



UCSD Pre-Dental Society Newsletter

Volume 6 | Summer 2014

Greetings!

We are now in our 15th year as a program! It is amazing to see how much our program and its volunteers have grown and changed over the years

Congratulations to 50 of our students who were accepted into professional school this year, bringing our total to approximately 690. I am proud to say that many of my initial students are now in community health centers, residencies, the military and private practice.

Our Lemon Grove Clinic is now up and running. We screened and evaluated almost all students at Lemon Grove Academy, a public preschool to 8th grade, and provided care when needed. We also gave a one-week elective class each semester for 7th and 8th graders about dentistry and the health care professions. These children come from an underserved area and we emphasize the importance of good health and nutrition as well as staying in school, going to college, and thinking about careers in health care, especially dentistry. The children come to understand that by staying in school, they will have more options when they become adults. The opportunity to teach also inspires pre-dental students and shows how they can help others not only through dentistry, but through other community service activities.

Internationally, we participated in Pacific Partnership 2013 with the US Navy through which we went on the USS Pearl Harbor to the Oceania Islands. We did engineering projects and dental projects focused on building host nation capacity through providing educational seminars. Unfortunately, most planned missions were cancelled due to the sequestration and budget cuts. Instead, we worked with governments and organizations in Jamaica and the Dominican Republic to perform outreach and improve capacity. We continued our work with the Rotarians in Mexico and help with Thousand Smiles and NorCal dental health projects. We have a new project with the Flying Samaritans and support a dental clinic by providing volunteers, equipment and supplies monthly in Ensenada, Mexico. We have also been asked to partner with Africa Mercy.

One of the newest successes of our program is a HRSA Faculty Development grant in which we enroll 15 faculty members from dental schools across the US each year. We are in our second year and have had new faculty all the way up to experienced faculty including deans participate. This grant tries to give people the tools to work with the underserved, and to teach and inspire their students to work with the underserved. The course consists of three one-week sessions given in San Diego. If you know of anyone who might be interested, we are taking applications, so please contact me.

We are also expanding the spots for other universities to rotate their senior dental students through our clinics. We will soon have six affiliation agreements with dental schools. We have also broken ground on our fifth student-run free dental clinic at Veteran's Village to help underserved veterans. This is a partnership with the San Diego County Dental Health Foundation and Veteran's Village of San Diego.

In 2015, the US government will send the USNS Comfort Hospital Ship to 11 countries in South and Central America and the Caribbean. They will also send the USNS Mercy Hospital ship to Southeast Asia and the Oceania Islands. We are now soliciting volunteers, both professionals and students, from all healthcare fields, engineering and translators.

We are always looking for new ideas for ways to improve our programs and stories about our past members. Funding has become a critical issue for us. If you hear of any grants, please let us know. If you wish to make a donation, it is fully tax deductible.

I hope that this year finds everybody in good health and good spirits. I look forward to seeing all our friends and supporters in the next year. If you need any further information about our programs, I can be reached at dsilverstein22@cox.net.



Director's Letter

Irvin B. Silverstein, DDS, MSED
UCSD Pre-Dental Society
Director & Advisor



Volunteer Spotlight: Dr. Melanie Parker

Dr. Parker has been creating beautiful smiles in San Diego since specializing in orthodontics at UCSD. She is a board member for the San Diego County Dental Society, and has previously worked on animals while at Marine World/Africa USA. As a regular volunteer in our clinics, and special speaker in the past, we are pleased to share her experiences, hobbies, and advice.



PDS Editors: Thank you for taking the time to do this interview. Why should students get involved with a community clinic such as UCSD's?

Dr. Melanie Parker: The benefits of students volunteering are multiple, especially at the UCSD clinic. Of course the community benefits from the free care, and the local doctors appreciate the framework it creates so that they can volunteer in a meaningful way without having to start it all from scratch themselves, while the students gain some knowledge of their chosen field before they commit themselves fully. Sometimes the biggest advantage comes from finding out early that dentistry isn't really for them after all. Dental schools know that students from our program have real life experience and are passionate about dental care. There is also a greater chance that the

students that have experienced the satisfaction gained from helping others will seek a way to volunteer after they graduate from dental school. All these factors contribute to making our clinic volunteers very attractive candidates for dental school admission.

PDS: What inspired you to pursue dentistry?

MP: I was convinced by an employer that I should pursue a career in dentistry. I was an assistant to Dr. W. Paul Brown in his endodontic practice while attending college classes at night in Palo Alto. I had a background in art and science, and I loved the diagnostics as well as the patient contact. He thought I would make a good dentist so I decided to give it a try.

see VOLUNTEER SPOTLIGHT, Pag 3

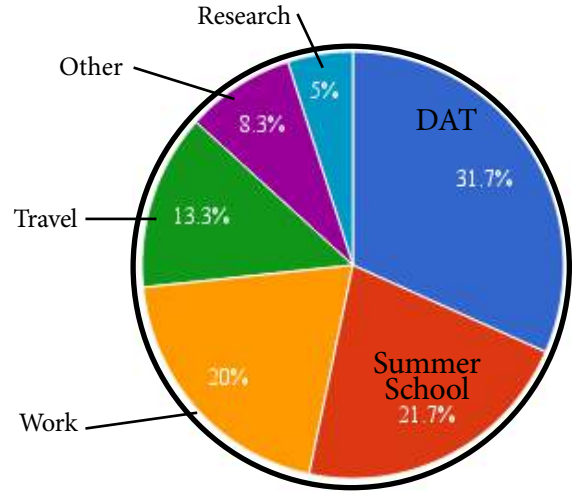
■ Dr. Melanie Parker and lion friend (LEFT).

PDS member Jonathan Gao observes in a simulation lab (RIGHT). PDS students visit Michigan to check out prospective dental schools. (FAR RIGHT)



Summer Plans Survey:

Summer is now in full swing. Wondering what you should do the rest of this summer? Before you hit the beach, consider travelling abroad, working in a dental office, or studying for the DAT! Here's a taste of what some UCSD pre-dental students accomplished this past summer.



A Visit From Congressman Scott Peters

By Andrew Lum and Jonathan Gao

In May, Congressman Scott Peters spoke to the Pre-Dental Society as part of a special lecture that would influence students moving forward in their careers. Students and professionals from all health and law fields were invited to hear Peters' background and learn more about his position on current bills in Congress. Everyone was encouraged to participate by asking questions, and a small reception was held afterwards.

During his speech, Peters gave some background about his life. He was originally from Ohio and earned his degree from Duke University through work-study and student loans. As such, he offered valuable insight on the current status of government loans for

many students heading into the health professions and noted the importance of lowering the debt of graduating students.

Students of all backgrounds found this portion of the speech truly thoughtful and inspiring. Jenny Huang, a manager in the PDS free clinics, thought Peters made it clear that his focus is on improving the quality of life for people in San Diego. "He does this through his passion for the environment, creating jobs and solving problems that arise throughout the city," Huang said.

The congressman told the students about his unexpected path to Congress which started as an environmental lawyer then moved into participation in the local San Diego government. Within San Diego, Peters served on the City Council, as City Attorney, and on the Port Commission.



Peters has had a great impact on the San Diego community and stated that PDS is also an important part of the community.

Collectively, students were very grateful for the Congressman's visit. We can all see the importance of taking a more active role in politics, no matter what our profession.



New Clinic at Lemon Grove

By Nicole Tasooji and Tommy Borderi

The Lemon Grove Student-Run Free Dental Clinic has become an integral part of the Lemon Grove Academy and surrounding community. This clinic serves as a dental home for the many underserved elementary and middle school students who would otherwise not have access to care. The student members of the Pre-Dental Society at UCSD, who are the manpower, heart, and soul behind the clinic, are able to gain hands-on experience in the dental field while making a positive impact in the community.

Additionally, the student members serve as role models to the elementary and middle school students. Many of our student members come from diverse backgrounds and grew up in families of low socioeconomic status and

therefore serve as role models that the elementary and middle school students can relate to and draw inspiration from.

Through volunteering, pre-dental students learn to serve a community, not only through healthcare, but also education. The students also learn from the community, which will make them more aware and culturally competent healthcare providers.

As part of the UCSD pre-dental society, both of us were very interested in working in public health and we were very involved with the development of this clinic. We had the opportunity to see how the federal, state, and local levels all collaborate to address the access to care issue and the steps involved to develop a free clinic. Needless to say there were many

challenges and bumps in the road, but having the opportunity to understand the challenges one would face when developing a clinic and learning how to overcome them, will greatly help us in the future.

This year has been one of extensive growth for the Pre-Dental Society at UCSD. We would like to express our sincerest appreciation and gratitude to everyone who make this organization the best that it can be.

It is through this contribution and commitment we are able to help the underserved communities of San Diego and offer the highest quality dental care to those in need, as well as mentor and inspire future students to stay in school and pursue careers within the dental profession. This helps ensure that the next generation of dentists understands the importance

VOLUNTEER SPOTLIGHT (continued)

PDS: What was your favorite part of dental school?

MP: My favorite part of dental school was the day that – after two years of medical school classes- I finally was doing some real dentistry, and I was actually good at it. What a relief! Dental schools start students in the clinic much earlier now, but we did almost exclusively book and lab-work for the first half of dental school.

PDS: What is one challenge you've faced in dentistry, how did you overcome it, and what advice might you have for others in a similar situation?

MP: One of my instructors told me that once I graduated, the orthodontics would be the easy part. For the most part that has been true. My biggest challenge in dentistry came soon after I purchased my practice. It was entangled with a management contract with a company that went bankrupt six months after signing the contracts. A lot of money and lawyers later I was able to buy my way out of the contract and own it outright, but it could have gone rather badly. I can't tell you to run from corporate dentistry, but read the contracts very carefully, and know that in

a bankruptcy situation, the contracts mean nothing.

PDS: What hobbies/activities best prepared you for your career in oral health?

MP: I didn't know it at the time, but beginning my education in art and exploring psychology before heading into the biological sciences gave me excellent preparation for dentistry. My art "hobbies" were metal-smithing and ceramics which have given me good eye-hand coordination and a keen eye for symmetry in three dimensions. Psychology is always helpful when dealing with people and patients. Ideally it would have been helpful to have some business background in college, but I have picked that up along the way.

PDS: You seem to enjoy the outdoors, do

you have any experiences that stand out?

MP: I have had so many fantastic experiences with my travels and outdoor adventures that it's hard to pinpoint one. I've been diving with great white sharks, bitten by a baby lion, wild elephants have trampled through our hotel, a monkey climbed up me to try to steal my sunglasses. I've hiked up Whitney, Half Dome, Kilimanjaro and an active volcano in southern Chile, jumped out of planes, off of bridges and cliffs, rappelled down into underground rivers, scuba dived, skydived, rafted and skied all over the world. Not everyone is interested in doing those kinds of things, but my point is that dentistry – with all of its difficulty and challenges, gives you the freedom and ability to pursue fabulous adventures. It's a fabulous profession – have fun with it!



MOUTHGUARDS WITH DR. BRANT

By Katherine San Jose

A dentist is not only a healthcare provider, but also a community leader. The community of San Diego is very large and involved with various activities from culture, to research, also sports (despite our infamous major league championship deficiency), and so it isn't surprising to find that one of San Diego's very own dentists, Dr. Thomas D. Brant, leads his community in more ways than one.

Some of Dr. Brant's community involvement includes working with several local high schools and colleges to make the athletes their own custom-fit mouthguards. Previously, Dr. Brant invited UCSD's Pre-Dental Society members to the different campuses to take impressions of the teeth of the many athletes, but this time around, the volunteers were able to contribute to Dr. Brant's good deed by helping fabricate the actual mouthguards.

Upon arrival to Dr. Brant's office, students were greeted by his lovely staff

and the fun character of Dr. Brant himself, and began working right away.

We were able to work with dental lab equipment such as a vacuum former machine that molded a silicone material around individual athlete's maxillary stone models. After the material was molded around the models, we trimmed the excess silicone by heating a scalpel with a torch and carefully carving above the gumline. This left us with some rough edges that would be very uncomfortable for the soft tissue inside the mouth.

Therefore, our final step in fabricating these customized mouthguards was to use another piece of dental lab equipment to polish the mouthguards and create smooth, comfortable edges, ready to endure seasons of victory.

This community service was enlightening, provided good manual dexterity practice and revealed the dental profession's artistic side.



I had the privilege of attending Mr. Hunt's Pre-Dental Tooth Waxing Course last year. This course educated me and helped me identify a potential area of improvement. Mr. Hunt's course exposes students to working with a wax medium and provides instruction, personalized recommendations and potentially a letter of recommendation.

Located in UCLA's dental laboratory, I had the weekend to use their instruments to test my manual dexterity as well as my aptitude for dealing with a wax medium. I personally have over four years of working with ceramic sculptures and I was fully confident that this class was going to be a breeze. To my dismay, the exact opposite happened.

The wax is much more challenging to manipulate given the heat temperature of the instrument fluctuates an incredible amount in under .5 seconds while over the Bunsen burner. Developing the right rhythm for wax buildup success is incredibly difficult, and the class allows you to become familiar with these instruments and to find your rhythm.

With over 31 years of instructing at UCLA, Mr. Hunt can observe a classroom of students and within ten minutes identify your individual strengths and weaknesses. Are

you holding your instrument correctly? Do you let your tools warm up too much or not enough? Mr. Hunt approached my station and identified that my issue was not my technique or how I was holding the instrument, but simply a lack of patience with the process. He challenged me to work on 1000+ piece puzzles at home to build patience. I appreciated the individual attention, and since then I have completed countless puzzles and continue to improve my patience.

“ I was fully confident that this class was going to be a breeze. To my dismay, the exact opposite happened.

Mr. Hunt's courses will also built up my confidence in my ability and manual dexterity. I learned that a lack of confidence or training in manual dexterity equates to more time spent in lab than your book studies.

Gaining experience, receiving individualized attention, an building confidence are the reasons UCSD Pre-Dental students have attended these classes for years. This weekend was an extraordinary opportunity guaranteed to give me a leg up in the dental profession.



A Unique Outreach Experience in Cambodia

By Andrew Lum

Upon completion of Pacific Partnership 2012 aboard the USNS Mercy, neither my friends nor I could have predicted what occurred in the days following as we immersed ourselves in the culture of Angkor Wat.

A small figure approached us with poise and innocence, clasping three soft cover novels--all entailing Cambodia's diverse history, from the art and design of temples, to the devastation from the Pot Pol Era. Just one among the many rising youth in Cambodia, his voice resonated with confidence, as though we were destined to buy his books. He was clearly a student, as he recited verbatim his knowledge of world history, leaving us in awe. He was 15 years old and knew more about American history than we did.

The young Cambodian boy had a great personality and came to us over several days trying to sell books. We noticed when he talked that his front teeth were decayed.

We evaluated his teeth and he told us that he had no access to dental care. Our tour guide told us his best friend was married to a dentist. This dentist had been imprisoned as a young man by the Pot Pol Regime. When he was released, he became a student in the first class of the re-opened Cambodian Dental School.

Instead of spending the day among the crowds in triple-digit temperatures,

all six of us (a dentist, two 2nd year dental students, and 3 pre-dental students) decided to help out by taking him to this dentist and paying for appropriate treatment. Between the six of us, we studied his radiograph images, taught him how to brush, and spoke with the local dentist about access to care issues in Cambodia.

The dental office was modern clean and the dentist was knowledgeable. When he went to dental school, there was no dental equipment or instruments. They had to make their dental chairs, equipment and instruments. He showed us some of the original instruments he made from bicycle spokes. He has traveled to Japan, Israel, and Germany to increase his dental skills and is passionate about helping others. Ironically, he too happened to be part of an annual humanitarian effort for the surrounding areas in need.

We frequently encountered the less fortunate during our trip in this rebuilding nation. Sadly, we learned that the boy had been living with his friends since he was three, as his parents were killed in a car accident.

While fortunate enough to be in school, he spends much of his time selling books to tourists. Buying a book may have fed him for a day, but a restored smile would prepare him for a brighter future. What was once a trip overshadowed by the magnitude of Pacific Partnership, now packed additional significance as it showed us the power of compassion.



■ The young Cambodian boy is given oral hygiene instruction. (TOP) PDS with the boy who was treated by the Cambodian dentist (BOTTOM)

ADA New Orleans

By Thomas Borderi

The American Dental Association (ADA) Convention is something that all Pre-Dental Students look forward to each year. It is a time when we can be part of the dental world, gain inspiration from past technology and explore tomorrow's innovations.

Now consider all of ADA's opportunities and add the rich culture and charm of New Orleans.

The city, and its citizens' resilience is apparent by their attitudes and culture which gives "NOLA" its free spirited and lively atmosphere that

attracts so many. Most of us arrived to New Orleans on Halloween, making this an experience all of its own with the streets extra energized.

The 2013 ADA convention this past year was a great learning experience for all of the UCSD Pre-Dental Society members who attended.

We met great people, had the opportunity to share our organization's new projects, and gained a unique perspective on organized dentistry. Each evening we enjoyed great food, great music and great company in New Orleans; for that, we all look forward to ADA 2014 in San Antonio, Texas!



■ Clinic Director Nicole Tasooji and Clinic Manager Norika Kotani explore the booths at ADA New Orleans.



Bright Islands Outreach

By Khanh Ngyuen

This past spring break, 8 of our pre-dental students along with Dr. Sussi Yamaguchi and Dr. Erick Sato traveled to the Dominican Republic on a humanitarian mission with Bright Island Outreach to deliver dental care to populations in dire need. Our diverse team of 40 volunteers consisted of dental students from Arizona School of Dentistry and Oral Health and Roseman University, dentists, hygienists, pre-dental students, and non-dental professionals. We also collaborated with dental educators and students from Universidad Central del Este to ensure appropriate post-operative care and sustainability for our patients.

When we first arrived at the clinic site, the first thing I noticed were people waiting on long wooden pews outside of what seemed to be a small church. Little did they know that their church would be converted into a 12-chair dental clinic for the next 4 days. Although most of the patients were excited to be relieved from pain and to have their smiles restored, they were also nervous since they had never

seen a dentist before. All treatments were performed by dental students, under the guidance of our dentists. Nearly all of our patients had severe cases of tooth decay, dental erosion,

“ ‘Enjuagese y escupa por favor.’ Rinse and spit please, we asked our patients repeatedly while trying to calm their fears.

and periodontal disease. Because oral health closely reflects our general health, I wished we could work with other health disciplines to improve their overall health like we do back home.

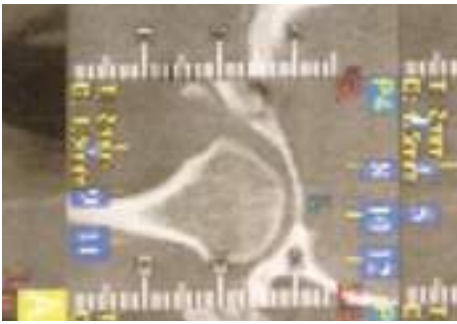
“Enjuagese y escupa por favor.” Rinse and spit please, we asked our patients repeatedly, while trying to calm their fears. Working in jungle-like conditions without water and suction, as well as limited supplies forced us to be patient and creative in treating our patients. Aside from assisting, pre-dental students also helped with triage, tray preparation, sterilization, and

taking x-rays. Some of us also went to nearby schools to apply varnish for children and practiced our Spanish through teaching oral hygiene and good nutrition to the community.

Many of these skills came from volunteering in our student-run free clinics. In the end we saw 165 patients and provided 237 extractions, 110 fillings, and 17 root canals. This experience reminded me of how much need there is out there and how fortunate I am to have been able to help. The people helped me learn and grow more than I think we helped them, and I am very appreciative. Besides working hard in the clinic, we also took time to explore this beautiful Caribbean island.

Our group had a lot fun socializing on a catamaran ride to Saona Island, where we relaxed on the beach, or in the clear warm waters with endless coconuts. We enjoyed delicious food at some of the most beautiful restaurants, and most of us also experienced cliff diving for the first time. Work hard, play hard was our motto!





San Diego Advanced Study Group

By Ian Wolf

An affiliate of Seattle Study Club, the San Diego Advanced Study Group is an organization of select dental professionals who discuss complex, multi-disciplinary cases in a professional environment. During the course of an evening, we observed a case that involved a young woman and her struggle with Temporomandibular Joint Dysfunction (TMJD) and excess gingival display. What at first seemed like a routine case of TMJD soon turned into a discussion

of treatment possibilities encompassing the whole spectrum of dental care.

We rotated through various rooms and listened to renowned specialists describe their diagnosis and proposed treatment plan. This exposed us to the overlapping care provided by general dentists, orthodontists, and maxillofacial surgeons. Each had a unique perspective, presenting 3D computer models and panoramic X-rays in an effort to measure distances between facial landmarks to establish a diagnosis of excess gingival display.

This discussion was compelling and revealed the benefits and drawbacks of the various treatment options. In short, there was no one correct answer. Everyone was able to contribute and it was decided that a combination of orthodontic work and future surgeries would be the best strategy. My experience here highlighted the importance of collaboration among professionals dedicated to providing excellent patient care. Although my involvement was limited, my interactions with those attending made me even more excited to be able to treat and diagnose complex dental cases in the future.

Honduras Mission Trip

By Jacklyn Ibrahim

Last summer, Dr. Sergio Rivas Fernandez invited students to embark on a mission trip in Tela, Honduras. For one week in August, we assisted in local clinics and hospitals, experienced new cultures, and witnessed the need for accessible oral health care.

This trip offered us the unique opportunity to compare dentistry in hospital and clinical settings. At the community clinic, patients received all types of care, ranging from pediatric medicine to teen counseling, and dentistry. Working with a single dental chair, the clinic was still able to maximize the number of patients seen by working efficiently as a team.

In contrast, the hospital was more sophisticated and tailored towards complex dental procedures. For example, we treated one patient who had been kicked in the mouth by a horse. During our stay, we were able to assist in providing care and teaching oral hygiene to over 100 patients.

We also participated in a



brigade session, where we temporarily transformed a school outside of Tela into a dental clinic, and triaged patients seeking dental care. Patients came from around the country needing procedures that ranged from extractions to simple cleanings. It was very rewarding to see how our efforts made a big difference to the people in the community.

Most of the people came to the dentist to have a tooth extracted. Often, they were too poor to afford a restoration, so the only option was an extraction. The entire time we were in Honduras, we saw a mere 2 restorations.

As a foreigner, their attitude towards dentistry and oral health care came as quite a shock. This experience showed the power of dentistry to help those in need.



Alginate and Stone Pouring Class

By Lina and Mina Raffo

Last August, our very own Dr. Sussi Yamaguchi taught students how to take alginate impressions and pour stone in order to obtain an accurate replica of a person's dentition, gingiva, and tissue. For this reason, impressions are often called "negatives" of the teeth.

They are used to create a stone cast that can be utilized in orthodontics, prosthodontics, and diagnostics, to name a few. Learning how to take dental impressions is a very important skill to have because these impressions allow the dentist to see how the teeth fit together and provide the best treatment plan.

Each student was able to take upper and lower impressions of their partner's teeth, and receive evaluations from Dr. Sussi. We quickly learned the importance of speed when mixing and placing alginate on the tray because as it hardens it becomes difficult to press into the patient's teeth. After numerous attempts and plenty of dried alginate on our faces we all had our impressions and were ready for the last step.

While preparing the stone mixture, we had to make sure it was well-mixed before pouring it into the impression-- eliminating any air bubbles that would cause inaccuracies. We also used a vibrating machine that helped to evenly fill in the impression. At the end, we all had the opportunity to take our stone models home with us.

This workshop allowed us to develop the skill and technique needed to create a diagnostic tool used in many of our clinics. Understanding how and why impressions are taken gave us a better idea of the overall process when making dentures and crowns for our patients. The best part was taking home the models and studying each other's dental anatomy!



Upcoming Events

9/4/14

California Dental Association
San Francisco Convention

9/11/14

General Body Meeting

9/18/14

General Body Meeting with Special
Speaker

9/20/14

American Association of Periodontology
Annual Meeting (100th Anniversary)

9/20/14

Flying Samaritans Volunteering Event in
Ensenada, Mexico

10/2/14

New Member's Meeting and Potluck with
a Special Guest

10/8/14

General Body Meeting

10/8/14

ADA San Antonio

Every Thursday night until December 11th, we will have a General Body Meeting, possibly with a guest speaker.

Check our website fdc-pds.ucsd.edu for specific times and speakers.

PDS Newsletter Staff
Editor in Chief: Andrew Lum
Managing Editor: Jonathan Gao

DEMOLISH the DAT With these Problems

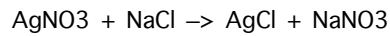
Keyhole

1) A 3-Dimensional object is given to the right. Determine the best keyhole for which that 3-dimensional object will fit through.



Inorganic Chemistry

2) In the reaction of silver nitrate (AgNO_3) with sodium chloride (NaCl), how many grams of silver chloride (AgCl) will be produced from 100 grams of silver nitrate when it is mixed with an excess of sodium chloride? The equation for the reaction is as follows:



- 0.589 grams
- 84.4 grams
- 107.9 grams
- 169.9 grams
- 58.9 grams

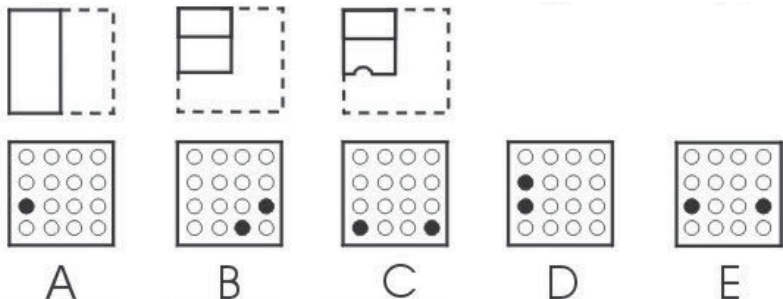
Quantitative Reasoning

3) A cellular phone company offers unlimited data usage for \$149.99 per month, or \$59.99 per month for the first 5GB of usage and 5 cents for each additional MB of usage. What is the minimum number of GB, to the nearest hundredth, a customer needs to use each month to make the unlimited plan a better value? (1GB = 1024MB)

- 1.75
- 1.76
- 6.75
- 6.76

Hole Punch

4) A square sheet of paper is folded, then hole(s) are punched in that folded sheet of paper. Mentally unfold the paper and determine where that square paper has hole punches from choices A-E.



ANSWERS: 1) C, 2) B, 3) D, 4) E

Try and triumph more practice questions at predds.net

