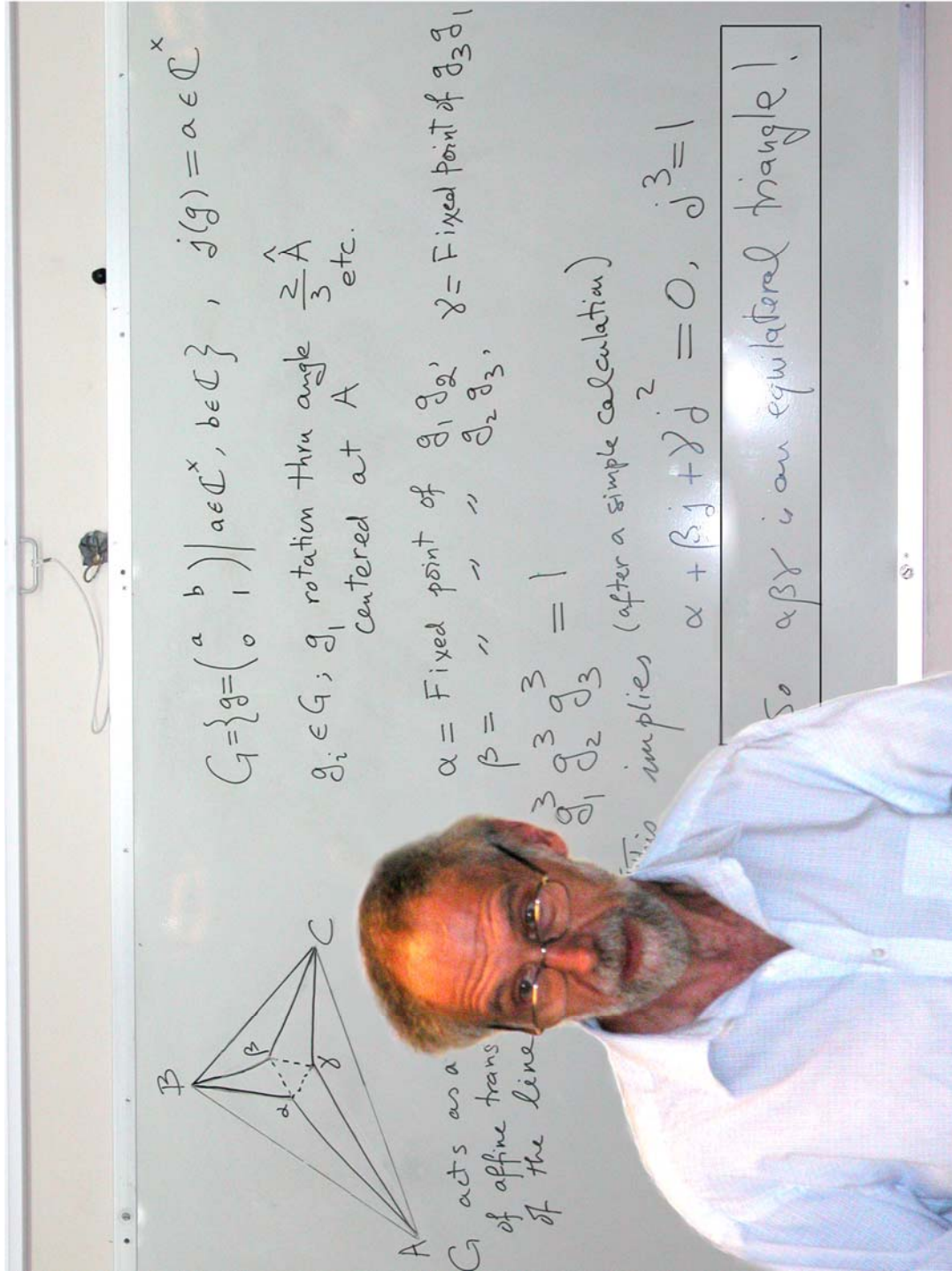


A Picture and a Puzzle



Alain Connes' technical prowess can be intimidating even to the experienced mathematician. But here he is explaining a beautiful theorem of plane geometry using elementary group theory in a way that will be fascinating even to the beginner. What theorem is it? Can you fill in the details?

E-mail your answer to ipmic@ipm.ir

There may be a prize!

TOM LEHRER SONG

The Professor's Song (1974)

If you give me your attention, I will tell you what I am.
 I'm a brilliant math'matician - also something of a ham.
 I have tried for numerous degrees, in fact I've one of each;
 Of course that makes me eminently qualified to teach.
 I understand the subject matter thoroughly, it's true,
 And I can't see why it isn't all as obvious to **you**.
 Each lecture is a masterpiece, meticulously planned,
 Yet everybody tells me that I'm hard to understand,
 And I can't think why.

My diagrams are models of true art, you must agree,
 And my handwriting is famous for its legibility.
 Take a word like "minimum" (to choose a random word),
 {This was performed at a blackboard, and the professor wrote:
 \\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/\\\/}
 For anyone to say he cannot read that, is absurd.
 The anecdotes I tell get more amusing every year,
 Though frankly, what they go to prove is sometimes less than clear,
 And all my explanations are quite lucid, I am sure,
 Yet everybody tells me that my lectures are obscure,
 And I can't think why.

Consider, for example, just the force of gravity:
 It's inversely proportional to something - let me see -
 It's r^3 - no, r^2 - no, it's just r , I'll bet -
 The sign in front is plus - or is it minus, I forget -
 Well, anyway, there **is** a force, of that there is no doubt.
 All these formulas are trivial if you only think them out.
 Yet students tell me, "I have memorized the whole year through
 Ev'rything you've told us, but the problems I can't do."
 And I can't think why!



? A Puzzle ?

Surprisingly few people give the correct solution and reasoning for the following simple puzzle:

In a game show the winner is given the choice of one of three boxes. He knows that only one box contains a real prize and the other two are empty. He makes his choice. The master of the show opens one of the other two boxes and notes that it is empty. The player is now given the choice to switch to the other unopened box. Should he/she change his/her choice of the box or it makes no difference (probabilistically)?

Email your answer including the reasoning to

ipmic@ipm.ir

There may be a prize!

Abguineh Museum:

Glassware and Ceramic Museum of Iran



The Abguineh museum was the residence and office of Iran's former Prime Minister Ahmad Qavam until 1951. The Egyptian Embassy took over the building and turned it over to the Iranian Commercial Bank later. Finally in 1976, the building was designated for a museum and a group of Iranian and Austrian architects refurbished it for this purpose. The museum opened in 1989. The remodeling of the building includes brickworks of the exterior façade, interior plaster cutout, mirror works and inlays. The museum is comprised of several display galleries, a workshop and a library. Art works and handicrafts exhibited in the museum include three collections of porcelains, glassworks and crystals.



The Porcelain Collection

This collection covers almost the entire history porcelain making in Iran. Major centers of porcelain making in Iran were Kashan, Ray, Qazvin, Gorgan and Neishabour.



The evolution of the production techniques and the art of porcelain design can be discerned from the objects on display.

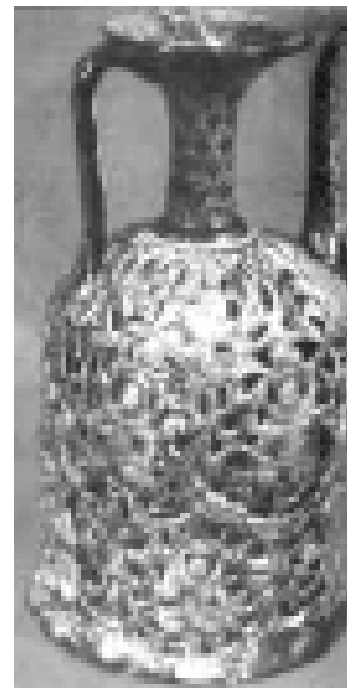
The development of simple and glazed porcelains and the art of decorating them with calligraphic designs, paintings of plants, animals and geometrical designs over and under the layer of the glaze are exhibited in a manner that would be appreciated by the non-connoisseur. The images and the calligraphy on some of the objects reflect ancient proverbs, legends and folk tales.

Glass works and Crystals Galleries

The oldest glass works on display in this collection date back to the first or the second millennium BCE. Glassware production tools such as sand molds, cutting and pressing equipment, and painting methods on glass are also on exhibit. On the ground floor, there are also many relatively recent samples that were made in the eighteenth and nineteenth centuries. Most of these were cut in Europe. The works of some contemporary artists are also on display.

The Library and the Workshop

A specialized library is located on the northwestern corner of the museum courtyard. The library has a collection of about 4,000 books on the relevant aspects of archeology and art history. Instructors in the workshop describe the techniques for making glassware and porcelains, the cutting of crystals, glazing and painting.



Albaloo (Black Cherry) Polo

4 Servings

- long-grain or basmati rice, 500 grams
- chicken, one medium-size
- black cherry (or cherry), 1kg
- sugar, 1 kg
- onions, 2 medium
- cooking oil
- salt
- black pepper



Wash black cherries (or cherries) and remove the stones. Add sugar. If you are using cherries rather than black (sour) cherries, less sugar can be used. Bring to boil. Cook over medium heat for 15-20 minutes. Remove from heat and allow cooling down completely. Remove the extra syrup.

Peel and thinly slice onions. Wash chicken. Add onions, salt, black pepper, and a glass of hot water, and cook over medium heat for 20-25 minutes. Allow to cool, and then remove bones. Filter the chicken juice and save for later use.

Follow instructions for preparing Polow until rice is rinsed. Pour 2 spoonfuls of cooking oil and half a glass of hot water in a pot. Follow with half of the rinsed rice and the black cherries (or cherries), and mix well. Cover with half of remaining rice. Spread chicken over the rice, and cover with the remaining rice. Shape into a cone. Mix 2-3 spoonfuls of cooking oil with black cherry (or cherry) syrup and chicken juice. Pour the mix over rice. Cover the pot and cook in an oven or over low heat for about one hour.

When cooked, remove some of the rice and mix with saffron dissolved in a bit of hot water. When serving, spread saffron-rice over Albaloo-Polow

Polow (chelow)

4 Servings

- 500 grams long-grain rice or basmati
- 6 tablespoons cooking oil
- 1 tablespoon salt

The preparation of polow (chelow) is more elaborate than kateh and results in a delicious non-sticky rice. It is normally served with kababs or any of the main Persian dishes.

Wash rice twice and soak in salted warm water for 2-3 hours, then drain the water.

Pour water in a large pan until it is half-full and bring it to a boil.

Add rice and a spoonful of salt and continue boiling until rice slightly softens.

Pour rice into a drain and wash it with slightly warm water.

Pour 3 spoonfuls of cooking oil into the pan and add rice. Pour 3 more spoonfuls of oil over rice.

Cover the pan and cook over low heat for about half an hour. If cooking time is increased, a delicious crispy layer of rice (called ta-dig) will form at the bottom of the pan.





