Question #1: Literature

10 points

In this play, the phrase "Take warning, my masters, we'll scotch you in the end" is repeated by a harem mistress, while another member of that harem loses her status as Favourite due to pulling her master's armpit hairs too hard. Six female dancers chasing a male dancer in this play interrupt the wooing of a new wife to join Ailatu ["eye"-LAH-too] and Sadiku [sah-DEE-koo]. The female title character refuses to marry without a bride price, spurning Lakunle [lah-KOOH-lay] and marrying the chief of Iluninle [il-oo-NIN-lay], Baroka. Name this play about the marriage of Sidi written by Wole Soyinka [wah-leh soh-YEEN-kah].	*The* ***Lion and the Jewel***

Question #2: Science

10 points

Hyper*para*thyroid*ism is diagnosed by an elevated level of this element in the blood. Most of this element in the human body is stored in hydroxylapatite ["hide-ROCK-sill-appetite"] crystals. Muscle contraction relies on proteins that bind to this element, such as troponin-C ["TROPE-oh"-nin "C"]. Levels of this element in the body can be increased by osteoclasts [AH-stee-oh-klasts]. Vitamin D in the blood facilitates absorption of this element to help in clotting and in preventing osteoporosis [AH-stee-oh-por-OH-siss]. Name this element that humans often take in from dairy products, and which is primarily stored in bone.	**calcium** [accept **Ca**]

Question #3: Social Studies

10 points

W. E. B. Du Bois [doo boyss] said this person "is either a lunatic or a traitor". This person was convicted of mail fraud for a flyer that made it look like his company had purchased the ship *Orion*, and he was deported from the United States after serving two years in prison. This person held an international rally in Liberty Hall in 1920 that was followed by 50,000 people marching through Harlem. This person started the Negro Factories Corporation, and he owned the Black Star Line. Name this founder of the Universal Negro Improvement Association who supported Pan-Africanism and was from Jamaica.	Marcus (Mosiah) **Garvey** (Jr.)

Question #4: Miscellaneous

10 points

The people who developed this method also started a company with the same name which in turn created Verisign and the DES Challenges. Peter Shor wrote that a quantum computer could defeat this process faster than a classical computer could perform this process. This method, which depends on it being difficult to factor large numbers that are the product of two primes, was first described in the article "A Method for Obtaining Digital Signatures and Public-Key Cryptosystems". Name this cryptography algorithm whose name is taken from the first letters of the last names of the three people who devised it.	**RSA** cryptography [prompt on **cryptography** or **encrypt**ion or **encrypt**ing or **public-key** encryption before "cryptosystems"]

Question #5: Science

10 points

The condensation of a molecule of this compound with two molecules of phenol [fee-nawl] makes the plastic ingredient bisphenol A [BISS-fee-nawl "A"]. One combination of this compound and peroxide is called TATP ["T-A-T-P"] and used in explosives, which is unusual for a molecule lacking nitrogen. Ketone ["key-tone"] bodies contain a molecule that combines this molecule with carbon dioxide. This molecule can soften superglue. Because of its molecular constituents, this molecule can be called di*methyl carbonyl ["die-METH-ill car-bun-ill"]. Name this simplest ketone used in paint thinners and nail polish remover.	**acetone** [or 2-**propanone** or **dimethyl ketone**]

Question #6: Social Studies

10 points

Followers of this person believe that his handprint can be found on a boulder that was pushed towards him after he found a source of water. The water helped Mardana, who often traveled with this person and Bala. As a child, this person explained the significance of the first letter of the alphabet and refused to wear a sacred thread. This person renamed one of his followers "Angad" and made Angad his successor shortly before this person died in 1539. Name this person born in Punjab [POON-job] who started the *Guru Granth Sahib* and was the founder of Sikhism.	Guru **Nanak** (Dev Ji) [prompt on any non-underlined portion or portions of the name]

Question #7: Mathematics

10 points per part

	In this type of quadrilateral, one diagonal perpendicularly bisects the other, but not vice versa.	
1	Name this quadrilateral that has two pairs of *adjacent* congruent sides.	**kite** [or **deltoid**]
2	Find the area of a kite whose diagonals measures 6 units and 7 units.	**21** square units
3	Find the area of a kite if its sides measure 5 units and 6 units, and the angles between the non-congruent sides measure 30°.	**15** square units

Question #8: Mathematics

10 points per part

	This rule is often named for René Descartes [ren-ay deh-kart], who described it in *La Géométrie* [lah zheh-oh-meh-tree].	
1	Name this rule that gives an upper bound on the number of positive and negative roots of a polynomial.	Descartes' rule of **signs**
2	Find the number of positive roots of the function [read slowly] x to the fifth, minus $2x$ to the fourth, minus $4x$ cubed, minus x squared, minus $3x$, minus 2.	**one** positive root
3	Give the largest possible number of negative roots of a polynomial of degree 10 whose coefficients are all positive.	**ten** negative roots

Question #9: Literature

10 points per part

	Answer the following about Americans traveling to Mexico:	
1	This American author of *An Occurrence at Owl Creek Bridge* traveled to Mexico during its revolution and never returned. Carlos Fuentes fictionalized his last days in *The Old Gringo*.	Ambrose (Gwinnett) **Bierce**
2	Llewelyn Moss crosses the border into Mexico after a gunfight with his hunter Anton Chigurh in this Cormac McCarthy novel.	***No Country for Old Men***
3	This author's story "Flowering Judas" is about the American schoolteacher Laura working in a Mexico while being pursued by the revolutionary Braggioni [brah-JOH-nee].	Katherine Anne **Porter**

Question #10: Literature

10 points per part

	This man's character Pnin [p'-NIN] mirrored his experiences teaching Russian at Wellesley College.	
1	Name this author best known for his novel about Humbert Humbert and Dolores Haze, *Lolita*.	Vladimir (Vladimirovich) **Nabokov** [nah-BOH-kuf]
2	Nabokov wrote about his synesthesia and love of butterflies in this autobiography. He also included a chapter on his Swiss governess, Mademoiselle O.	***Speak, Memory***
3	This author used a chess problem from *Speak, Memory* in his novel *The Yiddish Policemen's Union*. This man won the Pulitzer Prize for Fiction for *The Amazing Adventures of Kavalier & Clay*.	Michael **Chabon** [SHAY-bahn]

Question #11: Social Studies

10 points per part

	This person came to power during the Spanish Civil War and maintained some national power until his death in 1975.	
1	Name this leader of Spain who received support from Adolf Hitler and Benito Mussolini.	Francisco **Franco** (y Bahamonde)
2	Before the Spanish Civil War, Franco put down a miners' strike in this province in Northern Spain.	**Asturias** [ahss-TOO-ree-ahss]
3	This party of royalists, whose name comes from the younger brother of Ferdinand VII [7], supported Franco.	**Carlist**s or **Carlism**

Question #12: Social Studies

10 points per part

	This late-14th- and early-15th-century ruler was born in Transoxania ["trans-ox"-AY-nee-uh] in what is now Uzbekistan.	
1	Name this violent ruler who took over Persia, Moscow, and Delhi.	**Tamerlane** or (Emir) **Timur** the Lame [or **Tarmashirin** Khan Barlas or **Timur** Beg Gurkhani or **Timur** (i) Leng]
2	Timur originally supported this leader of the Golden Horde, but dropped his support when this person attacked Azerbaijan [AZ-ur-by-ZHAHN].	Khan **Tokhtamysh** [tohk-tah-mish]
3	Timur ruled from, and is buried, in this city.	**Samarkand**(, Uzbekistan)

Question #13: Science

10 points per part

	If there is too much of this type of substance and it is a gas, there is effervescence [ef-ur-VESS-inss]. If there is too much and it is a solid, a precipitate [pree-SIP-ih-tayt] forms.	
1	Give this term for a substance that is dissolved in a solvent to create a solution.	**solute** [SAWL-yoot]
2	This law states that the amount of gas that can dissolve is proportional to its partial pressure.	**Henry**'s law
3	Sieverts' [SEE-vurt's] law is used to calculate the solubility of these gases in metals. At standard temperature and pressure, five elements form this kind of gas.	**di*atomic** gases

Question #14: Science

10 points per part

	These four values describe the state of an electron within an atomic orbital.	
1	Give the collective name for these numbers, the last of which is spin and has a value of plus or minus $\frac{1}{2}$.	**quantum** numbers
2	The second quantum number is sometimes called the azimuthal [az-ih-MOO-thul] quantum number, and it has a minimum value of 0. What letter refers to an orbital in which the second quantum number is 3?	*f* orbital
3	This American scientist discovered the ultraviolet spectral series named after him, in which the principal quantum number changes from an excited state down to 1.	Theodore **Lyman** ["LIE"-mun] [accept **Lyman** series]

Question #15: Fine Arts

10 points

This composer's second symphony begins with a solemn C-minor movement and contains a fifth movement labeled "In the tempo of the scherzo ["SCARE"-tsoh]" that he called the "march of the dead". The second part of this composer's eighth symphony contains a "Mater Gloriosa" [MAH-tair glor-ee-OH-sah] section, and its two parts are *Veni, creator spiritus* [VAY-nee kray-AH-tor SPEER-ee-tooss] and the closing of Goethe's [GRR-tuh'z] *Faust*. This person conducted the premier of his eighth symphony in 1910, eight months before he died. Name this Austrian composer of the "Resurrection" Symphony and the "Symphony of a Thousand".	Gustav **Mahler**

Question #16: Literature

10 points

There is a temple dedicated to this god at Pushkar, where he killed the demon Vajranabha [vahj-rah-NAH-bah]. This god became obsessed with a woman he created named Shatarupa [shah-tah-ROO-pah], which is one reason why there are few temples honoring him. Depending on the source, this god was either born from a golden egg or from a lotus that came from Vishnu's navel. This god recites the Vedas [VAY-duz], and his four heads allow him to recite the four Vedas simultaneously. Name this god of creation that was in the Trimurti [try-MUR-tee] with Vishnu and Shiva.	**Brahma**

Question #17: Science

10 points

For predicting the existence of, and then discovering, this type of particle, Nobel Prizes were given to Hideki Yukawa and Cecil Frank Powell. When these particles are flavorless and electrically neutral, they are classified as quarkonium [kwark-OH-nee-um]. Unlike gluons ["GLUE"-ahnz] that hold quarks together, these particles bind protons and neutrons in atomic nuclei, particularly the examples of these particles named for the Greek letters rho, omega, and pi. In 1974, two labs announced the discovery of a charm quark in one of these particles, which is now called the J/psi. Name these bosons [BOH-zahnz] that consist of a quark and an anti*quark.	**meson**s [accept more specific answers; prompt on **pion**s]

Question #18: Mathematics

10 points

One of these methods used for products of real and complex numbers is named for Gustav Dirichlet [DEER-ik-let]. Another one used for products is named for Niels Abel [neelz AH-bul]. When working with Fourier [fur-yay] analysis, one of these methods named for Ulisse Dini [oo-LEE-seh DEE-nee] is used. Calculus students learn two of these methods that use the limit, as n approaches infinity, of either a-sub-n-plus-1 over a-sub-n, or the nth root of a-sub-n. Those are called the "ratio" and "root" techniques of this type. There also methods of this type that use integrals and comparisons. Give this term for a method to determine whether an infinite series has a finite limit.	**convergence test**s [accept **divergence test**s or any reasonable answer suggesting a **test** for **convergence** or **divergence** of a(n infinite) series; prompt on series **test**]

Question #19: Social Studies

10 points

This person was criticized in the Christopher Hitchens documentary *Hell's Angel*. At the 40th anniversary of the United Nations, this person announced the opening of Gift of Love, a home to treat HIV-positive patients, and denounced abortion. This person changed careers in 1946 upon hearing the "call within the call" on a train to Darjeeling. This person was canonized in 2016, which was 19 years after her death. Name this Nobel Peace Prize winner who founded Missionaries of Charity, a Catholic organization serving poor people in Calcutta, India.	Mother **Teresa** [or Saint **Teresa** of Calcutta or Anjezë Gonxhe **Bojaxhiu**]

Question #20: Literature

10 points

In this play, a story is told about a fight between neighbors over pigs bathing in an ice pond. A foghorn in this play is compared to the snoring of the patriarch, whose family steals his booze by pouring in equal amounts of water. The matriarch in this play once tried to throw herself off a dock in her nightdress. One character in this play is thought to have malaria that turns out to be consumption, and his mother can no longer play piano due to rheumatism. The family in this play comprises Jamie, Edmund, the actor James, and Mary, who is a morphine addict. Name this play about the Tyrone family written by Eugene O'Neill.	***Long Day's Journey into Night***

Question #21: Social Studies

10 points per part

	For the type of economic good named for this person, demand increases when the price increases.	
1	Name this economist who described conspicuous consumption in his book *The Theory of the Leisure Class.*	Thorstein **Veblen** [THOR-styn VEB-lun]
2	Veblen used this two-word phrase to describe efforts to achieve somebody else's financial status. In a chapter whose title is this phrase, Veblen says the earliest form of ownership is the ownership of women by men.	**pecuniary** [pek-YOO-nee-air-ee] **emulation**
3	Veblen followed up *The Theory of the Leisure Class* with this similarly named 1904 book that examined using the profit motive to drive industrial activity.	*The **Theory of Business Enterprise***

Question #22: Social Studies

10 points per part

	This economic school of thought emphasizes price stability and interest rates.	
1	Name this economic school supported by the Shadow Open Market Committee and based in large part on the work of Milton Friedman and his colleagues at the University of Chicago.	**monetarism** or **monetarist** school [prompt on **freshwater**]
2	Milton Friedman and this economist co-wrote *A Monetary History of the United States, 1867–1960* to demonstrate the importance of monetary policy.	Anna **Jacobson Schwartz** [accept either underlined name]
3	Monetarists generally believe that this quantity is stable. This quantity is multiplied by money supply in the quantity theory of money and is a measure of how often money is used.	**velocity** of money

Question #23: Literature

10 points per part

	This character wields Ruyi Jingu Bang, a size-changing staff that he stores behind his ear.	
1	Identify this trickster who accompanies Xuanzang [shoo-AHN-zahng], Sandy, and Pigsy on a voyage to Vulture Peak to retrieve Buddhist texts.	**Sun Wukong** or the **Monkey King** [prompt on partial answer]
2	Sun Wukong appears in this 16th-century Chinese novel about a trip to India.	***Journey to the West*** or ***Xi You Ji***
3	In *Journey to the West*, Sun Wukong gained this quality by eating peaches. In his namesake epic, Gilgamesh sought Utnapishtim [oot-nuh-PISH-tim] to gain this quality after the death of his friend Enkidu [EN-kee-doo].	**immortal**ity [accept any reasonable answer indicating the inability to die]

Question #24: Literature

10 points per part

	This writer repeated "take pity on my long misery!" in his poem "The Litanies of Satan".	
1	Name this French symbolist poet who wrote the collection *Les Fleurs du Mal* [leh flyoor doo mahl].	Charles (Pierre) **Baudelaire** [sharl boh-deh-lair]
2	The first section of *Les Fleurs du Mal* is named "[this body part] and Ideal". Baudelaire used this word to signify ennui [ahn-wee].	**spleen** [accept "**Spleen** and Ideal"]
3	A poem in *Les Fleurs du Mal* compares poets to these animals who drag their "great white wings" "like oars" when pulled onto a ship.	**albatross**es [prompt on **bird**s]

Question #25: Science

10 points per part

	The realization that this principle didn't apply in quantum mechanics led Albert Einstein to complain "God does not throw dice."	
1	Name this idea that knowing all initial conditions and physical laws can lead to perfect predictions of the future.	**determinism** or **determinist**ic universe [prompt on **causality**]
2	Causality and determinism were the subject of this Danish physicist's debates with Einstein.	Niels (Henrik David) **Bohr** [neelz "bohr"]
3	This branch of mathematics studies deterministic systems in which behavior is very sensitive to initial conditions, as in the butterfly effect.	**chaos** theory

Question #26: Science

10 points per part

	Near the surface of the Earth, this value is about 11 kilometers per second.	
1	Give this term for the rate of motion necessary to leave the effective gravitational influence of an object.	**escape velocity** or **escape speed**
2	The escape speed is the speed at which the sum of these *two* types of energy equals 0.	**kinetic** energy and gravitational **potential** energy [either order; prompt on **mechanical** energy]
3	If an object escapes from a massive stationary object at exactly the escape speed, its trajectory must either be straight or this shape.	**parabola** [prompt on **conic** section]

Question #27: Fine Arts

10 points per part

	This painting was made shortly after the artist witnessed World War I.	
1	Name this painting of a line of soldiers walking along a duckboard. Each soldier holds the person in front of him because an attack has blinded them.	***Gassed***
2	This artist painted *Gassed*. Earlier, he caused a scandal with his *Portrait of Madame X*.	John Singer **Sargent**
3	This Sargent painting shows two girls lighting paper lanterns.	***Carnation, Lily, Lily, Rose***

Question #28: Fine Arts

10 points per part

	The most famous painting by this artist shows a seated woman facing sideways with her feet on a small wooden platform.	
1	Name this painter who depicted his mother in *Arrangement in Grey and Black, Number One*.	James (Abbott McNeill) **Whistler**
2	Whistler often used musical terms to name his paintings; he used this term for paintings set at night.	**nocturne**s
3	Whistler's nocturnes inspired by the Cremorne Gardens were both named for these two colors. The two paintings are also known as *The Falling Rocket* and *The Firewheel*.	**black** and **gold** [either order]

Question #29: Mathematics

10 points

The genus-2 surface is sometimes called the "double" version of this shape. This shape can be generated in cylindrical coordinates by the equation "a constant minus r, quantity squared, plus z squared [pause] equals another constant squared". The "horn" version of this type of shape does not have a hole, but the name of this shape on its own almost always means the "ring" version, which does have a hole. The volume and surface area of this figure can be found by starting with a circle and using Pappus' theorem, because this shape is generated by a circle moving in a circular path. Name this shape that looks like an inner tube or a doughnut.	**torus** [or **toroid**]

Question #30: Literature

10 points

In this novel, Priscilla says "There's nothing kills a man so soon as having nobody to find fault with but himself." Later in this novel, Priscilla's sister Nancy marries Dunsey's brother. After Dunsey leaves town, his skeleton is found along with gold belonging to this novel's title character, who had been framed for theft at Lantern Yard. After the death of Molly Farren, who is secretly married to Godfrey Cass, the title character of this novel raises their daughter Eppie. Name this George Eliot novel subtitled *The Weaver of Raveloe.*	***Silas Marner****: The Weaver of Raveloe*

Question #31: Social Studies

10 points

In an attempt to slow down this event, people drove past City Hall waving white flags and an American flag and then donated blood to the Red Cross. Many people in this incident had ducktail haircuts and were called *pachucos* [pah-CHOO-kohss]. This incident occurred a few months after several people were sentenced to San Quentin Prison for the death of José Gallardo Díaz [hoh-ZAY "guy-YARD-oh" DEE-ahz], which was nicknamed "the Sleepy Lagoon murder". Name these 1943 attacks in and around Los Angeles by servicemen against immigrants, named for the outfits many of the immigrants wore.	**Zoot Suit** Riots

Question #32: Science

10 points

Cells pass through a column containing this polysaccharide [pah-lee-"SACK-uh-ride"] after going through inteins [IN-tee-inz] in a form of affinity chromatography. This substance and a substance made by combining it with sodium hydroxide are made from glucosamine ["glue"-KOH-suh-meen], and recent studies claim they can help repair injuries. This second-most abundant polysaccharide after cellulose often exists with resilin [reh-ZIL-in]. Cephalopods [SEF-uh-loh-"pods"] such as squids have beaks made of this substance. Name this polymer found in arthropod [ARTH-roh-"pod"] exo*skeletons and fungus cell walls.	**chitin** [KY-tin]

Extra Question #1: Mathematics

10 points

This adjective describes a ring with exactly one maximal ideal. A graph property is this type of property if it applies to every vertex adjacent to a given vertex. This word is synonymous with "relative" when it describes extrema on graphs, which exist whenever a continuous function's derivative changes sign; in that context, this word contrasts with "global" because this type of extremum is only extreme within a neighborhood. Name this descriptor of properties that apply in the area immediately around a point.	<u>**local**</u>

Extra Question #2: Fine Arts

10 points

This painter's only solo exhibition was shut down by police because a nude was visible through the gallery window. The physical condition pseudo-goitre [GOY-tur] is named for this artist because of the way he painted necks in works like *Portrait of Juan Gris* and his *Portrait of Lunia Czechovska [LOO-nee-ah "check"-OHV-skah]*. This painter's remaining works are now extremely valuable, including his limestone sculpture of a head titled *Tête* [tet] and his reclining nude titled *Nu Couché* [noo kohsh]. Name this early-20th-century Italian artist.	Amedeo (Clemente) **Modigliani** [ah-meh-deh-oh moh-deel-YAH-nee]

Extra Question #3: Literature

10 points

In one play set in this country, a fisherman finds a ring that helps a king recognize the pregnant mother of his child. Another author from this country wrote a play about a woman organizing forces against a king in the gold mining town Yaksha. A poet from this country wrote a work concluding with the repetition of "jaya he" [jah-yah heh] and also wrote a poem beginning "Thou hast made me endless, such is thy pleasure" to open a collection whose title is translated as *Song Offerings.* Name this home country of Kalidasa [kah-lee-DAH-sah] and Rabindranath Tagore [ruh-BIN-druh-naht tag-OR], who wrote in his native Bengali language.	**India** [accept Republic of **India** or **Bharat**(iya) Ganarajya]

Extra Question #4: Science

10 points

Magnetized materials exhibit the anomalous form of this effect, which is also known as the extraordinary type because it is so large. Metals and semiconductors have been found to exhibit the inverse-spin form of this effect, which is able to convert microwaves into electric current. The coefficient named for this effect equals electric field strength divided by the quantity "current density times magnetic field strength". Name this effect in which a voltage difference is induced across a current-carrying conductor in a magnetic field.	**Hall** effect

Extra Question #5: Social Studies

10 points

Much of the knowledge of this leader comes from the diary of Henry Francis Fynn and a biography by E. A. Ritter. One of this leader's first victories was the Battle of Gqokli [TOHK-lee] Hill, where he defeated the followers of Zwide [z'WID-eh], the Ndwandwe ["end-WAND"-weh]. This person aided the assassination of his half-brother Sigujana [sig-oo-JAN-ah] to gain power with the help of Dingiswayo [din-giss-WY-oh]. This leader is credited for developing the bull horn formation. This person lived in what is now South Africa in the early 19th century. Name this leader of the Zulus.	**Shaka** Zulu [or **Shaka** kaSenzangakhona; prompt on either non-underlined name]

Extra Question #6: Literature

10 points per part

	This novel published in 1978 is about a playwright and director who buys a house called Shruff End and moves there to write his memoir.	
1	Name this novel in which Charles Arrowby becomes obsessed with Mary Hartley Fitch, who had long ago been his girlfriend.	***The Sea, the Sea***
2	This author wrote *The Sea, the Sea*.	Iris **Murdoch**
3	Lizzie, one of the characters in *The Sea, the Sea*, always wanted to perform as this male character who is often portrayed by women because their voices are more appropriate for a boy who never grows up.	**Peter Pan** [prompt on partial answers]

Extra Question #7: Literature

10 points per part

	This author's first novel is about the history professor James Dixon, who passes out during a lecture.	
1	Name this author of *Lucky Jim*. His son Martin wrote *London Fields*.	Kingsley (William) **Amis** [AY-miss]
2	Kingsley Amis is one of several authors to write authorized books about this British spy created by Ian Fleming.	(Commander) James **Bond** [prompt on **007**]
3	Martin Amis wrote this reverse-chronology novel set in the United States and the Auschwitz ["OW"-shvits] concentration camp.	***Time's Arrow***

Extra Question #8: Mathematics

10 points per part

	Many shapes can be defined as the set of points fulfilling certain criteria.	
1	Given a line segment, the set of all points that are equidistant from the two endpoints of the segment forms this line relative to the segment.	**perpendicular bisector** [prompt on partial answer]
2	This shape is the set of all points with a fixed ratio of distances between two points.	**circle**
3	Find the center of a circle if all of its points are twice as far from the point (-3,0) as from (3,0). The x-coordinate is positive.	**(5, 0)** [or $x = 5$ and $y = 0$]

Extra Question #9: Mathematics

10 points per part

	The name of this 17th-century Italian mathematician is used for a segment from a vertex of a triangle to any point on the opposite side.	
1	Name this mathematician. The theorem named for him describes the ratios of lengths when three such segments intersect.	Giovanni **Ceva** [CHAY-vah] or **Ceva**'s theorem
2	According to Ceva's theorem, when three cevians [CHEV-ee-unz] intersect, they divide the sides into six segments. If you put the lengths of those segments into ratios in a certain way, their product equals this number.	**1**
3	This theorem named after an ancient mathematician looks similar to Ceva's theorem, but it is about a transversal rather than three cevians, and the product equals −1.	**Menelaus**' theorem