and his observation of an eclipse of Aldebaran helped him determine the diameter of the Moon. The seven assumptions of the model in this man’s *Little Commentary* includes the belief in perfect, circular orbits, though the evidence gathered in his *On the Revolutions of the Celestial Spheres* was used by Galileo to promote a change in the way people viewed the solar system. Arguing against the Ptolemaic system of astronomy, name this Polish scientist who developed the heliocentric model of the universe.

Answer: Nicolaus **Copernicus** [or Mikołaj [MEE-koh-wye] **Kopernik**]

13. One work written by this person includes a description of a chariot pulled by two horses, one that is noble and one that is not. Another work written by this person claims that people with true knowledge are treated as useless stargazers. This person wrote about a dinner party at which each person gives a speech about the nature of love, including a speech encouraging the guests to be lovers of wisdom. This author of *Phaedrus* also wrote *Symposium* and *The Republic*. Name this ancient Greek philosopher who taught Aristotle and whose dialogues often included his teacher, Socrates.

Answer: **Plato**(n)

14. The pastel version of this work, which was created two years after the first two versions, depicts one of the two people in the background leaning over the bridge and most clearly shows a boat in the background lake. In the last version of this work, completed in 1910, the foreground character does not have eyeballs. There is debate over whether this work's red sky was influenced by the Krakatoa eruption. The 1893 pastel version of this work is displayed at the Nationalgalleriet in Oslo. Name this work showing a man with his hands around his head and his mouth and eyes wide open, created by Edvard Munch [moonk].

Answer: *The **Scream** (of Nature)* [or ***Skrik*** or *Der **Schrei** der Natur*]

15. One book explaining the knowledge of this group has a name that translates as *Sea of Myriad Rivers Merging*. Its two schools were Iga and Koga until those were broken up by Oda Nobunaga. The weapons these people used included straight swords and shuriken, which are thrown weapons that contain blades in the shape of a star. These people were sometimes contrasted with the more upper class samurai, though some individuals took both roles, and they are sometimes called shinobi. Name these Japanese spies who, contrary to popular belief, rarely wore black.

Answer: **ninjas** [accept **shinobi** before it is mentioned]

16. This composer dedicated his *Severn Suite* to his friend George Bernard Shaw. This composer, who edited works he wrote in childhood to create *The Wand of Youth*, also wrote a *Cockaigne Overture* in honor of his home country. A work by this composer was based on a poem about a pious man's journey to purgatory by Cardinal Newman. Hans Richter conducted the premier of a work by this man that includes the "Nimrod" variation. This composer of the *Enigma Variations* and *The Dream of Gerontius* composed a march that is commonly played at graduations. Identify this composer of the *Pomp and Circumstance* Marches.

Answer: Edward (William) **Elgar**

17. At the start of this battle, Abraham Owen was killed by enemy forces that mistook his white horse for that of his commander. After Spier [“spear”] Spencer was killed, his Yellow Jackets panicked and retreated from the southern front. This battle began after the losing commander cast a magic spell to reassure his forces that enemy bullets would not harm them, and it ended with the flight of Tenskwatawa and the sack of Prophetstown. Name this 1811 battle in which Native Americans led by the brother of Tecumseh were defeated by the forces of William Henry Harrison.

Answer: Battle of **Tippecanoe** [accept Battle of **Prophetstown** before “Prophetstown”]

18. One of the mathematical procedures in this field of chemistry is the Rietveld refinement, which increases the success rate when powder diffraction is used. Some calculations in this discipline are simplified by the Weiss zone law. An equation in this science sets an integer times wavelength equal to twice distance times the sine of the incidence angle. That equation, used to analyze X-ray diffraction results, is Bragg’s law. Name this science that categorizes many solids as triclinic, orthorhombic, hexagonal or cubic to describe their lattice structure.

Answer: **crystallography**

19. This mountain range includes Mummy Range, which runs from the Chapin Pass to Signal Mountain. One of this range’s highest peaks in its Rainbow Range is Mount Robson, which is west of the town of Jasper and northwest of Banff. Its southern end is just north of the Sandia-Manzano Mountains, and there is disagreement as to whether its northern end includes the Brooks Range. Some of the most visited peaks in this range include Mount Owen, Longs Peak, Grand Teton, and Pikes Peak. Name this mountain range that stretches from Canada down to New Mexico, the largest range in the United States.

Answer: **Rocky** Mountains [or **Rockies**; accept answers that additionally mention “Canada”]

20. In this novel, Azelma and her sister do not want to share their doll, and a coin is stolen from Gervais [zhair-vay]. Gavroche [gahv-rohsh] helps his brothers live in the hollow part of an elephant statue during this novel. One character, Champmathieu [shahm-mah-tyoo], who physically resembles this novel’s protagonist, is accused of stealing apples. Fauchelevent [fosh-lay-vawn] is pinned under a cart and rescued by that protagonist pretending to be Monsieur Madeleine. In this work, the Thénardiens take advantage of Fantine’s [fahn-teen’s] daughter Cosette. Name this novel in which Inspector Javert [zhah-vair] pursues Jean Valjean [zhahn val-zhahn], a work by Victor Hugo.

Answer: *Les **Misérables*** [or *The **Wretched** Ones* or *The **Miserable** Ones*]

TB. The Hounsfield example of this concept aids interpretation of CT scans, while the Palermo and Torino types assess the impact risk of astronomical objects. Some of these from Earth science use criteria like the collapse of chimneys, white crests forming, and large trees being uprooted. Notable logarithmic examples of these are used to define units that rate loudness and acidity, and Kelvin is an absolute one for temperature. They consist of a progressive series of steps used to measure some phenomenon. Name these scientific concepts exemplified by the Richter, pH, and Mohs hardness ones.

Answer: scales [prompt on units]

TB. In one work by this author, a hunting party is guided by a blank piece of paper to a mysterious land. In another work by this author, a mob is confused whether to shout “Less taxes, more bread” or “More Bread, Less taxes”. This author of “The Hunting of the Snark” and *Sylvie and Bruno* also wrote a work in which the title character is followed by her cat Dinah. This man created the Queen of Hearts in addition to the Cheshire Cat. Name this author of *Alice’s Adventures in Wonderland*.

Answer: Lewis Carroll [or Charles (Lutwidge) Dodgson]

TB. Identify the color that is combined with the word *gris* to name a waxy substance produced by whales that is a traditional component of perfume, describes the type of emergency alert issued after a child is kidnapped, and names the fossilized tree resin that often contains trapped insects.

Answer: amber