MONASH ADVANCED SCIENCE & SCIENCE SCHOLARS SOCIETY



ISSUE 2

# **Enjoying studying for exams?**

That's a trick question - nobody enjoys studying for exams. Which is why I present to you the next issue of the MASS<sup>3</sup> newsletter for your entertainment!

Note: you should still study for exams. But you should also take a nice break once in a while, and do something relaxing such as read this newsletter. (Also if you are one of those people who do enjoy studying for exams then I apologise for assuming otherwise. But you should still take a break at some point so you don't overwork yourself).

Hope you all enjoy the read! Then get back to work.

### **RIP Number** 0.1–1.7×10<sup>101</sup>

As many of you may be aware, this semester we lost a dear friend to MASS<sup>3</sup> -Number. Number was introduced to MASS<sup>3</sup> by Alex Ingham on October 1st, 2013. MASS<sup>3</sup> and Number immediately hit it off, and soon Number was almost constantly present in the Common Room. This continued to be the way for the next 6 months or so - Number even made an appearance over the summer break when the JAFFY's were introduced to the Common Room. We had so many great experiences with Number, and I think we can all agree that Number's greatest attribute was going up. Nobody could go up like Number. And nobody could make Number go up faster than us. Whether it was through clicking the mouse or throwing gloves at the smartboard, we could help Number go up faster, and Number could help us to make Number go up faster - the perfect mutualistic relationship. A few months ago we wouldn't have been able to imagine Number not being a part of the Common Room, but unfortunately Number's time came to an end. The cause of death is unknown, and while there were some accusations of murder, Number's death may always remain a mystery. In the end we should not focus on his death but focus on his life and remember how much fun we had making Number go up.

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Thanks to everyone who helped me -Kieren, Merrilyn, Keith, Ethan, Josh everyone who gave me links and info for page 8, and Riley, Jake, Ben and Keith for allowing me to use them in my riddle.

- Luci

## **President's Report**

### Hi folks!

Our first semester of 2014 is over, and exams are on the horizon. I hope you have all enjoyed your years so far, and that you first years have enjoyed your first taste of uni!

This year we've had introductory barbecues and a beautiful Trivia Night put together by our wonderful events coordinator Nisha Duggan, which I hope you all enjoyed. But that's not all yet: we'll have more events next semester. If you have any ideas for something you want us to do, come speak to Nisha or any other committee member! I'd like to also thank the rest of our committee for helping keep the club running, specifically Kieren Watkins for his outstanding financial work, Luci Aulsebrook for putting together her second newsletter for the year and Michael Khng for being the most helpful secretary I could hope for. As for the others: I love you guys too, and the club wouldn't exist without each and every one of you and your help. Here's to another great semester, and good luck with exams!

> Your President, Josh Marlow



### MASS<sup>3</sup> Website and Facebook

As always, don't forget about the MASS<sup>3</sup> website, where you can find club information and news, contact details and most importantly an archive of all the newsletters from the past few years.

URL: http://masscubed.com

If you haven't already, make sure you join our facebook page, where you can get the latest club news as well as share and discuss ideas or internet links.

Facebook URL: <a href="https://www.facebook.com/groups/masscubed/">https://www.facebook.com/groups/masscubed/</a>

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# **UPCOMING EVENTS**

All of this semester events have been and gone... But fear not, next semester will bring a new series of events, so here is a sneak peak of some events to look forward to in semester 2!

# Movie Night

At some point next semester we will have our annual MASS<sup>3</sup> movie night! This is where all MASS<sup>3</sup> members, whether new or old, are invited to gather in the common room after uni (6pm onwards), and watch a movie together (shown on the smartboard) whilst eating pizza and drinks provided by the club. Sometimes you guys even get to vote on what movie will be played! Stay tuned next semester for details.

## Science Industry Night

This is a night where you can learn about a diverse range of careers in science. A variety of employers and Monash alumni will be present, representing a range of industry jobs and scientific fields. You will have the opportunity to hear about their science related jobs and ask questions about what it's like working in the industry. Students from all year levels are encouraged to attend as it is a great opportunity to help you decide what you want to do and to find out what your life after uni could be like.

## More Study Nights

Hopefully you attended our study nights last week, and if so you'll know the drill! But regardless of whether you attended or not, there will be more study nights next semester, where you can stay late in the common room studying, eating provided food and perhaps discussing any difficulties you run into with some of the older students.



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### **TRIVIA NIGHT 2014**









Once again, MASS<sup>3</sup> has held its annual trivia night, and as usual, wild costumes, crazy tasks and general hilarity ensued. This year's theme was 'Back in Time', resulting in costumes from a variety of eras and science-fiction movies.

The winning team of the night was 'A Blast from the Past', comprising of old MASS<sup>3</sup> members in their honours year or beyond. For the first time in years the losing team was not a JAFFY team but in fact 'Dr Pepper', a team of second years (boo). Congratulations to the winning team but even more so, a huge congratulations for the people who hosted and organised the night - Nisha Duggan, Josh Marlow and Lianna Beeching for making it a huge success







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One of the tasks was for each team to make a 'toilet paper wedding dress' on one of their team members.









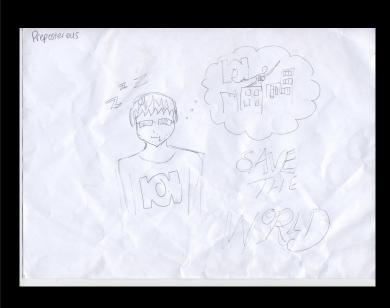








The winning picture by A Blast from the Past



Another Trivia Night tasks was for each team to draw a picture of Josh. These are what some of the teams came up with.

(An) IT'S A BIRD IT'S A PLANE NO, IT'S JOSH'S PENIS STRATEGIC SHIELDING (big shield Nelessary) \$ - lack of pants 94 11 1 Sam

### **Employment and Careers Development**

The service you always hear about but never use

Hey guys, so I'm sure by now you've heard about the Employment and Careers Development team at Monash, but you may be wondering why you should care that they exist.

First of all, they're there for us, and Monash University wouldn't be paying them in these tight conditions if they weren't considered valuable. The reason why you hear about them so often is because they're probably underutilised at the moment and so they're investing a lot of energy and paying MASS<sup>3</sup> to advertise for them! This is your chance to have your resume tightened up ready for jobs that swing your way! This is your chance to get career counselling! This is your chance to network with people who you'd like to work with in the future! It may sound distant but the earlier you get started the better prepared you'll be when you actually graduate. Ask any third year or honours student in the common room – first year is the best year to get started because you've got the most free time on your hands (yes my poor JAFFYs – it gets worse).

When ECD interviewed graduates of Monash, the one key message they tried to get across was to 'get involved' because there's a lot of opportunities at Monash to buff up that CV but even more importantly, get experience in things you haven't done before. Join a club or better yet, become a committee member. It can be as simple as being a general representative (gen rep) where you show up to meetings and have your ideas heard. Or if you're audacious like some outstanding members, then you can be a treasurer for a club – or if you're brave, two!

I'll get off your back in a second and let you get back to the more important activities of your day like checking out the latest viral vid, but if you're at all interested in going on exchange, talk to the guys at Monash Abroad. We even have an employee of theirs who frequents the common room every so often: our very own Laura Driesser. ECD managed to interview the participants of exchange programs and found that a whopping 86% thought their time abroad was one of the main reasons for their employment – so get on it. Rachael Turner is one of our stars who's going abroad next year so bug her if you're thinking about it – the application might not be as daunting as you think!

Well, that's all from me folks. Kieren

# Scientific Articles by MASS<sup>3</sup> Members

Every wondered what former MASS<sup>3</sup> members (or even current) get up to? Below are some published articles by previous and current MASS<sup>3</sup> members. Some articles may only be accessible with your Monash authcate.

Jamie Selby-Pham (President 2007-2008) - Honours 2008 "A novel pathogenesis-related protein (IcPR4a) from lentil, and its involvement in defence against Ascochyta lentis" *Phytopathologia meditteranea* 2013

http://www.fupress.net/index.php/pm/article/view/11791

Phillip Starkey (Webmaster 2007-2008, Education Officer 2009-2010), Chris Billington (Treasurer 2007-2009), Shaun Johnstone (Vice-President 2007-2008, President 2009, Webmaster 2010) - Honours 2010 "A scripted control system for autosome hardware-timed experiment", *Review of Scientific Instruments* 2013 <u>http://scitation.aip.org/content/aip/journal/rsi/84/8/10.1063/1.4817213</u>

Lisa Bennie (Editor 2008, Events Coordinator 2009), Phillip Starkey, Chris Billington - Honours 2010 "A versatile high resolution objective for imaging quantum gases" *Optics Info Base* 2013 <u>http://www.opticsinfobase.org/oe/abstract.cfm?uri=oe-21-7-9011</u>

Chris Hendon - Honours 2010

"Conductive metal-organic frameworks and networks: fact or fantasy?" *Physical Chemistry Chemical Physics* 2012

http://pubs.rsc.org/en/content/articlelanding/2012/cp/c2cp41099k#!divAbstract

Rory Speirs (Editor 2007, Secretary 2008-2009) - Honours 2010 "Photoacoustic tomography using a Mechelson interferometer with quadrature phase detection" Applies physics letters 2013

http://scitation.aip.org/content/aip/journal/apl/103/5/10.1063/1.4816427

"High-Coherence Electron and Ion Bunches From Laser-Cooled Atoms" Microscopy and Microanalysis 2014 http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=9243490

Nicholas Chilton - Honours 2011

"Redoc and acid-base properties of asymmetric non-h (hydr)oxo-bridged diiron complexes"

http://www.researchgate.net/publication/262530761\_Redox\_and\_acid-base\_properties\_of\_asymmetric\_nonheme\_%28hydr%29oxo-bridged\_diiron\_complexes

Lianna Beeching (Editor 2013, Vice-President 2014) - Current 3rd Year

"The influence of anion, ligand geometry and stoichiometry on the structure and dimensionality of a series of AgI-bis(cyanobenzyl) piperazine coordination Polymers" *CrystEngComm* 2014

http://pubs.rsc.org.ezproxy.lib.monash.edu.au/en/Content/ArticleLanding/2014/CE/C4CE00816B#!divAbstract

And now, some interesting articles of the less scientific variety by MASS<sup>3</sup> members:

Annie Aulsebrook (Editor 2011-2012) - Honours 2013 "A Zoo's Solution to the Palm Oil Problem" The Australian Geo Times 2014 http://www.theaustraliatimes.com/emagazines/geo/issue101/#p=22

Andrew Wright - Honours 2014 "Rattlesnakes: a Lloyd Cole Primer" *Tastebreaker* 2011 (a music article) http://tastebreaker.tumblr.com/post/11255171538/rattlesnakes-a-lloyd-cole-primer

### Keith Says

Brought to you by Keith



Hello my fellow mass cubians! In this newsletter, I start a segment I like to call, "Keith Says". You see, Keith has a lot of things to say, and not much of what he says makes sense. So, let's get down to the bare bones of it all and figure it out!

Most recently, Keith said "kerflunkle" - but what IS "kerflunkle"? Well,

"kerflunkle" is a sort of pseudo compound word which can be broken into three parts - "ker", "flun" and "kle".

Ker most likely stands for "kernel", which one would assume relates to popcorn. However, in this case it actually relates to a "kernel" in a mathematical sense. "Kernels" themselves relate to subspaces in his maths unit, and he doesn't really understand them. So, we can assume that this part of this word relates to something "annoying".

Flun is something that's fun - in fact, this one is super fun! It has an extra letter in it, and trust me, "flun" is infinitely more fun to say than "fun". Try it out! (Note: "flun" must be spoken out loud to feel the full effect. Just do it in the common room, we already think you're a weirdo).

Finally, we reach "kle". Kle could mean anything - the end of a sprinkle, or the start of a Cleopatra. Let's go with the end of a sprinkle seems much more Keith like, don't you think? So, putting all this information together, we have "something annoying", "something super fun" and "end of a sprinkle". The obvious conclusion is that Keith has just finished doing some light work which was both super fun, yet super annoying - he probably forgot to vaunt.

## Reliable and Completely Accurate Horoscopes that will Come True

### Disclaimers:

Take advice at own risk. If it's not coming true, you're interpreting it wrong.



March 21 - April 19

Little Aries, you've been too quiet! This month, it's time to say every thought that comes into your head. Loudly. Lecturers will be inspired by your interaction as you question the relevance of their content and critique their fashion choices. And if anyone asks you to be quiet, laugh at their stupidity at thinking they could read your thoughts; it's not a book. Yet.



April 20 - May 20

Peel off your (metaphoric) layers and go for a (metaphoric) swim in the icy cold (metaphoric) waters of renewal. Just make sure you (metaphorically) blow dry your hair afterwards so you don't get sick. Metaphorically, that is.



May 21 - June 20

This month, you will experience a mutual attraction with all things orange. Think carrots, highlighters, some kittens, specific parts of the mural in S3, and of course, everybody's favourite fruit: oranges. Make sure you make the most of this by learning to say "orange" in 10 different languages; there will be a pop quiz in one of your lectures. Oh, and keep an eye out for goodlooking gingers. Just saying. By Merrilyn McKee

🕵 Cancer

June 21 – July 22

Let the illuminati guide all your decisions the little triangle knows all. So as to not be confused by the abundance of this fabulous geometric shape, only follow those which have lovely 60 degree angles. Isosceles what you're thinking.



July 23 – August 22

August 23 – September 22

It's time to make bold, drastic changes in your life. I suggest changing your shoelaces. Or ordering a different kind of coffee. Or maybe even changing your major - every two weeks. Regardless, if you live greater than 5 km away, ditch public transport for the new, edgy way to get around town: Pogo sticks.

A great change is coming your way. But do

I mean 'awesome' or do I mean 'large'? Or do I mean both? Ooohhh, shifty like equi-

librium. The answers you seek are in intelligent calcium. Find some and interrogate

it. Look around you, and make sure you

fill in your log book. You, my friend, also

trucks rule. And if you don't understand

these references, you have not yet been

get the benefit of some exam advice:

common-roomed.

Virgo



September 23 – October 22

All the answers to your problems revolve around this sentence: "I saw three ships come sailing in". Meditate on this thought, create a few paintings, and write it as the heading for all of your assignments. Think: "Linear algebra and number theory: I saw three ships come sailing in". Mmm. High distinction material.



October 23 – November 21

Danger is coming your way unless you take a few simple precautions: Avoid the long grass Carry your Pokéballs with you at all times DO NOT TRY RIDING YOUR BIKE IN THE MIDDLE OF THE OCEAN You have been warned.

Sagittarius November 22 - December 21

Technology has been taking over your life, admit it. Try this handy little trick: defriend all those people whose names aren't composed of the same letters as yours. Message remaining friends with an invitation to join you in a scrabble party. Defriend those who don't reply within the next two minutes. (For an extra challenge, also defriend those

who don't share the same amount of letters as you, and repeat process, substituting 'scrabble party' with 'number party').

Capricorn December 22 - January 19

Hiding under the table in foetal position and muttering to yourself just isn't going to cut it anymore. Take a 10 minute stroll around uni, and count the number of people you see. See if you can find some sort of relationship between the number of people and the volume of clouds in the sky. Hint: you might need to take the log of both sides. Bonus points if you see a rainbow.

Aquarius January 20 - February 18

Flowers are everywhere! It's time to reveal your hippy side and make daisy chains with all your friends. Frolic through luscious fields, and for the extra adventurous, tiptoe through the tulips, through the tulips, through the tulips with me. Word of warning: don't partake in above activities with friends who have hay fever.



### February 19 - March 20

After finishing this sentence, you must shut down the computer and run out of the room yelling nonsense about aliens but don't think I'm going to let you do it just yet; you must continue reading while I recite all the words I can think of in this present moment: laptop, computer, homework, aliens, science, common room, work, enthalpy, entropy, chemistry, aliens, biology, plants, aliens; it's time to go! ... why are you still here? YOU DECEIVED ME.

The following quotes were heard from people in the common room, many taken out of context to add humour. Enjoy!

"Real analysis is just real numbers in a French accent." "He's an elderly guy with arms."

"It's pretty much a role playing game made into an RPG."

"I never actually touched his penis."

"Everything to do with the common room is cult-like."

"Mentors need someone to ment."

"I lost my nipple."

"I... wanna do Czaba."

"You're foreign. In a non racist way."

"Oh I'm eating a piece of shit but it's got a piece of candy so it's okay." ~on majoring in statistics and pure maths

"I would market nicotine patches to children."

"It's surprising I don't have a harem yet!"

"It's like a gap year, but cuter."

"I stalked quite a lot of people in high school."

"If I let her live out her fantasy she buys me things."

"I think it's okay if we get put on a watch list."

"What's a vector?"

"I usually wear nothing."

"We were all one collective children."

"Didn't Nobel invent the atomic bomb?"

"We can all be buggered together."

"Long story short, you can see my dick now."

"I didn't know there were female mathematicians."

"What's a penis?"



I was recently diagnosed with Vasovagal Syncope, and now every time I have a bowel movement I pass

out. What do I do? From John Dorían

Dear John Dorian,

Well, you've already said what you do—you pass out every time you have a bowel movement. I'm not really sure why you felt the need to mail me a question that you clearly already have the answer to. But thanks.

The Editor

#### Dear Readers,

What word means a thing that pertains to the thing to which the thing originated from before the thing came to be?

Sincerely, Linguistically challenged Dear Linguistically challenged,

I think the word you're looking for is 'cumquat'.

mac

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Your welcome. The Editor

#### Dear Readers,

For all you mathematical and physics-y fellow nerds, what is the best angle in which to defecate into a toilet seat? I would like to make my faeces splash back as minimally as possible. This would make my pooping experience very pleasurable. Any help?

Sincerely, Severely constipated Homo sapien

Dear Severely constipated Homo sapien,

The trivial solution is not to defecate. Ignoring this trivial solution, the optimum angle can be found using a trial and error method (not the most elegant method, but the most practical for our purpose). The optimum angle may vary depending between toilets and also the size and density of the faeces, but I have found my optimum angle to be generally around 58° from the back of the toilet. If this does not satisfy you, however, you can always invest in a chamber pot and slave.

Sincerely, A fellow nerd

Got a question? You can submit it anonymously by sending it from the MASS<sup>3</sup> advice email!

Username: mass3secret@gmail.com Password: mass3#swag

Then email lcaul1@student.monash.edu

# Puzzles and Riddles

Someone wiped the highscores of 'Happyland Kings Carnage', the current game people are playing on the smartboard. We narrowed the suspects to the people who were in the common room in the hour that the wiping occurred: Keith, Riley, Ben, Luci and Jake. Each of the suspects gave three statements, two of which are true and one which is false. It is your task to determine who wiped the scores and punish them by making them your chamberpot slave (see page 13).

#### Keith

- I. I didn't do it!
- 2. I've never played Happyland Kings Carnage.
- 3. Luci did it.

### Riley

- I. I didn't do it!
- 2. It was done purposely by someone of the common room.
- 3. It wouldn't have been the person with the top ranking score.

### Ben

- I. I didn't do it!
- 2. I had the top ranking score so I wouldn't want to wipe it.
- 3. Luci did it.

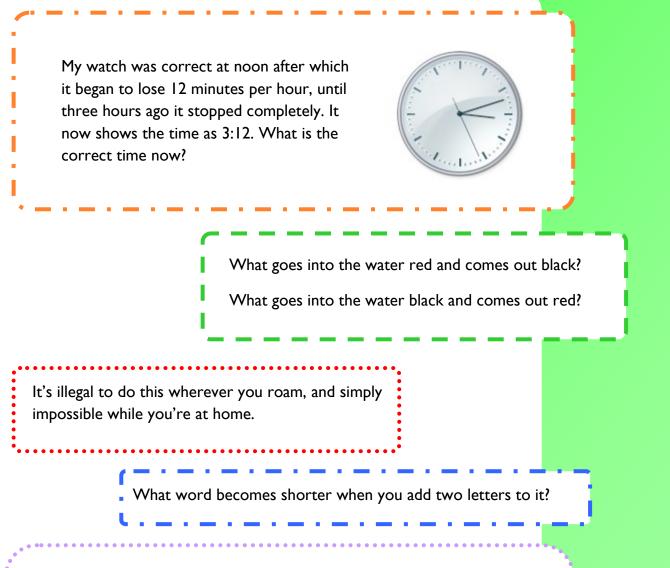
### Luci

- I. I didn't do it!
- 2. Jake did it.
- 3. Keith was lying when he said I did it.

### Jake

- I. I didn't do it!
- 2. Riley did it.
- 3. I had the top ranking score so I wouldn't want to wipe it.

Who wiped the scores?



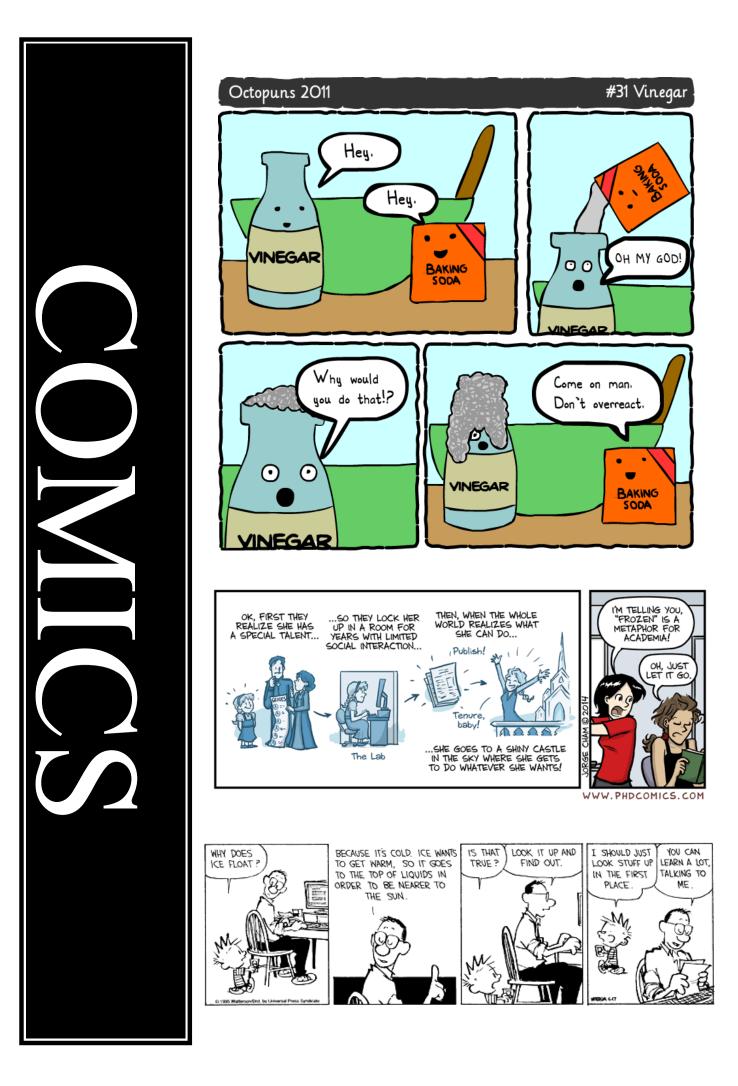
### Answers for previous newsletter (issue 1, 2014)

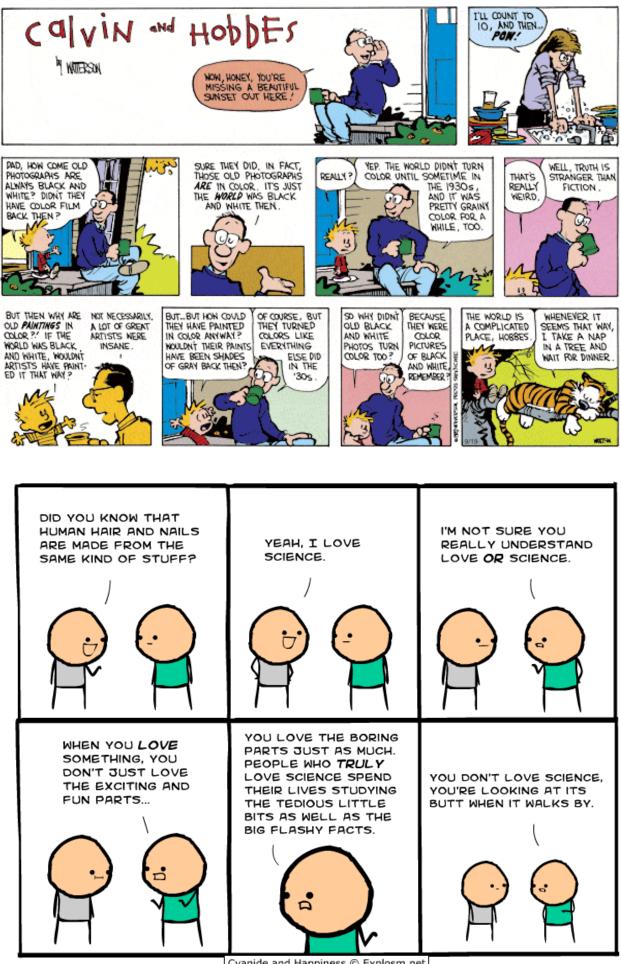
The three numerals are 1, 3 and 5.

There are multiple solutions to this problem, but here is one: Let's say there are only 2 students left (student #9 and #10) - in this case, #9 will keep all the money to himself and #10 will receive nothing. Following on from this, if there were 3 students left, #8 could give \$1 to #10 and keep the rest of the money for himself. #10 will vote for this because if they don't, the decision will pass on to #9, who will keep all the money as we have discussed. If there are 4 students, #7 can give \$1 to #9, who will vote for the decision knowing that he will get no money if #8 gets the decision. Thus, if there are 5 students, #6 can give \$1 to both #8 and #10, who will vote for it because if #7 gets to decide neither of them will receive money. We can see a pattern emerging - the student in charge can give \$1 to every second student and keep the rest for himself. Thus, if you are student #1, you should give \$1 to student #3, #5, #7 and #9, and keep the remaining \$96 for yourself.

The Rubik's cube is hidden under seat I (the third years were lying).

$$(5 - (1 \div 5)) \times 5 = 24$$





Cyanide and Happiness © Explosm.net



