Bulletin FSM

بسم الله الرحمن الرحيم

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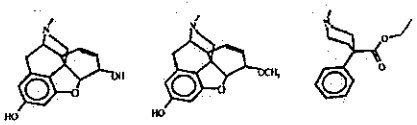
In this Issue :

TOP 5 REASONS WHY STUDENTS FAIL CHEMISTRY

Are you taking a chemistry class? Are you worried you might not pass? Chemistry is a subject many students prefer to avoid, even if they have an interest in science, because of its reputation for lowering grade point averages. However, it isn't as bad as it seems, especially if you avoid these common mistakes.

1) Procrastinating
Never do today what you can put off until tomorrow, right? Wrong! The first few days in a chemistry class may be very easy and could lull you into a false sense of security. Don't put off doing homework or studying until halfway through the class. Mastering chemistry requires you to build concept upon concept. If you miss the basics, you'll get yourself into trouble. Pace yourself. Set aside a small segment of time each day for chemistry. It will help you to gain long-term mastery. Don't cram.



morphine codeine demerol

Kepada,
semua siswa-siswi

SELAMAT DATANG
...
SELAMAT KEMBALI
...
SELAMAT BERKULIAH
...
SELAMAT BERJAYA

2) Insufficient Math Preparation
Don't go into chemistry until you understand the basics of algebra. Geometry helps, too. You will need to be able to perform unit conversions. Expect to work chemistry problems on a daily basis. Don't rely too much on a calculator. Chemistry and physics use math as an essential tool.

3) Not Getting or Reading the Text
Yes, there are classes in which the text is optional or completely useless. This isn't one of those classes. Get the text. Read it! Ditto for any required lab manuals. Even if the lectures are fantastic, you'll need the book for the homework assignments. A study guide may be of limited use, but the basic text is a must-have.

4) Psyching Yourself Out
I think I can, I think I can... you have to have a positive attitude toward chemistry. If you truly believe you will fail you may be setting yourself up for a self-fulfilling prophecy. If you have prepared yourself for the class, you have to believe that you can be successful. Also, it's easier to study a topic you like than one you hate. Don't hate chemistry. Make your peace with it and master it.

5) Not Doing Your Own Work
Study guides and books with worked answers in the back are great, right? Yes, but only if you use them for help and not as an easy way to get your homework done. Don't let a book or classmates do your work for you. They won't be available during the tests, which will count for a big portion of your grade.

Reference:
http://chemistry.about.com/od/homeworkhelp/tp/blfailchem.htm

MATH PUZZLES
* number block *

PUZZLE 1 :

				6
3		9		16
	0		3	11
3		2		8
4	9	6	8	27
18	15	17	12	13

Try to fill in the missing numbers :

The missing numbers are integers between 0 to 9.

The numbers in each row add up to totals to the right.

The numbers in each column add up to the totals along the bottom.

The diagonal lines also add up the totals to the right.

PUZZLE 2 :

	-		X		-19
X		X		X	
	-		-		-13
+		+		+	
	-		+		2
14		61		28	

Try to fill in the missing number :

Use the numbers 1 through 9 to complete the equation.

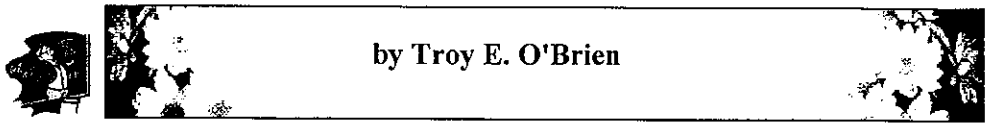
Each number is used once.

Each row and column is a math equation.

Remember that multiplication and division are performed before addition and subtraction.

Answers on page 4

Guidelines for Success in Mathematics



by Troy E. O'Brien

Take good notes and review them often. A habit that has proven to be helpful for many people is to recopy your notes into another notebook after class. This serves the purpose of you reviewing your notes and ensures you have a legible and organized copy to review from later on in the course. Make sure to plan and utilize enough time to study and do homework. The rule of thumb is to plan for eight hours of homework a week, and some people need more time.

Homework is the only way that you will really understand mathematics. Use separate notebooks for homework and notes. Also, label all of your homework and keep it organized. Your homework is an excellent source to study from before a test and review before a class session. If you do homework on scratch paper, label the problems and staple the pages together so you don't lose any problems.

When doing homework –

Don't conserve paper! Many students try to get as many problems as possible onto one page. This style of homework makes it hard to find mistakes, cause mistakes, reduces the chances for a tutor to find your troubles with a problem, and makes your homework almost useless as a study source.

When seeing a tutor –

have your problems ready and be as specific as possible. Their job is not to teach you the whole lessen, but rather to assist you with difficulties and missing mental connections with how to solve the problems.

Go to them early. People who go to a tutor at the last minute as usually not full happy with the help they get, unless it is for a specific problem. Sometimes, tutors might need a day or two to get extra material for you; not all of their resources are always on hand.

Try to plan your time in the tutorial services wisely. There are regularly scheduled classes in the lab and glut times. The instructors in the tutorial services can help you in finding better times to show up for your needs. They also know which instructors are better for your needs and will help you connect with them.

Tutoring is offered free of charge to Davenport students. It is offered on a show up and get help basis. This means that you will need to find a time when the lab is less busy to get more one on one tutoring. At this time, there is no scheduling for a personal tutor. You are also expected to show other students the same courtesies that you expect to receive from them. The majority of the students assisted are happy with the help they receive.

Don't marathon study. Long sessions usually cause problems like frustrations, low retention of the material, and ideas tend to blur together. Make sure you take a fifteen minute break every two hours. You will find the best results occur when you study an hour or two every day. Use breaks in your daily schedule as much as possible by reviewing notes on three by five cards.

Don't jump right to the problems - review first. This reduces your frustrations with doing the homework.

Write mathematical ideas out in simple English in your own words. This will help you remember the main ideas.

Study in a surrounding that is as free from distractions as possible. Also, keeping to regular study times as much as possible. True study habits make your body and mind waist less time in preparing to study.

Study with a friend - it works. The process of sharing information with another person gives you a higher retention of the material.

Study in the tutorial services when a tutor is available if your schedule permits. Outside of getting immediate help if you run into problems, some people find it relaxing to know there is assistance near by. A relaxed mind studies better.

Get help when you need it. Procrastination is the worst thing to do when studying mathematics. While the problem is fresh in your mind is the best time to get help. Also, getting the help early keeps you from getting into wrong processes for solving problems. Most of mathematics is getting into good habits and proper procedures.

Keep up with the class. Getting behind will confuse you and makes it harder to understand the new material. Show up to class as much as possible. Instructors try to show you the best way to learn the information. The interactiveness of the classroom reinforces your memory of how to work the problems. Don't be shy in the class room - ask questions. Instructors cannot read minds; you have to let them know what questions you have. That's where interactive comes into the classroom.

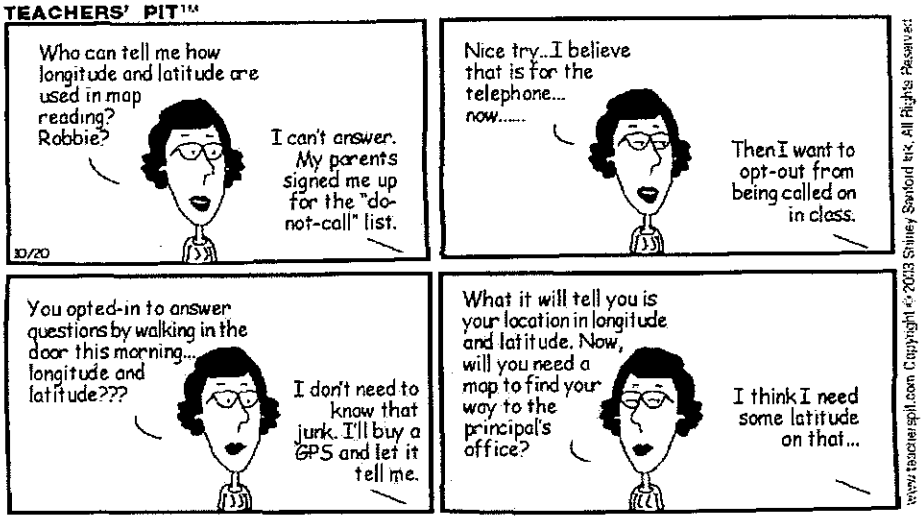
When you ask a question, don't be vague. Instead of asking "I don't understand the problem," you should ask "I don't understand the third step." This allows the instructor to be more focus with their explanation and you not to become bored with the steps you already know.

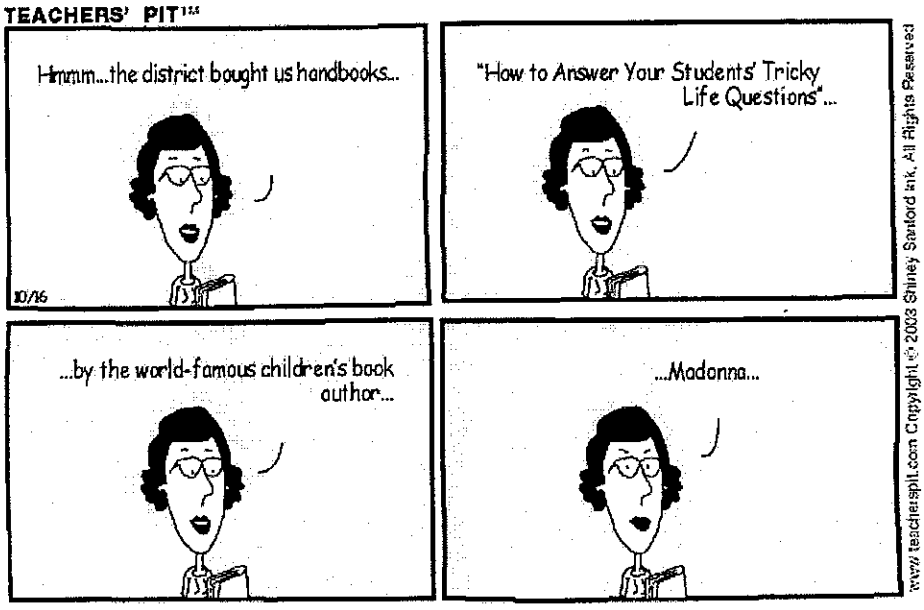
Take the time to step back from the problem and see the ideas. The old saying is true - "You can't see the forest from the trees." If you look too close at a problem, you won't see the process.

If you have math anxiety, see a tutor for help. There is an amazing amount research that has been done to combat math anxiety. No one should let math anxiety get the best of them. Most math tutors know how to combat it, and the tutorial services has a lot of material on how to overcome math anxiety. Just keep in mind that no one gets it over night, and it takes some time to beat it.

Watch the math programs on PBS and learning channels. They are written by experts to help viewers. Those programs are an excellent source of other ways to see how to solve problems.

Something to keep in mind. Math instructors tend to make mathematics look easy. They have done their homework when they were in school. Long hours of homework was how they formed their skills. Everyone starts with basics and works their way up since no one is born knowing mathematics. After you have done enough math work, you too will make it look easy when showing it to someone else. Like everything that is important to know - math takes time and practice.





PUZZLE 1 :

				6
3	4	9	0	16
8	0	0	3	11
3	2	2	1	8
4	9	6	8	27
18	15	17	12	13

PUZZLE 2:

2	-	7	X	3	-19
X		X		X	
4	-	8	-	9	-13
+		+		+	
6	-	5	+	1	2
14		61		28	

We Owe Them...

Badi'uzzaman Sa'id Nursi

Tokoh Mujahid dan Mujadid Islam Abad ke 14H

Setelah enam ratus tahun bertapak sebagai sebuah kerajaan agung, sejarah menyaksikan detik detik kemuncak kelemahan Kerajaan Uthmaniyah. Sebenarnya detik yang berlaku disekitar awal abad ke 14H itu, diancam oleh pelbagai serangan dalaman dan luaran secara terancang.

Detik tanggal tahun 1924, merupakan sejarah hitam buat Kerajaan Uthmaniyah apabila Kamal Ataturk menguasai Turki. Sistem Khalifah yang menjadi mercu tanda kekukuhan negara Islam, mansuh akibat pengaruh Barat pimpinannya.

Pada ketika itulah muncul tokoh ilmuwan terulung dalam sejarah Turki iaitu Badi'uzzaman Sa'id Nursi. Beliau telah mengorbankan seluruh kehidupannya demi perjuangan untuk mengembalikan keagungan Islam yang musnah itu.

Ketika itu, agama dilihat sebagai faktor kemunduran dan kelemahan umat. Fahaman sekularisme, materialisme, dan ateisme pula diterima baik oleh masyarakat tempatan atas nama kebebasan dan kemajuan.

Badi'uzzaman atau nama sebenar Sa'id bin Mirza dilahirkan pada tahun 1876 (1294H) di Nurs, sebuah perkampungan kecil di daerah Khizan, Turki. Beliau juga dikenali sebagai Sa'id al-Nursi yang merujuk kepada tempat kelahirannya.

Nursi dilahirkan dalam sebuah keluarga petani yang hidup serba sederhana. Ibu dan bapanya berketurunan Kurdis dan mereka dikatakan berasal daripada salasilah keturunan *Ahl* dl-Bayt. Nursi pernah diberi gelaran Badi'azzaman (Keunggulan Zaman) oleh gurunya, Syeikh Fathu'llah. Walau bagaimanapun Nursi menolak kerana merasakan dirinya belum layak menerima gelaran itu.

Sejak kecil lagi Nursi telah memperlihatkan minatnya untuk menimba ilmu pengetahuan. Beliau sangat gemar menghadiri majlis perbincangan ilmu antara ulama yang sering diadakan di rumah ayahnya. Suasana keilmuan ini memberikan pengaruh yang besar pada jiwa dan pemikiran Nursi. Minatnya itu menyuburkan pemikiran analisis-kritis, dialog, dan perdebatan.

Nursi mula merantau ketika umurnya sembilan tahun dalam usahanya untuk menimba ilmu pengetahuan. Beliau telah berguru dengan ramai alim ulama termasuk Syeikh Muhammad al-Jalali di Madrasah *Bayazid* bersempadan Iran. Di bawah bimbingan Syeikh Muhammad al-Jalali, Nursi telah mempelajari dan menguasai kitab-kitab muktabar seperti *Jam'* al-Jawami, *Sharh al-M.awaqif,* dan *Ibn Hajar.*

Disinilah bermulanya proses awal perkembangan dan pembentukan pemikiran Nursi. Peluang di peringkat ini amat berharga pada Nursi, lalu sentiasa meneruskan pengajian dengan beberapa orang tokoh ilmuwan terkenal. Keterampilan beliau mula menampakkan ketokohan sebagai seorang ulama, lalu dikenali waktu itu sebagai ulama muda yang hebat. Gabenor Bitlis, Umar Basha sangat mencintai ilmu dan memuliakan ulama. Oleh sebab itu beliau mempelawa Nursi supaya tinggal di kediaman beliau yang mempunyai sebuah perpustakaan besar. Nursi tidak melepaskan peluang itu demi memenuhi cita-citanya. Umar Basha memberi peluang kepada Nursi untuk mendalami dan menghafal kitab-kitab seperti al-Matali, al-Mawaaif, dan al-Mirqat. Dalam tempoh dua tahun di kediaman Gabenor itu, beliau telah berjaya menguasai ilmu al-kalam, mantik, nahu, tafsir, hadith, dan fiqh dengan mantap.

Tetapi, minatnya untuk meneruskan usaha memperluaskan ilmu pengetahuan menyebabkan beliau meninggalkan Bitlis. Dalam pengembaraannya itu beliau menyambut pelawaan Gabenor Hasan Basha untuk berkhidmat di Wan sebagai ulama iaitu pada tahun 1897 (1314H).

(bersambung di m/s 6)

Answers (games of science – pg8).

Life.

1. False, 2. C, 3. A hyperparasite is a parasite, a species that benefits at the expense of its host, living on another parasite. 4. rot, 5. The hadrosaur's elongated, bony crest housed a hollow tube that connected with the animal's throat and nostrils. Scientists believe that the crest was used to produce signaling sounds that could be heard for long distances, much like those produced today by elephants and whales for communication.

Earth.

1. True. A "Goldilocks Zone" is a span of space where conditions are just right for life (as we know it) to exist--either too hot nor too cold. Earth and Mars are the only planets in the solar system that lie in the Goldilocks Zone, though some scientists think that microbial life might exist in the clouds above Venus. 2. C, 3. a diamond. According to Gemstones of the World, by Walter Schumann, diamonds are 10 on the Mohs hardness scale, rubies are 9, and emeralds are 7.5-8. The Mohs scale is used to measure the relative hardness of a mineral by its resistance to scratching. Talc, measuring 1 on the scale, is softest; diamond, measuring 10, is hardest. 4 Chile, 5. Vog is volcanic fog. When a volcano spews gas into the air, the gas can mix with low-lying clouds to form a soupy haze that hangs like smog over the surrounding countryside.

Math.

1.26, 2. 3/11. A proper fraction is one in which the numerator is less than the denominator. 3. angles, 4. convex, 5. 6c.

KALENDAR F.S.M.

*** F.S.M. ACTIVITIES ***
APRIL, MAY, JUNE 2004

5th APRIL
E-LEARNINF SEMINAR

12 APRIL –
IMPLEMENTATION OF INTRANET SYSTEM

20 APRIL –
KURSUS LATIHAN PERALATAN MAKMAL

24 APRIL –
PROGRAM BE A SMART LEARNER IN MATHEMATICS

10 MEI –
BENGKEL PENCARIAN MAKLUMAT

14 MEI –
LAWATAN SM TEKNIK SULTAN ABD HALIM

17-21 MEI
BENGKEL PENYEDIAAN SOALAN PEPRIKSAAN AKHIR

15 MEI & 22 MEI-
TAKLIMAT PROGRAM KPD GURU-GURU SEKOLAH

18-20 MEI –
BENGKEL PENULISAN UPENA

22 MEI –
SUKAN ANTARA FAKULTI

24 MEI –
WEBSITE FSM (HANDS ON)

17 JUN –
PENDAFTARAN PELAJAR BARU

18 JUN –
PERASMIAAN MINGGU WAWASAN

25 JUN –
PERASMIAN PUSAT ISLAM

26 JUN –
TEAM BUIDING (RELAU)

29-30 JUN –
PERAMISAN HARI BERTEMU PELANGGAN

F.S.M. MEETINGS :

18 APRIL – MEETING / GOTONG-ROYONG

8 JUN – MEETING / GOTONG-ROYONG

5 JULAI - MEETING.

Setelah beberapa ketika tinggal di kediaman Hasan Basha, Nursi sekali lagi dijemput untuk tinggal di kediaman Tahir Basha, Gabenor baru di Wan. Ketika berada di Wan, Nursi sempat bertemu dan berdialog dengan tokoh-tokoh ilmuwan moden. Kerana menyedari kelemahannya dalam bidang ilmu moden, mendorong beliau berusaha mempelajari dan mendalami ilmu-ilmu sains moden seperti fizik, kimia, biologi, ilmu kaji bumi, dan astronomi.

Selain ilmu sains beliau turut mempelajari ilmu sejarah, matematik, geografi, dan falsafah moden. Setelah menguasai bidang agama dan ilmu sains moden, sekali lagi Nursi diberi gelaran sebagai Badi'uzzaman. Gelaran tersebut diterima bahkan dijadikan sebahagian daripada nama beliau.

Pengalamannya semasa menuntut ilmu memberikan kesedaran pada beliau betapa perlunya dilakukan perubahan terhadap sistem pendidikan. Oleh sebab itu, beliau telah bertindak menggabungkan dua cabang ilmu iaitu ilmu agama dan ilmu sains moden yang sebelum itu telah dipisahkan.

Nursi berazam untuk mengubah persepsi negatif masyarakat yang berpandangan bahawa ilmu agama dan ilmu sains moden tidak boleh digabungkan. Pendekatan beliau ini dilaksanakan semasa kerjayanya sebagai seorang guru di madrasahnya yang dikenali sebagai Madrasah *Khur Khur.*

Nursi berpendirian bahawa umat Islam perlu menguasai kedua-dua cabang ilmu tersebut demi masa depan umat Islam seluruhnya. Beliau juga gigih berusaha untuk menubuhkan universiti yang akan dinamakan Madrasat al-Zahra di Timur Turki. Walau bagaimanapun, usaha beliau itu gagal kerana tidak mendapatkan persetujuan daripada golongan yang berpengaruh di Istanbul.

Sungguhpun begitu, Nursi terus berusaha untuk merealisasikan diri umat Islam sebagai "Umat Contoh". Pengamatan dan kesedaran Nursi itu telah mendorong beliau mengatur gerakan ke arah mereformasi sistem pendidikan yang wujud pada zamannya. Beliau berpendirian teguh bahawa dalam dunia moden hari ini, ilmu-ilmu agama dan ilmu-ilmu sains moden perlu bergerak seiring.

Apabila Turki diisytiharkan sebagai sebuah negara Republik pada 29 Oktober 1923, Turki bertukar wajah menjadi sebuah negara sekular. Kamal Ataturk melaksanakan dasar-dasar pemerintahan berlandaskan fahaman sekularisme yang anti-Islam.

Untuk menentang dasar itu, Nursi kemudiannya menyokong pembentukan Parti Demokratik Turki. Harapannya agar dapat melaksanakan pemerintahan yang adil dan sedikit kebebasan diberikan kepada gerakan Islam. Menurut Nursi, sekiranya Kerajaan Sekular boleh membenarkan fahaman ateis, mengapa tidak dibenarkan Islam bergerak dengan bebas.

Nursi mempunyai pandangan yang lain tentang konsep "kebebasan" yang dilihatnya sebagai satu keperluan asas. Keperluan ini harus dihormati dalam setiap agama dan bangsa. Namun, konsep "kebebasan" itu tidak sepatutnya disalahtafsirkan memandangkan pengisian maksud "kebebasan" yang tidak selari dengan peraturan Islam.

Atas hasrat inilah ketika perisytiharan perlembagaan negara, Nursi berjuang untuk menegakkan corak pemerintahan berasaskan Perlembagaan yang berteraskan kepada syariat Islam. Walau bagaimanapun, perjuangan suci beliau itu mendapat tentangan daripada golongan yang masih belum memahami kehebatan isi kandungan al-Quran. Nursi berpandangan bahawa kesedaran serta kefahaman yang jelas perlu diusahakan meskipun memakan masa yang panjang.

Yang penting isi kandungan al-Quran benar-benar difahami. Beliau menyedari bahawa kekerasan hanya mencetuskan permusuhan dan tidak membawa sebarang kebaikan kepada manusia.

Dalam usaha itu, Nursi menyeru umat Islam agar menilai golongan yang masih ragu-ragu terhadap Islam. Mereka perlu dikenal pasti sama ada dalam kalangan umat Islam mahupun kaum bukan Islam. Mereka yang terlibat itu dianggap sebagai satu golongan yang memerlukan bantuan dan tunjuk ajar daripada umat Islam. Beliau sama sekali tidak mahu terus melabelkan mereka sebagai musuh. Melalui kaedah ini, seruan Islam lebih mudah disampaikan dan dapat diterima baik oleh masyarakat.

Rasa'il al-Niir merupakan karya teragung Nursi yang merupakan khazanah berharga sumbangan pemikiran beliau. Karya agung ini seharusnya dimanfaatkan oleh umat Islam sepanjang zaman.

Sebenarnya, Rasa'il al-Nur merupakan satu tafsiran terhadap maksud al-Quran al-Karim. Secara umum isi kandungan kitab ini merangkumi persoalan keimanan.

Bersambung di edisi depan

F.S.M in actions ....

TAHNIAH !
PUAN TEOH SIAN HOON
Kerana Penyelidikan beliau diberi penghargaan oleh pihak CSSR sebagai kajian berpotensi untuk dikormesialkan.

Pihak BulletinF.S.M. juga ingin mengucapkan selamat datang dan salam berkenalan kepada semua pensyarah-pensyarah FSM yang baru !!!

GAMES OF SCIENCES...

Want to play a game of science trivia? See how many points you can win by correctly answering the questions below. To find your score, give yourself 10 points each time you get the first question right, 20 points for each second question, and so on. Good luck! (Answers on page 5)

LIFE SCIENCE	EARTH SCIENCE	MATHEMATICS
10 POINTS		
True or False	True or False	Complete this sequence
The term "guerrilla Warfare "began when soldiers were trained to fight like gorillas.	Earth is located in the "Goldilocks Zone" of our solar system.	4 8 13 19 --
20 POINTS		
A crummie is a cow with (A) bad breath. (B) crossed eyes. (C) crooked horns.	A ventifact is a stone shaped by (A) a diamond drill. (B) flowing water. (C) wind-blown sand.	Which of these is a proper fraction? 22/7 3/11
30 POINTS		
What is a hyperparasite?	Which is hardest a ruby, a diamond, or an emerald?	What does a protractor measure?
40 POINTS		
Dry -- is a fungus that infects and weakens timber and can be a serious problem in houses.	The Atacama Desert, one of Earth's driest deserts, is located in the country of --	Is the human cornea concave or convex in shape?
50 POINTS		
What did the tubular-crested hadrosaur, pictured here, use the crest on its head for?	Who is vog?	If a/b and c/d are in proportion, then ad = --.

For more Sci-Triv Games, visit Current Science Online at http://www.weeklyreader.com/cs

Tahniah kepada Puan AinulKhilah dengan kehadiran BABY BOYKE 3!!!

Bulletin FSM

بسم الله الرحمن الرحيم

Issue 6 (internal circulation) Aug/Sept/Oct. 2004

In this Issue :

Thoughts on why Physics is "difficult" for students..... and teachers too.

By. Mohd Noor Mohd Ali

Measurements

Physics is a branch of science, more exactly an empirical science where measurements are very, very important. Well, one scientist long ago said " *you have not begun to study science if you have not measure it*". So it has come to a point that to study science, it has to be measurable, quantified in some sort of ways and relationships established. As a result in most of physics textbook and courses, measurements (and units, standards) become the first topic to be discussed. The student's introduction to physics becomes a study of measurement, and throughout the course become greatly concerned with getting the right numbers and punching it out on their calculators to get an answer. Some in fact do not understand what they are trying to obtain except that they have to get some numbers out of a bunch of numbers given an a particular question.

Vectors

How strange it is that after so many years of study, from the primary through the lower secondary, students have not heard about vectors, and suddenly in physics, vectors seems to be very important? In fact, the study on motion and forces relies heavily on vectors. These vector quantities undergoes mathematical operation similar to non-vector quantities (scalars), but not exactly the same. And to make things more interesting these dimensional space are brought into play too. Students are told that space can be 1- dimensional, 2-dimensionl or 3-dimensional, but never more than 3-dimensionl.

Teachers try to differentiate vectors from scalars with the vector notation or the use of unit vectors, but sometimes, more often than not, especially when in one dimensional treatment, the notation will be replaced by + or – signs to indicate the directions. Students have enough trouble with + and – numbers, and here we are introducing them "– and + vectors", which in actual sense do not exist.

Motion

Speed is a scalar, velocity is a vector. You can find some textbook which define the velocity of light = 3×10^8 ms^{-1}. Come on now, does light travel in one direction only? Acceleration is normally defined as the increase in speed, and deceleration as the decrease in speed, but when treated as a vector, we might obtain – and + acceleration. A + acceleration is an increase in speed, but a - acceleration might be a decrease in speed or an increase in speed.
That is to say that a – acceleration might be an acceleration or a deceleration. It is a deceleration if the object is traveling in the original direction, but acceleration in the opposite direction when the object travels in the opposite direction.
Confusing huh?

Newton's Laws of Motion

Newton's First Law of motion is about a frame of reference in which an object which might be stationary or traveling at constant velocity. Everything on earth is rotating together with the earth and the earth itself revolves around the sun, which means that everything undergoes some kind of acceleration, but is a particular frame of reference things might be stationary or travels at a constant velocity. Newton's Second Law $\Sigma F = ma$ only applies to a particular reference frame, which itself might be moving under acceleration. Newton's Third Law is especially confusing, action and reaction force existing together. Does that mean the total force is zero? No, the action and reaction forces act on different bodies, not on the same body!

Conservation Laws.

The main laws that govern physics are the conservation laws of mass, charges, energy, momentum (linear and angular). But how many students realize that these laws are central to the other laws that they study? More often than not, the laws of conservation are not described in their own chapter, but thrown around in the textbook.

Difference and Change.

In some textbook the difference between two scalar quantities, A and B is the magnitude $|A - B|$ which is exactly equal to $|B - A|$, which is always a positive value; in some it might be positive or negative value, which is actually the change between A and B. Not only does it confuse non-native speakers of the English language, even native speakers too are confused.

Energy

Energy is needed to do work. When work is done on one object it acquire energy. Looks like the case of the chicken and egg, does it? Actually, no! In case of contact force, the work is done by another object that has that energy, which passes the energy to the second object. The first object loses energy, the second object gains energy. We rarely talk about the first object, only the force it exerts on the second object. Thus we imparted erroneously to the students "invisible force", i.e. a force that exists by itself. In the case of field force, the force is exerted not by another object but by the field. Certain things in the field might have potential energy, which would supply the energy needed to do work. A mass in a gravitational field has gravitational potential energy, but uncharged it will not posses electrical potential energy when placed in an electric field. When field force does work, potential energy decreases, while kinetic energy increases.

Continue on page 2 =>

(Continue from page)

Shortcuts

Some teachers teach shortcut equations to their students. Shortcut equations do not hold fundamental concepts. In the long run the students fail to appreciate the fundamental concepts and believe in the shortcut equations blindly.
For example the magnitude of the change in KE is equal to the magnitude of the change in PE is derived from the fundamental equation of the conservation of energy, the sum of PE and KE in the beginning is equal to the sum of PE and KE in the final state, i.e. constant. Another example is the Kirchoff's Current and Voltage Laws. Most instructors presented these laws, as it is, not even mentioning the current law as a result of conservation of charge/mass and the voltage law as the result of conservation of energy. To make things worse some even suggest the voltage law as the sum of changes in potential rises as equal the sum of changes in potential drops using ε as potential rises and IR as potential drops, which actually depends on which way you go around a circuit.

Sometimes I wonder if Newton himself should be blamed, for writing a treatise on physics entitled "The Mathematical Principles of Natural Philosophy". Philosophy after all can be anything under the sun and never wrong, but will not survive the rigorous of of science and mathematics.

WORD PUZZLE -ENGINES

X	O	R	F	T	Y	D	O	R	H	S	U	P	N	O	T	S	I	P	D
K	Q	C	Y	X	O	P	K	L	S	D	A	P	E	K	A	R	B	I	K
I	G	L	R	L	Y	E	Z	E	E	R	F	I	T	N	A	W	P	Z	X
K	A	D	E	R	O	T	O	M	R	E	T	R	A	T	S	S	I	E	O
M	L	B	T	F	T	X	S	M	K	Q	M	I	L	F	T	F	V	M	G
K	T	Y	T	V	U	F	C	K	W	O	R	E	K	I	W	L	A	V	D
C	E	Y	A	G	R	E	I	R	M	S	B	Z	C	Q	A	N	W	A	S
A	R	M	B	U	O	S	L	J	E	N	W	K	A	V	Y	S	Z	G	T
R	N	S	Z	C	T	U	U	T	A	T	R	I	R	D	P	R	U	V	Z
B	A	E	O	Y	U	E	A	F	A	F	A	E	G	G	A	L	H	D	C
U	T	T	R	L	B	D	R	B	Q	N	K	W	N	D	P	G	I	A	R
R	O	Q	L	I	I	G	D	W	I	C	K	T	I	K	N	H	P	U	J
E	R	P	Z	N	R	A	Y	F	O	O	N	A	R	J	F	R	K	P	T
T	S	M	X	D	T	W	H	R	Z	A	T	A	E	O	V	F	E	E	I
T	T	U	J	E	S	D	V	X	S	O	P	I	E	B	E	T	K	Q	L
O	L	O	M	R	I	A	X	Z	R	S	L	Q	T	A	R	S	P	C	G
R	V	E	I	P	D	C	J	D	Y	C	S	U	S	O	A	R	O	J	T
J	R	S	Y	L	F	C	F	N	R	O	H	Y	L	G	J	B	R	H	V

SEARCH THE FOLLOWING WORDS FROM THE PUZZLE :

ALTERNATOR
ANTI-FREEZE
BATTERY
BRAKE PADS
CAP
CARBURETTOR
CYLINDER
DIPSTICK
DISTRIBUTOR
DYNAMO
FAN BELT
FUEL TANK
GASKET
HORN
HOSE
HYDRAULICS
OIL
PETROL
PISTON
PUSH ROD
RADIATOR
ROCKER VALVE
SPARK PLUGS
STARTER MOTOR
STEERING RACK
SUMP
WATER

Sambungan dari edisi 5

We Owe Them...

Dalam usaha itu, Nursi menyeru umat Islam agar menilai golongan yang masih ragu-ragu terhadap Islam. Mereka perlu dikenal pasti sama ada dalam kalangan umat Islam mahupun kaum bukan Islam. Mereka yang terlibat itu dianggap sebagai satu golongan yang memerlukan bantuan dan tunjuk ajar daripada umat Islam. Beliau sama sekali tidak mahu terus melabelkan mereka sebagai musuh. Melalui kaedah ini, seruan Islam lebih mudah disampaikan dan dapat diterima baik oleh masyarakat.

Rasa'il al-Niir merupakan karya teragung Nursi yang merupakan khazanah berharga sumbangan pemikiran beliau. Karya agung ini seharusnya dimanfaatkan oleh umat Islam sepanjang zaman. Sebenarnya, Rasa'il al-Nur merupakan satu tafsiran terhadap maksud al-Quran al-Karim. Secara umum isi kandungan kitab ini merangkumi persoalan keimanan.

Menurut Nursi, satu-satunya rujukan dalam menghasilkan kitab Rasa'il al-Nur ini ialah kitab suci al-Quran al-Karim. Antara persoalan yang menjadi kupasan dalam karyanya itu ialah seperti ilmu *Mustalah al'Hadith,* falsafah, Ilm al-Kalam, dan ilmu *Tasawuf.*

Dalam perbahasan mengenai Mustalah al-Hadith, Nursi menekankan hadith-hadith yang sering dipertikaikan masyarakat. Di sini, beliau telah mengemukakan perbahasan yang menarik. Antara yang dibahaskan ialah yang berkaitan dengan kisah Dajjal, turunnya Nabi Isa a.s, Imam Mahdi, Nabi Khaidir, Malaikat, tanda-tanda kiamat, dan sebagainya.

Sekian.

F.S.M [illegible] DAY

- HUTAN LIPUR BUKIT PANCHOR !!!

KALENDAR F.S.M. 2004

*** F.S.M. ACTIVITIES ***

F.S.M. MEETINGS :

JULY 2004

6 - Meeting Bulanan Fakulti
7 - Meeting Akademik HEA
13 - PotLuck FSM
27 - Meeting Bulanan Fakulti

AUGUST 2004

11- Meeting Akademik HEA

SEPTEMBER 2004

-Gotong Royong1 Pejabat FSM

-Gotong Royong2 Pejabat FSM

-Meeting Bulanan Fakulti

-Meeting Jawatankuasa Qualiti/ Hari Keluarga1

-Meeting Jawatankuasa Qualiti/ Hari Keluarga2

14-Meeting Jawatankuasa Qualiti/ Hari Keluarga3

18-Hari Keluarga FSM di Sg. Buaya

21-Postmortem Hari Keluarga FSM

SENARAI AKTIVITI AHLI FSM
(KURSUS/PERBENTANGAN/SEMINAR /etc)

/8/2004 : Bengkel Soalan Peperiksaan Akhir: PanPac KLIA (ooi, rohana, husniah, ainorkhilah ....)

8-10/8/2004 : Bengkel UPENA , PanPac KLIA (rohana, hanim, ooi)

16-18/6/2004 : Second International Conference On Primary And Secondary Schools Science And Mathematics Education (attending-peridah)

18/8/2004 : Seminar Kebangsaan Ilmu Falak USM (hanim, koni, ainorkhilah, hasfazilah, marina)

10/8/2004 : Program Motivasi di SMK Bakai, Kuala Ketil, Kedah (Penceramah-peridah)

15-16/9/2004 : Ecological And Environmental Modeling (Ecomod 2004) (attending-peridah,)

18/9/2004 : Hari Keluarga FSM di Hutan Lipur Nibong (Sg. Buaya) - semua ahli keluarga fsm dijemput.

17-18/9/2004-Mesyuarat UPENA, Shah Alam (rohana)

22/9/04-Mesyuarat j/k journal akademik 'Esteem V2', B.Mesyuarat HEA (hanim, marina, sarina, rozita, MNMA, dan tg.muhaini)

Makmal Kimia

1. Pameran sains sempena lawatan pelajar sekolah:

Tempat: Makmal Kimia (MK1)
Tarikh: 12 Ogos 2004
Masa: 10 a.m.

Satu demonstrasi eksperimen kimia telah diadakan di makmal Kimia semasa sesi lawatan yang dihadiri oleh seramai 134 pelajar Darjah 6, Sekolah Kebangsaan Tok Kondu sempena Program Motivasi yang dianjurkan oleh UiTM Pulau Pinang. Demonstrasi berakhir dengan jayanya, walaupun agak sukar untuk mengawal keadaan pelajar yang ramai dan aktif.

2. Makmal Sains (Kimia dan Fizik) sedang di dalam proses pembelian rak-rak bagi menyimpan alat radas memandangkan rak sedia ada sudah tidak mencukupi.

Itu sahaja laporan dari makmal kimia setakat ini.

Sekian. Terima kasih.
Penyelaras Makmal Kimia,
Azrinawati Mohd. Zin

SENARAI PENYELIDIKAN YANG TELAH / SEDANG DILAKSANAKAN OLEH AHLI F.S.M. UiTMPP (SEHINGGA SEPTEMBER 2004)

Nama Penyelidik	Tajuk Penyelidikan	Tempoh / Sponsor	Budget
1 **Siti Aishah Bt. Sheikh Abdullah (K)**	Conception of fuction among college and university students.	Sudah siap	8,585.00
2 **Teoh Sian Hoon (K)**	The design, development and testing of multimedia assisted mastering learning in the matrices amongst low ability students in secondary school.	Sudah siap	5,480.00
3 **Dr. Rosy The Chooi GIM (K)**	Solutions of the Yang – Mills – Higgs Theory.	Sudah siap	
4 **Cheng Siak Peng (K)** Ch`Ng Pei Eng	Analisa kesilapan-kesilapan matematik dalam skrip jawapan dikalangan pelajar UiTM yang mengambil kursus Mat 141/2.	June03-july04 (sudah siap)	4,990.00
5 **Dr. Rosy The Chooi GIM (K)**	A study of the solutions of the Hamiltonian amplitude equation	Sudah siap	17,287.55
6 **Nor Hanim Abdul Rahman(K)** Mohd Rozaiman Aziz Suzana Ab. Rahim	A Study of Temperture and Pressure changes in closed and slightly closed vehicles.	June 03-31Dec04	10,000.00
7 **Hasfazilah Ahmat (K)** **Nor Hanim Abdul Rahman** **Tengku Muhani Tuan Mat** **Koni Md Taha**	Satu Analisa Terhadap korelasi pencapaian akademik pelajar semester pertama uitm cawangan pulau pinang dengan latar belakang pelajar.	Feb04-jan05	5,088.00
8.**Siti Aishah Bt. Sheikh Abdullah (K)**	Analisa pencapaian akademik pelajar kejuruteraan Kampus Bukit Mertajam dan hubungan dengan kebolehan matematik	Oct00-sept01	5,000.00
9 **Mohd Noor b. Mohd Ali (K)** **Siti Aishah Sheikh Abdullah** **Sharaf Ahmad** **Noor`Aina Abdul Razak**	Misconception studies in physics and mathematics among first year engineering students.	Mei02 - april03	5,250.00
10. **Rohana Bt. Atan (K)** **Teoh Sian Hoon**	Using cooperative learning in the teaching of science and mathematics.	Dis02 – jan04	10,000.00
11. **Lim Boon Tik (K)** Muhammad Akram Adnan **Cheng Siak Peng** Dr. Seng Chye Eng	To determine and calculate the concentration of heavy metals in shredded tires.	Ogos03 - Ogos04	9,990.00
12. **Nor Hanim AbdulRahman(K)** **Zainiharyati Md. Zin** **Hasfazuilah Ahmad**	Logam Berat : satu kajian menguji tahap kandungan ion berat ferum (iron) dan Ph di dalam air yang disalurkan ke kawasan kediaman di sekitar Pulau Pinang dan Kedah.	June04-may05	12,429.00

13. **Koni Bt. Md Taha (K)** **Tengku Muhaini Tuan Mat** **Hasfazilah Bt. Ahmat**	Tahap Pembudayaan ICT (Information and communication Technology) dikalangan pensyarah UiTM Cawangan Pulau Pinang dan Cawangan Perlis.	Feb04-jan04	6,888.00
14. **Mohd Agos Salim B. Nasir (K)** P.M. Ahmad Izani Md Ismail, PhD	Numerical solutions of the Goursat Problem.	Jan04-dis04	20,000.00
15. **Ooi Aik Seng (K)** **Siti Husniah Chumiran**	A survey of absorbed doses to patients from diagnostic x ray in five Major Hospital In Penang.	July04-june05	20,000.00
16. **Azmi B. Mohamed Yusof (K)** **Rozita Bt. Kadar** **Zurida Bt. Ishak**	Pengkelasan gaya pembelajaran pelajar kejuruteraan UiTM Pulau Pinang menggunakan model gaya pembelajaran Felder-Silverman	Ogos04-july05	17,000.00
17. **Rozita Bt. Kadar (K)** **Sarina Mat Jam** **Teoh Sian Hoon**	"The level of self-efficacy and motivation among Diploma In Engineering in students UiTM PulauPinang".		16,608.00
18. **Zainiharyati Mohd Zain (K)** P.M. Bahruddin Saad **Rohana Atan**	Simultaneous determination of Fe (11) and Fe (111) in water Using flow injection analysis : Optimization of FIA manifold.	Oct04-sept05	**47,533.10**

Member In Project

Nama Penyelidik	Tajuk penyelidikan	Tempoh / Sponsor	Budget
1. **Teoh Sian Hoon** **Lim Boon Tik**	An Investigation on the effectiveness of road humps in residential area	Mac03-Mei04	20,000.00
2. **PM Peridah Bahari**	Kajian Korelasi Mengenai Perkaitan di Antara Latarbelakang Pelajar dan Karier Pilihan : Kajian di Sekolah-Sekolah Menengah Sekitar Seberang Perai Utara dan Tengah	Sudah Siap	9,998
3. **P.M. Peridah Bahari**	Challenges in motivating students to learn independently using a web-based support component.	Jun03-Mei04	10,000.00
4. **Shakirah Bt. Mohd Abd Rahman**	Site classification for soil at the east coast petrochemical industrial corridor.		20,000.00
5. **Marina Bt. Mokhtar**	Microwave radiation effect – A test on white mice	Ogos03-july04	9,900.00

Selamat Maju Jaya Kepada SEMUA SISWA DAN SISWI UiTM, Pulau Pinang dalam menghadapi Peperiksaan Akhir Semester (9-18 Oktober 2004)

Bulletin FSM

بسم الله الرحمن الرحيم

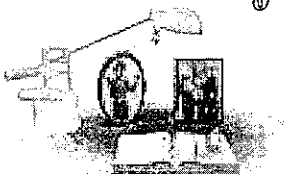
Issue 7 (internal circulation) MARCH 2005

http://10.100.30.45/bulletin

In this Issue :

MUSIM PEPERIKSAAN KEMBALI LAGI ...

Selamat Maju Jaya!



Dealing with stress:

Increasing our sense of control over the stressor decreases the level of stress we feel.

Learn how you react to stress and what causes you to feel stressed

Develop your ability to adapt to stressful situations: Learn to distinguish between the aspects of situations you can change and the aspects you can't change. It is very difficult to change the behaviors, values, and attitudes of others. However we can change our own attitudes and behaviors. For instance, we can choose to interpret stressful situations as opportunities for growth and we can choose life affirming behaviors to change our situations. We can also alter our environments to some extent. We can find a place to study without distractions, and we can brighten our immediate environments with the things that interest and refresh us.

Be sure your actions reflect your values: If not, review the values you are questioning. Are you willing to give up old socialized patterns to find patterns that are more authentic?

Use and reinforce positive self-statements. Internal dialogue is only semi-verbal but it is always influential We provide an internal mirror for ourselves. We make choices about the mirror we see. We can see a negative mirror that reflects our weaknesses and suggests powerlessness or we can see a positive mirror that emphasizes our strengths, good qualities AND, our possibilities.

Learn To Deal With Negative People. People who display negative attitudes, a pessimistic outlook on life, and a constant state of nervousness can make you experience negative feelings that add to your stress. If friends or family members get you down, try to counter their negative remarks with self-affirming ones of your own. When they do behave in a more positive way, comment on what you like about their behavior, thereby increasing the chances [reinforcing] a behavior that you like will continue.

Learn To Say No. In a relationship you have the right to respect, dignity, appreciation, and kindness. You have the right to your own view and you have the right to be heard. You have the right to live without emotional and physical threats and abuse. For whatever reason, many of us have difficulty saying no when someone asks us to do something, even if we don=t have the time or desire to do it. When you are already over-stretched because of work, family and obligations, the last thing you need is to take on more responsibilities. When someone makes demands on your dwindling time, think carefully about how you feel. Ask yourself, Do I really want or need to do this? If the answer is No, learn to say so. If you have trouble saying no, you may need to practice being more assertive. If you are interested in learning to be more assertive, our counselors can help you with that. You could also check our website, the campus bookstore or the library for materials on the topic.

EXERCISE TENSIONS AWAY. When you are under stress, your muscles tense involuntarily. You may have noticed the tightness in the back of your neck and across your shoulders that often precedes a headache. Exercise has a natural calming effect that is accompanied by a positive feeling. For example, you may have heard about or experienced the extreme of this effect, runner's high, the feeling of euphoria and sudden burst of energy runners get after they have been running a long time.

CONTINUE ON PAGE 2

Connect with friends, counselors, clergy, family, to "unload" emotion, concerns, etc. Use e-mail, letters, phone if necessary.

ASK FOR HELP. Acknowledge and accept your limits. Some problems may be more than you can handle by yourself, and you may need to seek financial, medical, or some other type of help or advice. Some problems may look a lot worse than they are until you talk to someoneabout them and get a different perspective. If you are the kind of person who hates to ask for help, try to get over this attitude. Many times we worry needlessly and cause ourselves even more stress by living with problems we think are unsolvable, when asking for a little help and getting it might bring immediate relief. Use counseling and advising resources on campus.

LOSE YOURSELF IN ACTIVITY. When you are under stress, engage in some activities that cause you to lose track of time. During those moments, you can forget your worries and experience happy, calming feelings. Reading, and spending time pursuing a hobby or special interest are all activities in which can dislodge you from the worry cycle. Learn new skills.

Volunteer. (e.g., do volunteer work through the NMU Volunteer Center 227-2466) or Check the MarquetteMonthly for local activities in the Marquette area. For instance, student help is always needed at the dog sled races and the summer music festival. You can also shovel snow from someone's walk, collect clothing for donations or help clean up your residence hall

Stay healthy physically (e.g. eat nutritiously, get enough sleep) Stay comfortable: wear warm layers in the winter

Practice relaxation techniques 1. Slow, deep breaths 2. Muscle relaxation 3. Imagery 4. Yoga (Increases flexibility and improves concentration)

Use time efficiently. Good time management reduces.

1. **Budget time**
2. **Make a list of things to accomplish each accomplishments., stress day**
3. **Allow time for play**

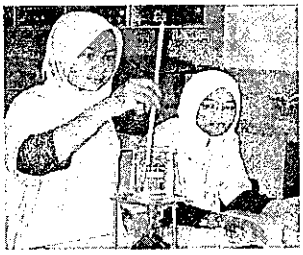
Don't procrastinate. Procrastination is avoiding tasks that must be accomplished. Procrastination has a high potential for painful consequences. It interferes with the academic and personal success of students. This can lead to feelings of guilt, inadequacy, depression and self-doubt. Negative beliefs such as; "I lack the necessary skills to perform the task," and a preoccupation with the fear and anxiety associated with negative beliefs can get in the way of your progress on an assignment. Confront the negative beliefs and replace them with positive possibilities. Break the assignment into smaller tasks and begin one of them.

Study for exams effectively

1. Take short rests when studying 2. Get help from professor 3. Allow enough time/ make a study schedule 4. Don't obsess about previous exams, focus on current work Realize some stress is appropriate and may be beneficial.

written by CCS psychologists Stanger, and Wideman

NMU Counseling and Consultation Services, 201 Cohodas Building 227-2980



Do you worry about your grade a lot?

A good grade will be a natural consequence of understanding the subject. Rather than thinking about the grade as such you should worry about understanding the subject. It's more efficient!

Another point about grades: students sometimes seem to think that there is a well defined and unique way to assign a grade to a given piece of work, and sometimes the instructor misses it and just needs to be informed of that failure. Actually, assigning grades is mostly arbitrary within a wide range, and determined by the grader's judgment of what is reasonable. Once that judgment is made the only thing that matters is consistency, because we must be fair. That's the major reason why instructors are hesitant to change grades, particularly in large classes.

by Peter Alfeld., University of Utah,USA

Exhaustion's Effect on Blood Increases Heart Attack Risk

– A mental state known as vital exhaustion may increase blood clotting, helping to explain why it is associated with a heightened heart attack risk, according to a study conducted in the Netherlands. Other studies have found the medical condition known as vital exhaustion more than doubles the risk of a first heart attack, but it is not yet fully understood how. Vital exhaustion is a state of excessive fatigue, irritability and hopelessness.

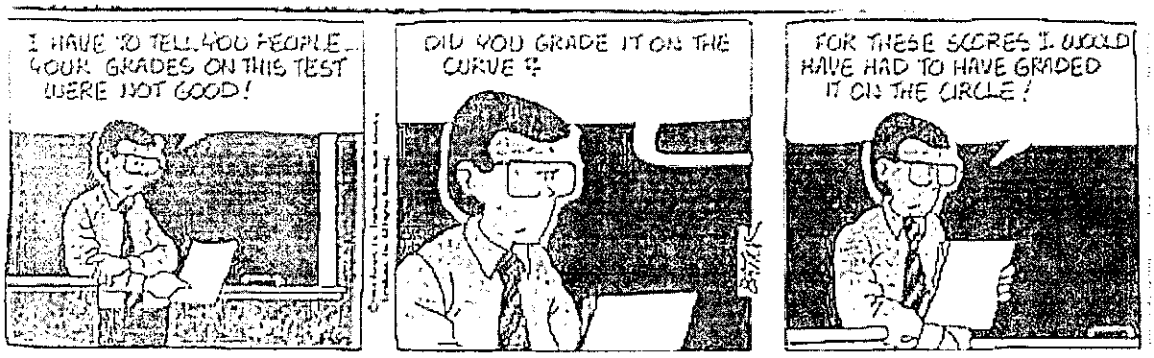
People experiencing this condition feel that everyday activities require immense effort, and they find it very difficult to motivate themselves. People often attribute vital exhaustion to life stresses, being overworked or having a significant experience of loss. Some have suggested that vital exhaustion is a mental state people reach when their stress coping resources have stretched to the limit and have broken down, according to the study, led by Rob van Diest, Ph.D., of the Department of Psychiatry and Neuropsychology at Maastricht University in the Netherlands. Van Diest and colleagues compared blood samples from two groups of 30 study participants. One group had been classified as vitally exhausted through a 23-item questionnaire called the Maastricht interview for vital exhaustion. The other group, which served as a control group, tested negative for vital exhaustion.

All the study participants were nonsmokers and in good health.The blood tests of the vitally exhausted participants differed from the control group in several ways, the researchers found. Their study results are published in the September/October issue of the journal Psychosomatic Medicine. The participants with vital exhaustion tended to have higher blood levels of a protein called fibrinogen, a protein that causes the blood to clot. High fibrinogen levels can lead to excessive blood clotting that can cut off or drastically minimize blood flow to the heart or brain, and previous studies have found that high fibrinogen levels increase heart attack risk. Vital exhaustion was also associated with decreased early morning fibrinolysis, which is the process by which blood clots break down.

"We suggest that these [blood] changes provide a potential ... mechanism by which vital exhaustion is related to heart attack," van Diest concludes.

This research was supported by grants from the Dutch Heart Foundation and the National Institute of Health.

Source: Center for the Advancement of Health (September 2002)



Makmal Kimia

1. Lawatan pelajar sekolah ke Makmal Kimia

Pada 12 Mac 2005, bertempat di Makmal Kimia 1, seramai 80 orang murid Sekolah Menengah Kebangsaan Jerai, Kupang, telah melawat Makmal Kimia 1, sebagai salah satu agenda lawatan sambil belajar mereka ke kampus UiTM Pulau Pinang. Antara aktiviti-aktiviti yang disediakan ialah eksperimen gunung berapi, susu ajaib, lumpur ajaib dan model-model kekisi atom. Staf yang terlibat pula terdiri daripada Pn. Azrinawati, Pn. Zainiharyati, Pn. Wan Zarina dan pembantu makmal iaitu Pn. Salamiah dan Pn. Khaironniswah. .

Pada 14 Mac 2005 pula, seramai lebih kurang 30 pelajar Sekolah Menengah Bandar Baru Perda mengadakan lawatan ke Makmal Kimia 1. Staf yang terlibat hanyalah terdiri daripada pembantu-pembantu makmal kerana para pensyarah terpaksa menghadiri taklimat peperiksaan.

Permohonan pembelian peralatan

Makmal Kimia telah memohon pembelian peralatan berjumlah RM372, 400 menggunakan budget RM500, 000 yang diperuntukkan kepada Fakulti Sains dan Matematik. Sebanyak 11 item telah disenaraikan dan spesifikasi teknikal telah disediakan oleh para pensyarah kimia.

Pengelaras Makmal Kimia,
Azrinawati Mohd. Zin

Do you cheat on exam ?

Well, I don't have to tell you that you are not supposed to do that! But there is more to it than that. You are wasting your time!

Don't believe that all you need is a passing grade in this class since somebody made up an arbitrary rule! By and large there are good reasons for prerequisites and requirements.

Cheating just makes your life miserable and only *postpones* embarrassment and agony. It deprives you of the pride and joy that comes from doing well because of your skills and accomplishments. It denies you the learning experience offered by the class. It leaves you with a handicap when taking advanced classes, or starting a position that requires your presumed but fake expertise. It ruins your self confidence. It's not even an effective way of getting a reasonable grade. Most people I have seen cheating are getting poor grades anyway. So you are on a road that leads nowhere and you are cheating only yourself. Either change your ways, or rearrange your life so you end up in a situation where you don't feel that cheating is the only way you can cope. by Peter Alfeld, University of Utah,USA

Penggunaan Kemudahan Makmal Fizik oleh Pelajar OUM

Pada 26 & 27 Februari serta **12 & 13 Mac** yang lalu, dua kumpulan siswa-siswi program Sarjana Muda Pendidikan Sains daripada Universiti Terbuka Malaysia (OUM) telah mengikuti kelas amali Fizik di Makmal Fizik FSM, UiTM Pulau Pinang. Kelas amali ini merupakan sebahagian daripada keperluan kursus *Thermodynamics* dan *Light and Modern Physics* yang sedang diikuti oleh siswa-siswi ini di OUM.

Kumpulan pertama seramai 79 orang siswa-siswi manakala kumpulan kedua seramai 34 orang siswa-siswi telah mengikuti dengan jayanya kelas amali ini yang dikendalikan oleh staf unit Fizik FSM. Siswa-siswi OUM ini adalah dari sekitar negeri Perlis, Kedah, Perak dan Pulau Pinang. Kesemua pelajar ini merupakan guru sekolah yang sedang melanjutkan pelajaran di peringkat Sarjana Muda.

Seramai 12 orang pensyarah Fizik serta 4 orang pembantu makmal yang diketuai oleh Prof. Madya Lim Kim Poon selaku penyelaras terlibat dalam proses penyediaan dan perlaksanaan kelas amali ini. Memandangkan bilangan siswa-siswi yang ramai, 3 makmal Fizik telah digunakan. Setiap makmal yang telah dilengkapi dengan sebuah komputer, projektor LCD dan skrin untuk memudahkan 'demonstrator' membuat pembentangan serta menunjukkan cara-cara melakukan ujikaji, ditugaskan 2 orang 'demonstrators' dan seorang pembantu makmal..

Daripada maklum balas yang diberi oleh siswa-siswi OUM, mereka amat berpuas hati dengan kemudahan makmal serta layanan baik yang diberikan. Memandangkan kerja pengendalian kelas amali ini melibatkan kemudahan dan kepakaran staf UiTM, pihak unit Fizik telah mendaftarkan kerja ini sebagai satu projek perundingan di bawah URDC. Pihak unit Fizik khususnya dan FSM umumnya berharap projek ini dapat diteruskan pada semester-semester akan datang.

Disediakan oleh En. Ooi Aik Seng

KALENDAR F.S.M. 2004-2005

F.S.M. ACTIVITIES & MEETINGS :

DISEMBER 2004
Bengkel SPSS

JANUARI 2005
4-mesyuarat FSM
11- mesyuarat HEA

FEBRUARI 2005
1-FSM lunch
1- mesyuarat FSM
6-Hari Khidmat Pelanggan
26&27-Open Univ.Malaysia-makmal fizikFSM

MAC 2005
12-lawatan dari SMK Jerai
12&13-OUM-makmal fizik FSM
14- mesyuarat FSM
14-Lawatan Pelajar dari SM Bandar Baru Perda

Dedicated to ALL human Being who are addicted to ...

I.

I walk down the street.
There's a deep hole in the sidewalk.
I fall in.
I am lost.....I am helpless;
it isn't my fault.
It takes forever to find a way out.

II.

I walk down the same street.
There is a deep hole in the sidewalk.
I pretend I don't see it.
I fall in again.
I can't believe I am in the same place;
but it isn't my fault.
It still takes a long time to get out.

III.

I walk down the same street.
There is a deep hole in the sidewalk.
I see it is there.
I still fall in....it's a habit.
My eyes are open.
I know where I am.
It is my fault.
I get out immediately.

IV.

I walk down the same street.
There is a deep hole in the sidewalk.
I walk around it.

V.

I walk down a different street.

by Portia Nelson

'EXAM SMART' 2005

The purpose of 'Exam Smart' Programme was threefold in its implementation. Firstly, it was conducted to help students in reinforcing their basic knowledge in Mathematics. Secondly, it gave confidence to the students in answering questions. Thirdly, it gave guidelines in answering the Final Examination questions. The lecturers involved in this programme were Pn Teoh Sian Hoon (conducting the sessions and preparing materials), Pn Sarina Md Jam (conducting the sessions and preparing materials), Pn Ng Set Foong (preparing materials) and Cik Norpah Bt Mahat (preparing materials). The following activities have been conducted.

Dates	Activities
7 Jan 2005	Focus on the basic techniques of answering questions.
28 Jan 2005	Focus on the basic knowledge in Mathematics
4 Feb 2005	Focus on the topic of Trigonometry
5 Mar 2005	1. Focus on tips for answering Mathematics questions in the Final Examination. 2. Focus on mistakes done in answering questions.

Not everything that can be counted counts, and not everything that counts can be counted.
- Albert Einstein

***

I guess I think of lotteries as a tax on the mathematically challenged.
- Roger Jones

OUM-UiTMPP 2005

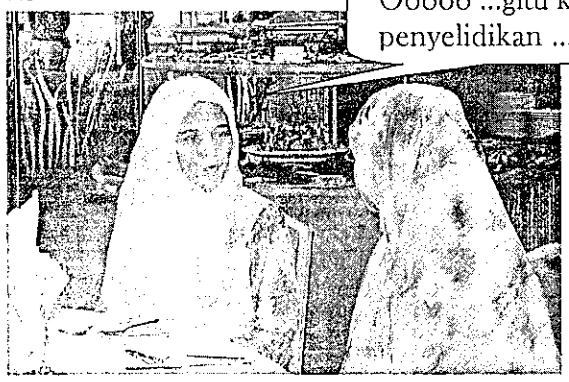
I rasa ini dah terbaliklah ...

Mana titik keseimbangan?

Begini ke cara nak pasang litar?

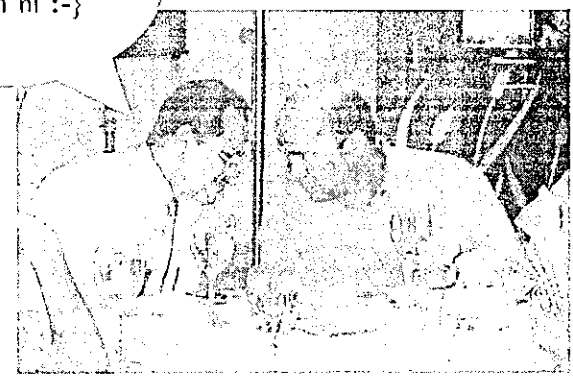
Cuba check sekali lagi

JAMUAN MAKAN TENGAHARI - FSM 2005



Ooooo ...gitu ke buat penyelidikan ...

Bila kita nak makan ni ...I lapaq dah ni :-}



Recommended strategies to cope with Physics

- contributed byPn Husniah Chumiran

People always talk about towards academic excellence. So, one of it is to have a good final result. In order to have a good result, one must know the variety of test taking strategies.

mind set

Always believe in yourself and have faith that the subject is not tough to understand, but you might have to do extra work to understand. Other people can do it, and so you are.

learning tools

This is an ongoing process. You must have basic knowledge in note taking and study skill. These skills will help you for better understanding because you are no longer in a school. University will always bring you to student-centered style and spoon-fed is very rare. So make sure you are not left behind. Do as much exercises as you can, because it will help you to memorize. Furthermore, you will be exposed to different pattern of questions. Your resources could be from your tutorials, past semester's questions, supplementary from textbook and so on. During this ongoing progress, make sure you seriously complete your coursework because part of your marks is already there. Discussion and consultation is important and could be with your peer and / or lecturer. Finally, after your hard work, pray to God for your success.

marks distribution

Always check the mark allocate for each question, the mark will represent the length of your answer. Normally, higher mark is needed for a longer answer. It will also represent the level of difficulty of that particular question

past semesters exam questions : the pattern

Those questions will bring you to various pattern and style of questioning. You are advise to try at least 5 semesters behind, but if you think you can do more, then it is better, because you will experience more pattern. If you ever heard of bloom taxonomy, use those criteria to sort the level of difficulties. You should aware how many questions are asked in each topic.

allocation of time

Use your time wisely. Old folks say: practice make perfect. A lot of practice will help you answer faster and allow you to double check your answer. How about synchronizing your marks and time to answer. It means that longer time is needed for higher mark.

answering technique

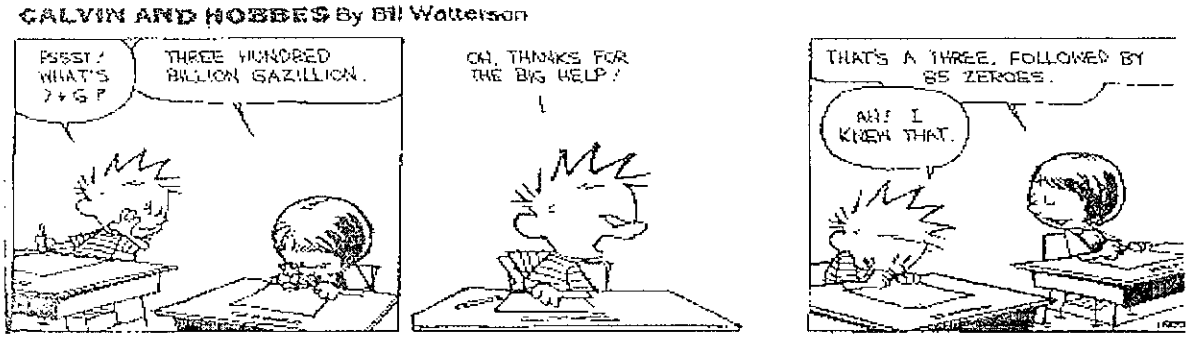
Alert when your lecturer tells you to do this and that when answering exam. In physics, 'unit' is important in your final answer. The right technique will avoid you of misconception. Your method of work is more important than your final answer because it will bring higher mark.

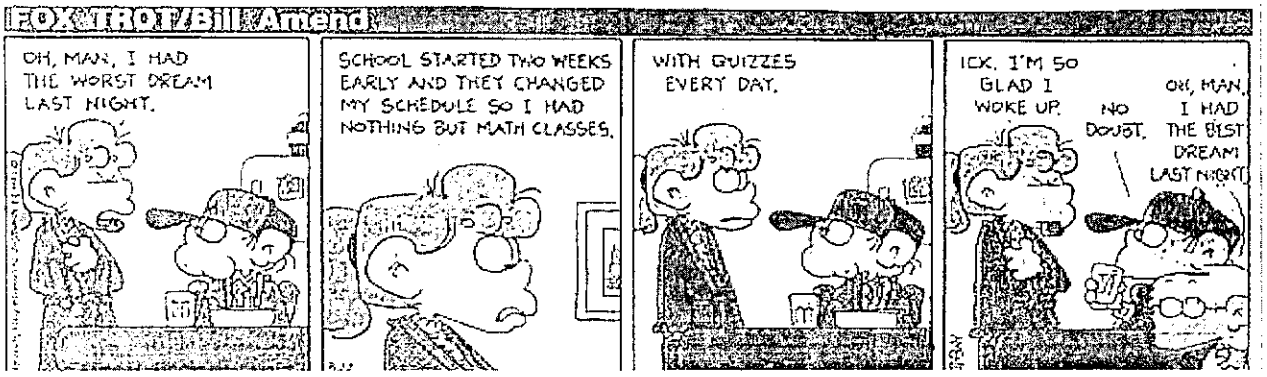
common mistakes

Learn from mistake is the best to avoid the next one. You could learn it from yours or your friends. Share your mistakes with friends and they will also give theirs.

Hope that these tips will help you.

All the best for your final exam.





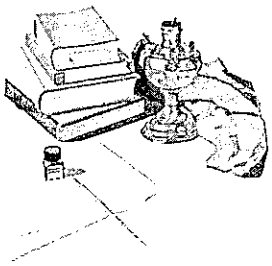
AL-KHAZIN

ABU Jafar Muhammad ibn al-Hasan Khazin lahir pada tahun 900 Masehi di Khurasan yang terletak di timur Iran. Lebih dikenali sebagai al-Khazin dan merupakan ahli astronomi dan matematik terkenal pada zamannya.

Keluarga al-Khazin berasal dari Saba iaitu sebuah kota di benua Arab. Tempat itu lebih dikenali sebagai Sheba berdasarkan cerita Raja Solomon dan Ratu Sheba. Al-Khazin merupakan salah seorang saintis yang tinggal di bandar dikenali, Rayy. Rayy ketika itu berada di bawah pemerintahan Dinasti Buyid iaitu ketuanya dikenali sebagai Adud ad-Dawlah.

Adud memerintah Rayy dari tahun 949 Masehi hingga 983 Masehi. Pada tahun 959 atau 960 Masehi, Perdana Menteri Rayy yang dilantik oleh Adud ad-Dawlah meminta al-Khazin mengukur sudut tidak tepat gerhana iaitu sudut di mana permukaan rata atau datar yang muncul pada matahari untuk bergerak ke arah garisan Khatulistiwa di bumi.

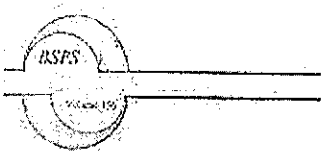
Selepas pengukuran dilakukan, al-Khazin berkata: "Saya menggunakan cincin yang saiznya kira-kira empat meter untuk mengukurnya." Salah satu hasil kerja al-Khazin iaitu Zij al-Safa'ih telah dinobatkan sebagai satu kejayaannya yang terbaik dalam kerja lapangan yang akhirnya menjadi bahan rujukan utama saintis lain. Kerja itu menggambarkan peralatan astronomi dan salinannya telah dibuat di Jerman pada waktu Perang Dunia Kedua. Al-Khazin pernah dikritik oleh al-Biruni yang menuduhnya mengeluarkan kenyataan yang tidak perlu berhubung ulasannya terhadap teori aloi oleh Ptolemy.



Hanya satu bahagian kecil daripada ulasan itu dapat diselamatkan iaitu yang mengandungi topik perbincangan al-Khazin mengenai pendapat Ptolemy yang menyatakan alam semesta adalah berbentuk sfera. Hasil kerja al-Khazin dikatakan banyak dipengaruhi oleh motivasi yang diterimanya daripada ahli Matematik, al-Khujandi.

Al-Khujandi mendakwa berjaya membuktikan bahawa $x^3 + y^3 = z^3$ adalah mustahil untuk semua nombor x, y, z. Selain itu, al-Khazin telah mengusulkan model solar yang berbeza daripada Ptolemy. Beliau mempunyai pendapat yang berbeza mengenai model solar yang dikemukakan oleh Ptolemy yang menyatakan bahawa pergerakan matahari adalah mengikut kitaran seragam yang bukan berpusatkan bumi.

Al-Khazin yang tidak setuju dengan model itu mengusulkan satu model yang mana menurut beliau, matahari bergerak dalam satu pusingan yang berpusatkan bumi. Beliau meninggal dunia pada tahun 971 Masehi.



The Development of Arabic Mathematics: Between Arithmetic and Algebra

Roshdi Rashed

SALAH satu buku yang membincangkan mengenai Al-Khazin.

TAHNIAH diucapkan kepada En Mohd Agos Salim Nasir kerana berjaya membentangkan kertaskerjanya yang bertajuk '*Numerical Solution of the Derivative Linear Goursat Problem*' di Bandung, Indonesia pada bulan November 2004 yang lalu.