### Freshman Year Schedule of Classes

(All classes meet Monday, Wednesday, and Friday)

•	•	• /	Answer	
8:00-8:50	24.68	Following Directions	S CUT'EM OFF PLACE	• 7 1
9:00-9:50	19.4	Tetraphilia	FOOTBALL PLAY	• 3
10:00-11:00	Lunch			
11:00-11:50	19.7	Cryptography	MOVE IN FRONT	
12:00-12:50	14.12345 / MAS.678910	Material Acquisition	DON'T BID	• ( )
1:00-1:50	19.5	Cryptic Cruciverbalis		. 7 V
2:00-2:50	12H.1	Historical Figures	NAWCY REAGAN	
4:00-4:30	Tea			
4:30-5:20	14.321	Pyramid Schemes	NOT RICH	
5:30-6:20	24.24	Cgntv Lngstcs	ANNIE CAKLEY	- / V
6:30-7:20	19.39	Name Recognition	NEWS REPORTER	71
7:30-8:20	7.51897	Rhodography	NUCLEAR REACTOR	—)
				.ak

All answers either mean "Pass", or have initials "NR" (No Record).

"Extracurricular Activity" answer: CONVERT TO MORSE CODE

Convert PASS TO . ? Convert NR To - }

Freshman Year answer: IVY

In this puzzle, we'll be testing your ability to follow directions. First, let me introduce four friends of mine. For now, everything they say is true, so be sure to listen to them.

Hi, I'm Lydia. When the puzzle begins, do what I tell you only if I give you an even numbered instruction.

Hello, I'm Beth. Once we get started, do what I tell you only if I read an odd numbered instruction.

Greetings, my name is Andrew. Only follow my instructions if you just performed the previous instruction.

And last, but not least, I'm Rich. You should only follow one of my instructions if you did not follow the previous instruction.

You will now hear a series of instructions. Each consists of a number, followed by a command. When deciding whether or not to perform an instruction, follow the rules you were just told. Ready? Begin.  $\sqrt{= \text{De}^{-17}, \text{ } \text{X} = \text{Den}^{-7}}$ 

(Lydia)  $\checkmark$ 0. Write the phrase "Change of Pace" on a piece of paper.

CHANGEOFPACE

(Rich) X 1. Delete the "f".

(Rich)  $\sqrt{2}$ . Move the second letter to the position fourth from the end. cANG = ofpHAcE

(Andrew) \( \sqrt{3} \). Put a "u" between the third and fourth letters.

CANUGEOFPHACE

(Rich)  $\times$  4. Change the "g" to an "o".

(Beth)  $\sqrt{5}$ . Double the fourth consonant.

CANUGEOFFPHACE

 $(Andrew) \downarrow 6$ . Shift the second consonant two back in the alphabet, so "d" would go to "b", for example.

CALUGEOFFPHACE

(Lydia) X7. Reverse the middle three letters.

(Lydia)  $\sqrt{8}$ . Swap the first two vowels.

CULAGEOFFPHACE

(Andrew)  $\sqrt{9}$ . Swap the second consonant with the second consonant from the end. CUHAGEOFFPLACE

(Beth) X10. Remove the "h".

(Andrew) 11. Put the "l" before the second "e".

(Lydia) 1/12. Change the third consonant to an "m".

CUHAMEOFFPLACE

(Rich)  $\chi$  13. Delete every fourth letter starting with the second.

(Beth) X14. Duplicate any substring that is the name of a playing card.

(Beth) √15. Change the "h" to a "t".

CUTAMEDFFPLACE

(Rich) × 16. Swap the fifth consonant with the second vowel.

(Andrew) 17. Remove the middle two letters.

(Beth) X18. Place a "b" after the "c".

(Lydia) X19. Swap the first and last letters.

(Rich) \$\sqrt{20}\$. Drop the first "a".

 $(Andrew)\sqrt{21}$ . Swap the fourth and fifth letters.

CUTEMOFFPLACE

You can stop now.

CUT EM OFF PLACE

### 14.321 -- Pyramid Schemes

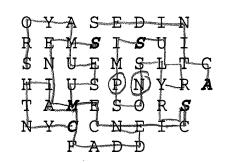
#### Prof. Scott Weiss

Enigmatologists have a special fascination with game shows. In this puzzle, we pay homage to one of our favorites: The \$100,000 Pyramid. In order to get through this course, you'll have to successfully complete the bonus round of that game. As a reminder, this involves two team members. One team member is given a category, and must give a list of things in that category to his/her partner. The other must name the category. Naming things not in the category, or using a word in the category name is an automatic loss of the round. The pair must complete six categories within 60 seconds. If they can't, they'll have to start over with a new set.

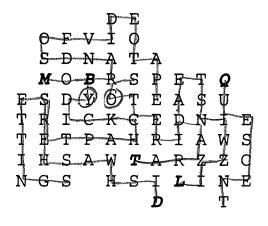
To help, we've provided you with all 42 possible categories, listed in seven possible games. They are in the order that they may appear in the game. (We have a set of first categories, second categories, etc.) In the second category in each set, the full category is "Things \_\_\_\_\_ Might Say". The sixth category (at the top of the pyramid) is of the form "Things that are \_\_\_\_\_". For simplicity, we've eliminated these extraneous words below. For complexity, we've given you the categories in seven grids. You'll have to spell out the names by moving from letter to letter horizontally or vertically, but never diagonally. You can reuse a letter in a category name, but you'll never stand on a letter. We've marked the first letters, as well as given you enumerations for each grid. All letters will be used when you're done (some by more than one category name). (Equal signs are actually hyphens.)

When you feel you're ready, have two team members drop by the Faculty office, and we'll let you play the round. Good luck! Make Dick Clark proud!

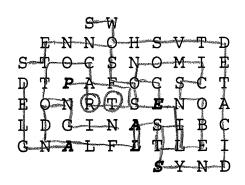
SCIENCE MUSEUMS
CYNTHIA MCEADDEN
ACTIVIDES
MAINE MAYORS
SIMPSONS LYRICS
SULTRY



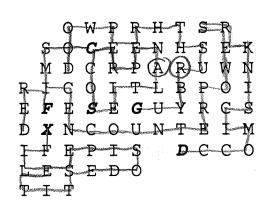
DISHWASHER SETTINGS LLZZ WINSTEAD BRANDS OF VIDEOTARS TARZAN DIRECTORS MOBY=DICK CHARTERS OVIESCENT



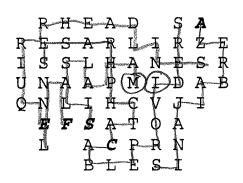
SYMPLEATED TY SHOWS
ALF LANDON
PARTS OF A COITON GIN
ECONOMICS NOBELLISTS
LASI LIMES OF SOMMETS
ANGLED



SOCCER PENALTIES
GUYBRUSH THREEPWOOD
COSMIC ENCOUNTER POWERS
DC COMICS INKERS
FIRED



CATCHPHRASES
SILAS LAPHAM
CABLE PROVIDERS
AZERBAIJANIS
ENQUIRER HEADLINES
FLANNEL



REAL NUMBERS

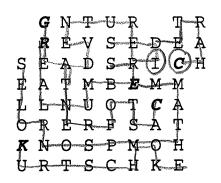
KYRT SCHMOKE

GREAT ADYENTURE RIDES

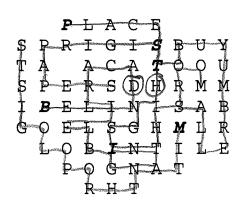
CASI OF RENT

EMMA THOMISON ROLES

CHARTER



THINGS IN THIS ROOM
BELLNDA CARLISLE
PLACES TO BUY UMBRELLAS
MIT ANTHROPOLOGISTS
SIGIR PARERS
INTANGIBLE



Two team mates play the game, for real, in front of Hunt Masters.

After successfully playing, are Told:

"Look To the pyramid's right on the seven grids"

157	arid	has	one	8,	letter	To	the	right	ìS	N
				Y						0
7				R						T
3				Λ						R
4				PT						•
5				1//						C
6				Ö						Н
7										* ***
					(Ale	) **	31C.F	-	TOTAL SECTION STATES AND SECTION SECTI	
					1/00	<u> </u>	1/101			

# **19.7** Cryptography Dr. Ken Olum

INFO

5 EEK

WFBXHZOMWXF, WFBXHZOAAV + MHV MX AXNOMG XH LWINXEGH.

ALTA

NISTA

FZK QSFJQM PQSP KB AMPO + FDPBKFO HJQG ESPBKBC TKSH.

3

TMZG TC COD M JPKAFBFMBL + KYL TMBZAS QW SC XED QYL.

1 2 3 3

HOT

BOT

OPPOSITE OF COLD ABBREVIATION FOR AUTOMATON OR ANDROID VLLVDUQS VX GVOP + IJJASBUIQUVK XVA INQVEIQVK VA IKPAVUP.

Entering "TMZG TC COD M JPKAFBFMBL" as a search string at AltaVista (for example) leads you to the link

http://cosmos2.phy.tufts.edu/~kdo/found-it.html

Which gives:

TMZG TC COD M JPKAFBFMBL + KYL TMBZAS QW SC XED QYL. Welcome, hunters. You have found the right place. 3 1 3 2

Unencrypted/web-site letters numbered

1: MEVO

2: IN

3: ORNFT

Anagram: MOVE IN FRONT

### 19.5 — Cryptic Cruciverbalism

Profs. Jean-Joseph Coté and Scott Weiss

Cryptic crosswords are one of the greatest advances in Enigmatology since the pencil eraser. A mastery of them is key to being an expert Enigmatologist. For those as yet unfamiliar with them, we recommend visiting:

www2.TheAtlantic.com/atlantic/atlweb/wordgame/cluesolv.htm

1 6	2 R	<sup>3</sup> O	***************************************	4 A	5 G	0	6 <i>N</i>	7	5	8	9 S
10 R	Lacente Lacente	D	11 P	R	0	Μ	0	12 R	E	A	P
13 E	P	E		14 //\	0	R	>	-	$\wedge$	G	R
15 V	0	and the same of th	C	C	D	16		5	17 S	18	<u>L</u>
- 1	19 0	<sup>20</sup> /\	A	D	21	Y	22	23	E	Μ	E
0	24 /\	0	N	25   	0	26 V	27	A	28 A	P	29 E
30 ()	P	$\sim$	<sup>31</sup> S		V	Specialist	N	G	32 B	0	×
<sup>33</sup> S	H	ecuspace postana	<sup>34</sup> S	$\sim$	E	E	35 K	36 <i>O</i>	A		A
<b>37</b>	À	) June	<sup>38</sup> P	0	39 S		P	R	<sup>40</sup> N	and the second	M
41 A	***************************************	42 C	0	>	E	43	A	G	44 A	400 Marianista	P
45 R	A	0	46 R	A	Μ	A	D	Α	N	E	Lanner
47 E	S	P	48 E	la constitue de la constitue d	Memoralis	M	<b>O</b> SALDANGER	N	A		

### 19.5 — Cryptic Cruciverbalism

Profs. Jean-Joseph Coté and Scott Weiss

1	A(	JH	O	S	S
g	P	2000	A	Th.	p .

- (PROTAGONISTS)
- 10. Color seen, heard (3)
- 11. Ad for Ms. Gaffney (5)
- 12. Take in chopped-up pear (4)
- 13. Electrical engineer takes gym class' sword (4)
- CLUE (MORNING) 14.
- 15. Spoken part in Provo ice demonstration (6)
- 16. Famous agent, in other words, is monster (6)
- 20. Bond's boss twisted lady in an angry way (5)
- 22. Movie aunt enthralled by the essay (5)
- 24. Vain Moor ransacked capital (8)
- 28. Wild summit cut short (3)
- 30. Network up north (3)
- 31. Repairing building section after scene ends (6)
- 32. Fix fight (3)
- 33. Role for Bergman as topless tennis star (3)
- 34. Hook's helper seems backwards without head (4)
- 35. Knock out, in the manner of an airline mascot? (5)
- 37. Chatter about salary (3)
- (POST) 38. ANSWER
- 40. Change mind after losing poor game (3)
- 41. Vocal about eastern summerhouse (6)
- 43. Pester horse (3)
- Nucleoside at planet's beginning (3) 44.
- 45. Children's book character heard regret (3)
- To hit Mr. Quayle takes a month (7) 46.
- Acronym for eerie seer's power! (3)
- THIS (ELIMINATE)

48A 29D 5D 14A 26D IA ID 38A THIS IS A CLUE TO THE FWAL ANSWER ELIMINATE EXAMPLE GOOD MORNING VIETNAM PROTAGONISTS PREVIOUS POST

1. FINAL (PREVIOUS)

- Take back job for nothing after each returns (4)
- Jon Arbuckle's dog loses one poem (3)
- Packing dream re-interpreted (5)
- (600D) 5.
- No, ten roused 9 (5)
- 7. Sir, I went up for flower (4)
- 8. Touch label (3)
- 9. Peacocks preening about carousal (5)
- 11. Jails holding California nuts (6)
- 17. Escort heard ocean (3)
- 18. Rude fiend tortured Eliot (8)
- 19. Shampoo lathered about Lila's front, center (8)
- 20. One in my dough (5)
- 21. Actor Rob sounds depressed (4)
- 23. British bog witch (3)
- 25. Williams-Kilmer-ectomy? (7)
- TO (VIETNAM) 26.
- 27. Desk accessory in King home (6)
- IS (EXAMPLE) 29.
- 32. Fruit ban on an Argentine (initially) (6)
- 34. Twirl ropes to get plant product, perhaps (5)
- 36. Periodical instrument (5)
- 37. Trim couple, so we heard (4)
- 39. Truck limes up, losing fifty (4)
- 42. Steal policeman (3)

### Extracurricular Activity -- Skeet Shooting Club

Faculty advisor: Scott Weiss

To relieve the stress of the freshman year, you've decided to take up skeet shooting. The words below are your targets. The questions below them eliminate twenty of the words. The remaining four will give a helpful hint for the "required" freshman year puzzles. Oh, one more thing...nah, you'll figure it out yourself. Change one letter in each word.

2. PLANES PLANET 16. BRAVE BRAVO 19 PLATING ELATING 15 CHILL CHILD 6 PRANCE PRINCE 10. COLLAGE COLLEGE 7. COMMITTED COMMITTEE 14 PRAY XRAY CONCERT CONVERT 5. PUNT AUNT 13. ROBIN RODIN 20. DEPORTING DEPARTING RODE CODE DO TO 4. EVALUATE EVACUATE 12 SALOON SALMON 8, SLAKE SLATE L HEARD HEART 12 SPLITTER SPLINTER 3. LESTER LETTER MOUSE MORSE 18 TRACE TRUCE IL WORDY WOODY 9. MUDDY BUDDY

#### Which word:

- 1. anagrams to the name of a planet? HEART -> EARTH
- z. appears elsewhere in these questions? PLANET
- 5. becomes a new word when you remove both Ts? LETTER  $\rightarrow$  LEER
- 4. becomes its own synonym if you drop its first and fifth letters? EVACUATE -> VACATE
- 5. becomes the name of a fish if you swap the letters on its ends? AUNT > TUNA
- 6. changes gender by having SS added to the end? PRINCESS
- 7. contains three pairs of double letters? COMMITTES
- 8. forms new words upon removing its first, second, or both first and second letters? 5LATE SATE
- 9. has been a name in the news of late? Buopy (Not a human being)
- has the same cryptographic pattern as FLOODED? COLLEGE
- is a first name of a famous director with the same cryptographic pattern as the director's last name? woody (ALLEN)
- 12. is also the name of a fictional rat? SPLINTER
- is a name sounding like a famous film monster? RODIN (RODAN)
- 14. is Pig Latin for a name meaning "king"?  $\times kAY$
- is pluralized by adding three letters? CHILD -> CHILDREN
- 16. is the name of a cable channel? BRAVO
- is transformed to a new word when its first letter is changed to a D and moved to the end? SALMOND
- 18. sounds like a word meaning "gospel" when pronounced with a lisp? TRUCE (TRUTH)
- spells a word meaning "jelly" if its last letter is moved to the front? ELATING -> GELATIN
- 20 uses all the letters that appear in the last seven words of a popular Christmas song? DEPARTING

  (AND A PARTRIDGE IN A PEAR TREE)

Remaining words, in order: [CONVERT TO MORSE CODE]

# **Sophomore Year**

Welcome to your second year of study in the Enigmatology program.

We trust you'll be able to appropriately schedule your own courses at this point.

Note that the final solution to each puzzle during this year is a single word.

R22/R	Answer
9,222 Abstract Dream Analysis	AL
19.2352 Web Word Ruzzles	motel C
24.7 Voice Recognition	SEA
8.137 Physics & Information Theory of the Vaccoum	ION
6.666 Arcane Programs	HAN
24.967 Comparative Linguistics	JUST
19.1289 Decoding Advanced Cryptography 6.10101011 Computer Applications to Puzzle Solving	ICE
6. 10101011 Compoter Applications to Puzzle Solving	HEADED
19.2582 Research	NAT
19.28 Quotation Reales	RED
Combine the answers: JUSTICE RED HEADED NATIONAL	

Sophomore Year answer: LEAGUE

```
From the web-site:
                                                      Reformatted:
"%c%c%c\n", __o_o, o__o_,
#define _o_o_ if
#define o_o_o else
                                                      #include <stdio.h>
                                                      #define _o_o_ if
#define oo____ printf
                                                      #define o_o_o else
#include <stdio.h>
                                                      #define oo____ printf
*2<(o__o_-_o_o))
+ __o_o; o__o_ = o_o__ +
                                                      int main (void)
1; o__o = o_o + _o_o - 11;
_o_o * 3; o_o = _o_o
                                                             int _o__o, __o_o;
_o_o = 24; __o_o = __o_o (((o__o-o_o))) int _o_o, __o_o;
                                                             int o_o_, o__o, o__o;
                                                             _{0}_{0} = 24;
                                                             int main (void)
int o_o_, o__o, o__o;
o__o); return 0;
o__o, _o_o); o_o_o oo__(
oo__("%c%c%c\n", _o_o,
                                                             _o_o_ ( ((o___o-o__o_))*2 < (o__o_-_o_o) )
}
                                                                         00___("%c%c%c\n", _o__o, o__o, _o_o);
                                                             0_0_0
                                                                         oo___("%c%c%c\n", __o_o, o__o, o__o);
Re-ordering the lines:
                                                             return 0:
#include <stdio.h>
                                                      }
#define _o_o_ if
#define o_o_o else
#define oo____ printf
                                                      If, in addition, you make the definitions:
int main (void)
                                                      #define _o__o a
int _o__o, __o_o;
int o_o__, o__o, o__o;
_o__o = 24; __o_o =
                                                      #define __o_o b
                                                      #define o_o__ c
                                                      #define o__o_ d
_o__o * 3; o_o__ = _o__o
                                                      #define o___o e
+ __o_o; o__o_ = o_o__ +
1; o__o = o__o + _o__o - 11;

_o_o (((o__o-o_o)))

*2<(o_o-_o))

oo__("%c%c%c\n", _o_o,
                                                      then the pre-processed program looks like:
                                                      int main (void)
                                                      {
o___o, __o_o); o_o_o oo__(
"%c%c%c\n", __o_o, o_o,
                                                             int a, b;
                                                             int c, d, e;
o___o); return 0;
                                                              a = 24;
                                                              b = a * 3;
                                                                 = a + b;
                                                              С
Compiling and executing gives: Han
                                                              d = c
                                                                       + 1;
                                                                                       97
                                                                 = d + a - 11; 1/0
                                                                  (((e-d))*2 < ((d-b))
                                                                         printf ("%c%c%c\n", (cAN) n
                                                                                                               b);
                                                                         printf ("%c%c%c\n",
                                                                                                   b , d ,
                                                                                                               e );
```

return 0;

**19.1289** — Decoding Advanced Cryptography *Prof. Eric Albert* 

CPNJKU SNSYKPK SEPNSWM UICKUSC IVVIFP
NQKSNM IXXSMK VBHTVP KHSDZSN MSHICV
SKKSXH QSVNJA BFPFOF GMNIC ERQCWG
RVKTLBY FAVUAQ LYMOGN PXWAHG FSKUST
WGSEU SNMXBT KKUSVSK KSXHB IZCPNJ
WNJXSW XXWNQSK USSNMXB TKSJV SKKSXH
KIQSK KUXSSM IEEINS NQVPH UFIXJH

GELNDJJ Genesis Exodus Leviticus Numbers Deuteronomy Joshua (Judges) Wyoning WY > YW Wisconsin WI IW West Virginia WY VW Washington WA AW

BCNOF Boron Carbon Nitrogen Oxygen Fluorine (Neon) MKGFABO
STAIR Spectral Types
M CoolesT
K
G
F
A
B
HottesT

19.1289 - Decoding Advanced Cryptography

FINDTH ENEXTIT EMINEAC HOFTHEF OLLOWI CPNJKU SNSYKPK SEPNSWM UICKUSC IVVIFP

NGTENC ORRECT LYSPLI TSEQUEN CESOFL NOKSNM IXXSMK VBHTVP KHSDZSN MSHICV

ETTERS GELNDJ YWIWYW &CNOF MKGFA&SKKSXH OSVNJA BFPFOF GMNIC EROCWG

<u>KLTPŁYX WILHIG ŁXCYB</u>N IRAISB WETHEP RVKTLBY FAVUAO LYMOGN PXWAHG FSKUST

A<u>B</u>EMH ENCRYP TTHELET TERSY OUFIND WGSEU SNMXBT KKUSVSK KSXHB IZCPNJ

ANDREA RRANGET HEENCRY PTEDL ETTERS WNJXSW XXWNQSK USSNMXB TKSJV SKKSXH

TOGET THREEC OMMONE NGLIS HWORDS KIOSK KUXSSM IEEINS NOVPH UFIXJH

#### Rearranged:

FIND THE NEXT ITEM IN EACH OF THE FOLLOWING CPNJ KUS NSYK PKSE PN SWMU IC KUS CIVVIFPNQ

TEN CORRECTLY SPLIT SEQUENCES OF LETTERS KSN MIXXSMKVB HTVPK HSDZSNMSH IC VSKKSXH

GELND YWIWW &CNOF MKGFA& KLTPZYX QSVNJA BFPFOF GMNIC ERQCWG RVKTLBY

WJLHJG ŁXCV6N IRAJSB WETHEP A6EMH FAVUAQ LYMOGN PXWAHG FSKUST WGSEU

ENCRYPT THE LETTERS YOU FIND SNMXBTK KUS VSKKSXH BIZ CPNJ

AND REARRANGE THE ENCRYPTED LETTERS WNJ XSWXXWNQS KUS SNMXBTKSJ VSKKSXH

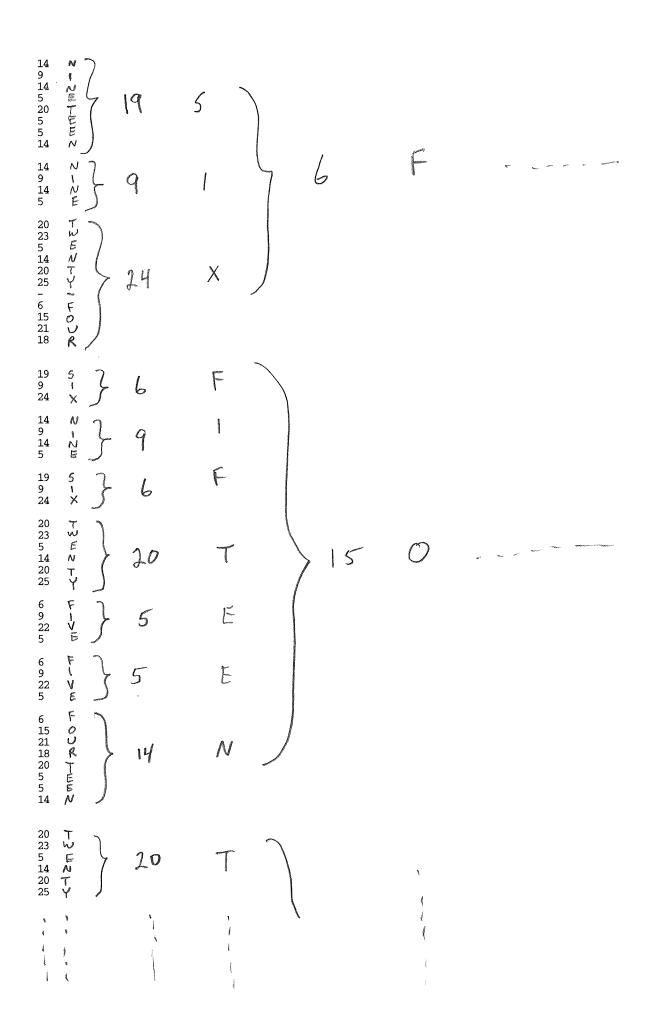
TO GET THREE COMMON ENGLISH WORDS KI OSK KUXSS MIEEIN SNQVPHU FIXJH

Plain:  $\underline{\underline{J}}$  Y F Q M W  $\underline{\underline{B}}$  S O D T  $\underline{\underline{Z}}$  C N  $\underline{\underline{V}}$  I G  $\underline{\underline{K}}$  E P H L A R X U Cipher: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

# 6.10101011 — Computer Applications to Puzzle Solving *Prof. Thomas Weisswange*

Solving problems with just a pencil and your brain is quite satisfying, but sometimes you need a computer to churn out the answer for you. Take

http://www.liii.com/~thomasw/hellcode.txt as a case in point.



### 19.28 -- Quotation Puzzles

Prof. Scott Weiss

We made up the quotations in the quote boxes below. Just drop the letters in each column down to the appropriate row to spell something. You should note that we've left out more than just the black squares.

I.

E E A N E A A A I L H A N I D C L L V I E R I H E T R W Y N S T M E Y S W I E N I E Y E E I N 3 I E A C A I I Y A I E A C A I Y E A I E A C A I WHEN THEY'RE IN (THE PINK, PANTHER)S IDEALLY
ARE ACTIVE ANIMALS

II.

WILL (MEN IN BLACK) SMITH SHOPS HELP A LADY

CONSTRUCT THE SHOES

123456 SECOND-

III.

WHAT SCOUT SEES AS A HOSE IS TO
(SILVER A DO)UGH NUT

12 3456
EIGHTH

[RED]

19.503 - Advanced History

Decode the following four letter word:

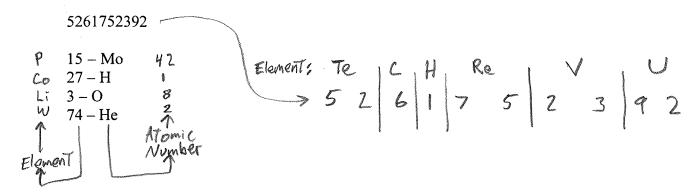
Weisse masse, Seolfor siolfur, Prometheus, Nitron

Element: Bismo	th s	ilver	fromethium	Nitrogen
Atomic number:	83	47	61	7
This is the Th prime number:	23	15	18	4
that lettar of the alphabet:	W	0	R	D

WORD

### 5.198 - Number Theory

Visiting Profs. Michael Hill and Patrick McCormick



of current issue of "Technology Review"

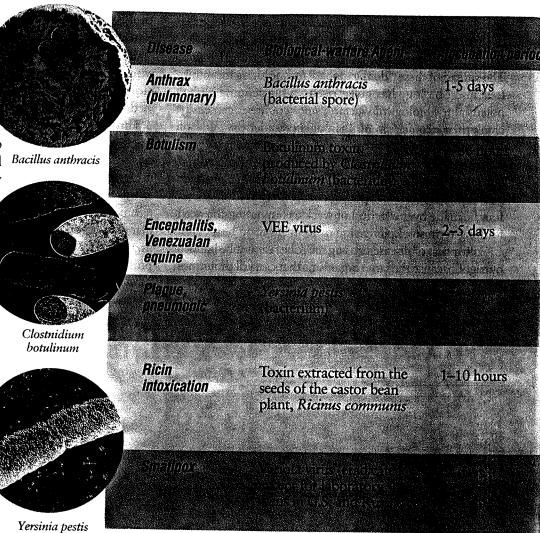
ADVANCED

In some cases, sampling and analysis can yield compelling evidence of illicit activities. When Japanese police raided the Aum Shinrikyo cult's headquarters near Mount Fuji, they found an advanced microbiology lab producing anthrax bacteria and botulinum toxin, apparently intended for terror attacks.

Generally, however, the results of sampling and analysis are less clear. Analytical techniques occasionally produce "false positives" by appearing to recognize a biological-warfare agent that isn't actually present. This problem may arise when the target DNA sequence or molecular marker is present in both a pathogenic agent and a harmless microorganism. To avoid false positives, inspectors should confirm a positive result obtained by one analytical technique with another method based on different scientific principles.

Samples may also be contaminated with pathogenic microbes naturally present in the environment. Anthrax spores, for example, are often found in sheep and cattle grazing areas in concentrations of 100 to 500 spores per 100 grams of soil. These levels, though well below the 10,000 or so spores that must be inhaled to cause infection, are easily detectable with PCR. The pharmaceutical industry therefore worries that anthrax spores naturally present in the environment might be tracked into a vaccine plant on the bottom of workers' shoes and detected by international inspectors—raising suspicion of a BWC violation where none is warranted and damaging a firm's hard-won reputation. "The release of erroneous information implying serious wrongdoing could cause irreparable harm to a company's relationship with its shareholders and the general public," observes William Muth, a scientist at Lilly Research Laboratories in Indianapolis.

Thus in the absence of a "smoking gun," such as a rack of bombs or warheads filled with biological agents, sampling and analysis would not provide unequivocal proof of a treaty violation. Detecting anthrax would not necessarily be incriminating, for example, if the facility in question were culturing the agent for a legitimate purpose, such as the



production of a protective vaccine, or if anthrax were endemic to the surrounding region. Moreover, highly sensitive detection technologies such as PCR could find minute traces of anthrax DNA, while revealing little about the total amount of agent produced at the site.

On the other side of the coin, since it is not possible to sample everywhere, inspectors may fail to detect actual violations of the BWC. Thus the inability to find an illicit biological-warfare agent at a suspected facility does not necessarily mean that the plant is treaty-compliant. A covert proliferator might exploit a series of negative findings to claim a clean bill of health. Because of the possibilility of false positives or false negatives, evidence of BWC violations obtained by sampling and analysis must be interpreted in the light of other types of information.

#### **Protecting Trade Secrets**

The pharmaceutical industry worries that sampling and analysis used during on-site inspections could jeopardize industrial trade secrets. The chemical industry initially had similar reservations about the intrusive inspections allowed by

19.13 Junior Lab Professors G. Rockefeller and C. Nave

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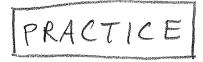
and onto the sidewalk and nearly collided with a pedestrian. "excuse me!" url cr.c .fo tmlo!u'd url rouy'n ?c''mlol !m.f u "olot.ymurs woh?gto koxw

yelled the man. i apologized profusely. "i'm only a tourist," i explained, no''ol .fo kurs m u"c'cjmiol "ycvgto'ns wmzk cr'n u .cgymt.;w m oh"'umrol;

"and i'm a little lost. how do you get to carnegie hall?" the stranger wurl mzk u 'm..'o 'ct.s fc! lc ncg jo. .c ?uyrojmo fu'',w..fo t.yurjoy

replied"""
yo"'molwww

Plain: /; okbhuxzgmdiyejqn.saf"!r't?,lpcwCipher: / bcdefghijklmnopqrstuvwxyz.,;'"?!



Take all the Red letters from Red things; HUB INRIDG ORIGIN Green SPOT STOP Blue AVERAGE VGAEARE Small START Medium ASTRT 19.789 Color Theory ENDING Louge DIGNNE LARGE GREEN "Green Building aTMIT MEDIUM GIREEN LARGE Hist RED SMALL BLUE MEDIUM RED LARGE BLUE SMALL GREEN SMALL RED MEDIUM BLUE Take the START/ORIGIN (FIRST) letters of START, ORIGIN: S O
" " AVERAGE/HUB (Middle) " " AVERAGE, HUB: R U
" STOP/ENDING (LAST) " " STOP, ENDING: P G

AnagramTo: HUB

### 19.678 - Junior Project

Although our freshman and sophomore years involved a number of new-fangled puzzles, we decided to shift our attention towards more classical problems for our Junior Project. Below is a simple set of clues for fairly short words; they are listed together in eight pairs. A pretty straight-forward warm-up exercise, if you ask us, but our professors considered it perfect for our Junior Project.

Moxy Fruvous's second album:  $\frac{W}{M} \stackrel{\mathcal{O}}{=} \stackrel{\mathcal{O$ 

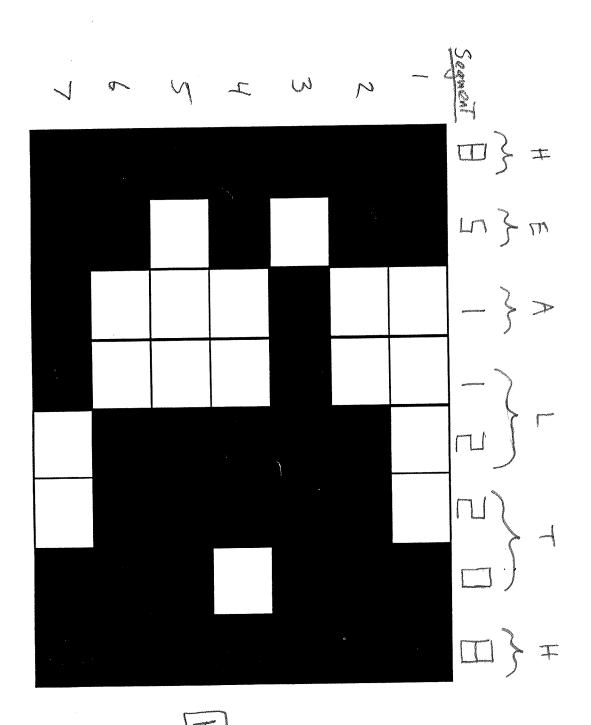
PRACTICE

7.270 - Sustenance of Life
Profs. Johann Burgert & Robert Rucinski

Life 1/4/3

Rucinski 5/4/3

Samon



TEALTH.

CARTOONING For the Tech - Noun Poetry by Katy-Cat

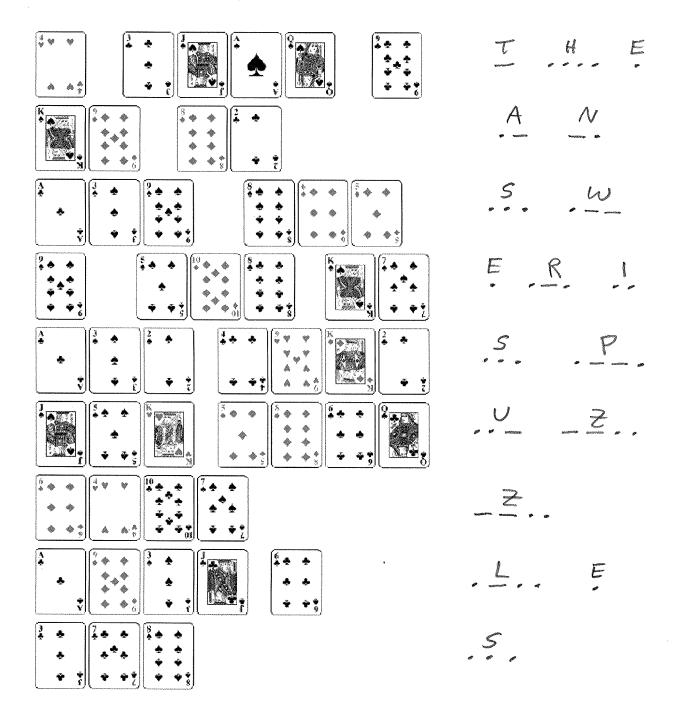


## Course 6.1835 - Problem Set 1 - 1/16/1998

### **AI Pattern Recognition**

Professors M. Factor, M. Vale, R. Hoffmann

Morse Code Red = -Black = .



THE ANSWER IS PUZZLES

PUZZLES

# Convert number to letter, then decrypt.

4,7,3,2 / 26,4,9 / 19,11,17,2 / 5,2,3,6,25,19,2,14,2,1 / 22,14,6,16 / 18,2,16,16,11,8,2 / 26,4,9/15,6,10,10 / 11,10,18,4,16,22 / 19,11,17,2/ 22,19,2/11,7,16,15,2,14.

25,9,22,22,6,7,8 / 6,22 / 22,4,8,2,22,19,2,14 / 6,16 /11,16 / 2,11,16,26 /

Plain: ONCE YOU HAVE DECIPHERED THIS Cipher: DGCB ZDI SKQB EBCFYSBNBA VSFP

11,16 / 4,7,2 / 22,15,4, / 22,19,14,2,2.

MESSAGE YOU WILL ALMOST HAVE THE RBPPKHB ZDI OFJJ KJRDPV SKQB VSB

ANSWER

PUTTING IT TOGETHER IS AS EASY YIVVFGH FV VDHBVSBN FP KP BKPZ

AS ONE TWO THREE KP DGB VOD VSNBB

1 2 3 4 5 6 7 8 9 10 11 12 Gipher: A B C D E F G H I J K L Plain: D E C O D I N G, U L A —

DECODING

19,001 VW/55 Pzzl

In 1914, Indiana Jones left a message about his profession:

**RCHLGCL** 

Re-insert the vowels.

ARCHAEOLOGICAL

#### **24.845** -- Circular Saws

if you not to come a evil, it ooes not bear no evil, say it no evil. the colo time transfers the interior warm. if you it could not be the heat, sad of a kitchen. each good Boy condemns. he never looks at a horse of the gift in the opening. Total of feiglinge many marks before its beaths. Simple coming, goes simply.

Sayings (saws) run circularly through

See no evil, hear no evil, speak no evil Cold hands
If you can't stand the heat,
Every good boy does fine
Never look a gift horse in the mouth

Easy come, easy go

FIRST letters: [SCIENCE]

# 19.00s — A Study of Contemporary Culture, Terminology, and the Symbolism of Post-Modernism in a Neo-Industrial Proto-Futuristic Paradigm

	Symbol
1. Find a link between Ashley Judd and Henry Rollins á la Kevin Bacon. Hear	P
2. What is the nearest opposite of the word "Treyf"? Koshar	V
3. What early laser-disc video game featured a dorky hero who could transform into a hunky hero at the press of a button?  Space Ace	A
4. What was the name of the bumbling detective often featured on the children's television program "The Electric Company"? Fargo North, Decodor	N
5. Name a movie starring Mary Steenbergen which features a character who travels to the future.  Time After Time	ne T
6. Rincewind is a former student of what institution? Unseen University	U
7. Name the occupation of the Beatles' Rita. Meter Maid	M
(QUANTUM)	and the second s

### 18.101 — Combinatorics

Here's the combination... you unlock it.

R17 L15 R5 L7 R4 R10 L3 R3 L8 R2 L6 L2 R11

ARCHAEOLOGICAL

# 19.012 - Even More Cryptography

Mit grunts mz zys xywwvt zqmtr xstptotu stlzvymkzr, gjt, umstrjmi gro otukjr. Km ku g mtr-vtmmts nzso. Jzzo vyph! -Fzys Pzextmkmzsu

INDUSTRIAL

## Department of Enigmatology

### Junior Year Requirements

Select one class from A) 4.666 , 19.012	m each of the follow	ving 15 groupings:	MIT-Real MIT Comes	D. ar	
A) 4.666 , 19.01	2 INDUSTRIAL	1	A CONTRACTOR OF THE PROPERTY O	Veji.	y. 50%
B) 19.13, 19.678	PRACTICE	3.932	(MIT)	3 -	→ C
C) 7.270, 19.456	HEALTH	15.1367	(MIT)	15	0
D) 19.345/6,551J	TECHNOLOGY	) (Also 10.5475,	HST9203)	¥	
E) 18.000, 19.234	DOWNTOWN	21H.234J (Also 11.339, 11.		21	V
F) 19.00s	QUANTUM	18.737	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.0	0
G) 19.789	GROUPS	10.737	(1911)	18	.K
H) 24.917, 18.123	DECODING				
I) 5.198 , L.???	ADVANCED	19.1289	(MH)	9	5
J) 19.567	CRYPTOGRAPH	r )			
K) 19.001, 18.101	ARCHAEDLOGI	eal)	1.44.		
L) 24.845	SCIENCE	5.24J (Also 3.9	(MIT) 85J)	5	End
M) 19.2837	WEB		<b></b>		
N) 19.503	WORD	19.2352	(WH)	19	5
O) 6.1835	PUZZLES				
	-week				- Company of the Comp
Junior Year	answer: [	COURSES	nder gerinde der gestellt der der gestellt der der gestellt der gestellt der gestellt der gestellt der gestellt		Vacanting the state of the stat

### 19.333 - Chaotic Clues

Prof. Scott Weiss

 $\frac{G}{1} \frac{R}{2} \frac{E}{3} \frac{E}{4} \frac{K}{5} \frac{C}{6} \frac{I}{7} \frac{T}{8} \frac{Y}{9} \frac{S}{10} \frac{T}{11} \frac{A}{12} \frac{T}{13} \frac{E}{14} \frac{C}{15} \frac{R}{16} \frac{E}{17} \frac{D}{18} \frac{I}{19} \frac{Z}{20} \frac{Z}{21} \frac{Z}{22} \frac{Z}{23} \frac{Z}{24} \frac{Z}{25} \frac{Z}{26} \frac{Z}{27} \frac{Z}{28} \frac{Z}{29} \frac{Z}{30} \frac{Z}{31} \frac{Z}{33} \frac{Z}{34} \frac{Z}{35} \frac{Z}{12} \frac{Z}{13} \frac{Z}{14} \frac{Z}{15} \frac{Z}{16} \frac{Z}{17} \frac{Z}{18} \frac{Z}{19} \frac{Z}{10} \frac{Z}{15} \frac{Z}{18} \frac{Z}{19} \frac{Z}{10} \frac{Z}{15} \frac{Z}{18} \frac{Z}{19} \frac$ 

A 5.G 0 0 D.A S.I T.G E T 5 5 P A R T A Hunt's hit; 5 wds: 63 60 1 45 49 24 29 10 7 50 27 55 66 38 6 18 27 10 41 13

Force-ful warrior?; 2 wds: 36 47 18 26 5 30 40 48 61 8 28 34 12 21 15 16 5 23

A L L Y M C B E A L T O B L E R O N E Boob tube Boston barrister; 2 wds: 12 44 58 32 39 6 25 4 34 68 7 42 14 1 26 25 9 30 40

They're often taken home after receptions: 15 51 41 11 54 2 56 65 17 21 14 43 2 35 20 24 11 29 37

according To common wisdom HYPERACTIVEGIGGLE Like a 4-year-old after eating chocolate, proverbially: 53 9 64 42 16 37 28 13 59 46 3 4 36 38 31 19 17

Stick-y microorganisms? 2 wds: 23 57 31 33 22 62 20 52 35 19 67 8 33 3 39 22 32

Listed clue, answers come first.

Transpose letters to blanks at top (shown above the blanks)

Gives 6 new clues. Answers listed second.

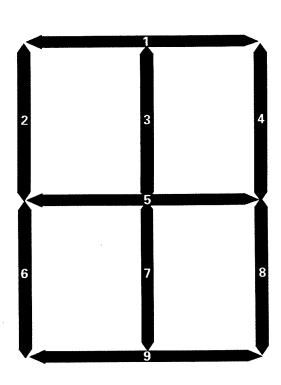
Transpose letters. (shown below numbers at top)

LARGEST WORDS ABOVE PLACARD READING WAI LING SETO

FOREIGN LANGUAGES
AND LITERATURES

## 4.123 - Coloring Within the Lines

Prof. Scott Weiss



Go to room 18-085 and find the word above PROSTHETIC.



means Use segment:	and the same of th	2	3	L	5	6	7	8	9
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		1		1	2	2 1	2	1	1 2

# 18.617: Number Theory Prof. T. Weisswange

Answer the following questions. If done correctly, I'm sure you'll know what to do with the finished product.  $(m \cup (\tau; \rho(y))$ 

How many regular female bailiffs appeared in the cast of the TV series "Night Court"?	3
How many PATs were scored by Louis Ray Groza after the Browns joined the NFL in 1950? (Regular Season only)  (Regular Season only)	641
What number belongs to JEALOUSY (in the right book)?	953
What is the number of the verse containing the line:  "No refuge could save the hireling and slave From the terror of flight, or the gloom of the grave:"	3
In what year did Constantine issue the Edict of Milan?	313
What is the number of the highway providing the most direct route between Medicine Hat and Lethbridge? (Alberta)	3
Product: 5,162,487,723	
Call (516) 248-7723	

#### 4.4444 Structures

#### Prof. T. Weisswange

Herb's playing a game of Tetris. He's just not very good at it. He only manages to score 9 rows throughout the whole game. Also, he doesn't know that he can rotate the pieces. The pit for the game is 10 squares wide by 15 squares high. The pieces Herb got are shown below. Remember to remove any complete rows.

Your job is to reconstruct the full Tetris game, from beginning to end. The last piece will go over the top of the pit. Herb will succeed in dropping 9 rows. Do not rotate any pieces as they fall. The blocks remaining at the end of the game will spell out your answer.

Want second item described by answer.

Here are the pieces for the entire game, in order:

WHERE'S WALDO? HE'S ON THE MIT MID-CENTURY SCROLL! FIND THE SCROLL, THEN FIND HIM, THEN YOUR ANSWER IS THE FULL NAME DIRECTLY BELOW HIM ON THE LIST.

Mid-Century scroll, next to Rm. 3-227 WILLIAM D. PINKHAM '22.

# Eleusian Nights 1997

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# If correct answer is no. $\binom{1}{3}$ , use first $\binom{1}{3}$ letters of answer

### 8.161516 — The Persistence of Memory

Prof. Scott Weiss

We hope you remember the answers to these questions, 'cause you sure ain't lookin' em up!

(From 'Freshman Year Pop Quiz")

Circle the choice that answers the question or best completes the statement.

A. Who did Walter go as at last year's Halloween party?  (I) Spider-Man 2. Batman 3. Iron Man 4. Superman	5
B. Laverne has a doctorate in  1. computer science  2. English literature  3. electrical engineering  4. economics	ECON
C. Which of these people is a sibling of June?  1 Dolores 2. Matthew 3. April 4. Quentin	D
D. What does John put on his scrambled eggs?  1. ketchup  2. tabasco  3. worcestershire sauce  4. nothing	WOR
<ul> <li>E. Tom always shouts "Man Overboard!" during the final scene of</li> <li>1. The Poseidon Adventure</li> <li>2) Das Boot</li> <li>3. Titanic</li> <li>4. The Love Boat</li> </ul>	DA
F. Which of these does Mary use when she does her laundry?  1. Woolite 2 Bounce 3. Cheer 4. Clorox	B0
<ul> <li>G. What's Jack's favorite area of mathematics?</li> <li>1. plane geometry</li> <li>2. multivariate statistics</li> <li>3 vector algebra</li> <li>4. topology</li> </ul>	VEC

H. During a recent sermon, what book did Bishop Witherspoon cite?		
1. Matthew		
2) Ecclesiastes	EC	
3. Acts II	Section Section	
4. Genesis		
I. Which finger did Jeff break in 1992?		
(1) index		
2. thumb		
3. pinky		
4. ring		
J. Steve always shows up		
(1)late	A Common of the	
2. too early	Lambo	
3. on time		
4. drunk		
K. Randy does a great impression of a character in what movie?		
1. Star Wars		
2. Forrest Gump	SLIN	
3. Deliverance	~ h   / v	
4 Sling Blade		
L. On what holiday did Willy meet President Carter?		
1. Christmas	EA	
(2) Easter	lance ( )	
3. Thanksgiving		
4. Feast of the Immaculate Conception		
M. Fred collects vintage		
1. wine bottles	Ton-	
2) textbooks	Scorent Scorent	
3. stuffed animals		
4. furniture		
N. To reach Ralph's cabin, which direction do you have to head in leaving Albuquerque?		
(1) north		
2. south		
3. east	N	
4. west		
O. What kind of vehicle does Sally drive?		
1. Jeep		
(2.)truck	TR	
3. motorcycle		
4. trailer		

P. Frank Sinatra is Mike's favorite actor in what film?  1. The Manchurian Candidate  2. From Here to Eternity  3 Anchors Aweigh  4. Guys and Dolls	ANC
Q. Sarah has a keychain version of a(n)  1. Mr. Potato Head  2) Etch-a-Sketch  3. Rubik's Cube  4. Slinky	ET
R. What is Bob's least favorite computer game?  1. Doom  2. Descent  3. Quake  4 Ogre	OGRE
S. Which word did Kelly use to pronounce ANSMET?  1. Aerosmith  2. Enhancement  3. Answer  4. Isthmus	ΕN
T. Where did Tommy's parents go on their last vacation?  1. Rio de Janeiro  2. Budapest  3. Melbourne  4. Walt Disney World	BU
U. Shelley has seen one episode of what series more than 30 times?  1. M*A*S*H  2. I Love Lucy 3. Happy Days 4. Leave It to Beaver	IL
V. Foozball is a(n) 1. koala bear 2. llama 3. iguana 4.dingo	DING

"second word above cecil's line at entrance To Green Building"

GREEN BUILDING ERECTED THROUGH THE GENEROSITY OF CECIL HOWARD GREEN & IRA FLANSBURGH GREEN

-> [THROUGH]