Eric's Puzzle Party – Fall 2005
PUZZLES FROM WONDERLAND

http://www.ericharshbarger.org/epp/

DO NOT READ PAST THIS PAGE UNTIL TOLD TO DO SO BY THE REFEREE!

Introduction

Scoring. A majority of puzzles used in this Party will be scored based on which teams solve them first. Unless otherwise stated, points awarded will be as follows:

1st	800 Points
2nd	500
3rd	300
4th	200
5th	100 (if more than 5 teams, then 100 Points for fifth place and beyond)

No points will be awarded if a puzzle is left incomplete. All puzzles using the above scoring system will be denoted with the following mark on its page (under the SCORING section): "**Timed Score (🕓)**". Note that the above scoring system does not depend at all upon the difficulty of the puzzles; keep this in mind when deciding which puzzles are worth tackling when. If a different method of scoring is to be used on a particular puzzle, it will be explained on that puzzle's page.

Unless otherwise noted, a team can try again if their first submitted answers are incorrect. But once a correct (or valid) answer is submitted, it may NOT be improved upon (if the puzzle is of that type).

Word List. Instead of dictionaries, each team is provided with an Official Word List. This 284 page compilation contains all words of length 2-15 which are valid in tournament Scrabble. These are the valid words for my Puzzle Party as well. If the word is in that alphabetical list, it's good... if not, no good.

Card Notation. There are several puzzles which refer to standard playing cards. Often abbreviations are used. When they are, one should keep in mind that "T" (not "10") is used for "Ten". For example, the three cards, Two of Diamonds, Ten of Spades, and Queen of Hearts would be indicated by 2♦, T♠, and Q♥ respectively.

Thank you to Scott Ingram for his computer programming skills which helped in the pangrammic analysis of the Wonderland text (relevant in one of the puzzles). Thank you to Bob Gillis for printing the copies of the Word List for the Party. Thanks to expert puzzle solver, Wei-Hwa Huang, for double checking the answer to the Mad Poker-Party. And, of course, thank you to all the players, especially first-timers, for coming.

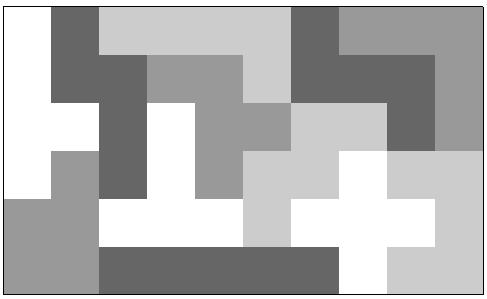
ꕥ Eric Harshbarger

"Dear, dear! How queer everything is to-day! And yesterday things went on just as usual. I wonder if I've been changed in the night? Let me think: was I the same when I got up this morning? I almost think I can remember feeling a little different. But if I'm not the same, the next question is, Who in the world am I? Ah, *that's* the great puzzle!"

PUZZLE-QUADRILLE

A *pentomino* is a geometric shape formed by adjoining five squares with one another edge to edge. There are twelve unique ways to do this (not counting rotations and reflections). Those twelve pieces are pictured here and make up the “classic” set of pentominoes:

Often puzzles focusing on these shapes ask the player to fill in a two dimensional configuration. For example, the 6x10 rectangle is a very common puzzle:



The pentomino puzzle from Wonderland, however, is a bit different. The 12 pieces provided to your are made of paper. Your goal is not to fill in a simple box, but rather cover the surface of the wooden block that comes with the pieces. You will need to fold the pieces to do this, of course. Fold the pentominoes along their squares' edges only, and see if you can cover the surface.

SCORING: Show the pentomino covered object to the referee to get credit for the puzzle (I suggest using the tape to secure the pentominoes to the shape's surface). **Timed Score (🕓)** -- see front page for details.

CRYPTOGRAM

Below is text encrypted using a basic substitution cipher: each letter of the alphabet has been consistently replaced by another letter (actually it may be replaced by itself, but no two different letters are replaced by the same letter). The original words were the "plain text"; they have now been translated into "cipher text":

"JHU KFX HEM, QKLAXF SZEEZKI," LAX JHUGW IKG CKZM,
"KGM JHUF AKZF AKC NXYHIX BXFJ SAZLX;
KGM JXL JHU ZGYXCCKGLEJ CLKGM HG JHUF AXKM--
MH JHU LAZGD, KL JHUF KWX, ZL ZC FZWAL?"

"ZG IJ JHULA," QKLAXF SZEEZKI FXTEZXM LH AZC CHG,
"Z QXKFXM ZL IZWAL ZGPUFX LAX NFKZG;
NUL, GHS LAKL Z'I TXFQXYLEJ CUFX Z AKBX GHGX,
SAJ, Z UCX ZL KWKZG KGM KWKZG."

"JHU KFX HEM," CKZM LAX JHULA, "KC Z IXGLZHGXM NXQHFX,
KGM AKBX WFHSG IHCL UGYHIIHGEJ AZMMXG;
JXL JHU LUFGXM K NKYD-CHIXFCKUEL ZG KL LAX MHHF--
TFKJ, SAKL ZC LAX YKFMC HQ LAKL?"

"ZG IJ JHULA," CKZM LAX CKWX, KC AX CAHHD AZC WFXJ EHYDC,
"Z DXTL KEE IJ EZINC BXFJ YFXKLX
NJ LAX UCX HQ LAZC HZGLIXGL--HGX CAZEEZGW LAX NXCL--
KEEHS IX LH CXEE JHU K YHUTEX?"

"JHU KFX HEM," CKZM LAX JHULA, "KGM JHUF PKSC KFX LHH QZBX
QHF KGJLAZGW LHUWAXF LAKG CUXL;
JXL JHU QZGZCAXM LAX WHHCX, SZLA LAX NHGXC KGM LAX NXKD--
TFKJ AHS MZM JHU IKGKWX LH MH ZL?"

"ZG IJ JHULA," CKZM AZC QKLAXF, "Z LHHD LH LAX EKS,
KGM KFWUXM YKFM YKCX SZLA IJ SZQX;
KGM LAX IUCYUEKF CLFXGWLA, SAZYA ZL WKBX LH IJ PKS,
AKC EKCLXM LAX FXCL HQ IJ EZQX."

"JHU KFX HEM," CKZM LAX JHULA, "HGX SHUEM AKFMEJ CUTTHCX
LAKL JHUF XJX SKC KC THDXF KC XBXF;
JXL JHU NKEKGYXM KG XXE HG LAX XGM HQ JHUF GHCX--
SAKL IKMX JHU CH KSQUEEJ YEXBXF?"

"Z AKBX KGCSXFXM LAFXX OUXCLZHGC, KGM LAKL ZC XGHUWA,"
CKZM AZC QKLAXF; "MHG'L WZBX JHUFCXEQ AKGM!
MH JHU LAZGD Z YKG EZCLXG KEE MKJ LH CUYA CLUQQ?
NX HQQ, HF Z'EE DZYD JHU MHSG-CLKZFC!"

Decrypt the text above and record the corresponding "cipher text" below:

plain text	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
cipher text																										**V**

Q U E E N O F H E A R T S

— — — — — — — — — — — —

SCORING: Use the above information to encrypt the plain text phrase QUEEN OF HEARTS into cipher text. Show the encryption to the referee for Points. **Timed Score (🕓)** -- see front page for details.

"Not *quite* right, I'm afraid," said Alice, secretly; "some of the words have got altered."

RAUCOUS CAUCUS-RACE

After emerging from the Pool of Tears, Alice and many soaked creatues tried to dry off by running a very disorderly Caucus Race. The following racers participated: Alice, Dodo, Eaglet, Lory, Duck, Crab, Mouse, Magpie, and Canary. The whole event was so chaotic that it was difficult to tell when it was all over, much less who might have finished in first, second, or any place. From the follow clues, can you right down in what order the runners finished?

- 6th Place was taken by a creature whose name contains no letter not shared by any other creature.
- Three birds were faster than, and three slower than, Alice.
- 7th Place was not taken by a bird.
- If the Mouse had finished two places better, then no creature would have been faster than any other that had a longer name than itself.
- The fastest and slowest racers shared no letters between their names.
- Dodo was faster than Duck, finishing four places ahead of it (i.e. three racers in between Duck and Dodo).
- If one assumes the racers started in alphabetical order (Alice was first, Canary second, and so on...), then none ended the Caucus-race in the same place that it started. Had the starting positions been in *reverse* alphabetical order, that fact would still hold with the exception of the Magpie.

1st	
2nd	
3rd	
4th	
5th	
6th	
7th	
8th	
9th	

SCORING: Correctly fill out the finishing order of the Caucus-Race to receive Points. **Timed Score (🕓)** -- see front page for details.

> "What is a Caucus-race?" said Alice; not that she wanted much to know, but the Dodo had paused as if it thought that somebody ought to speak, and no one else seemed inclined to say anything.
>
> "Why," said the Dodo, "the best way to explain it is to do it."

WONDERLAND WORDSEARCH

Find as many of the words and phrases from list as you can. You may ignore spaces and punctuation marks. Answers may be hidden vertically, horizontally, and diagonally, as well as in reverse.

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

ACE
ALICE
CATERPILLAR
CHESHIRE CAT
COOK
CROQUET
DODO
DORMOUSE
"DRINK ME"
DUCHESS
DUCK
EAGLET
"EAT ME"
FLAMINGO
GRYPHON
HEDGEHOG
HERALD
KING
KNAVE
LOBSTER-QUADRILLE
LORY
MAD HATTER
MARCH HARE
MOCK TURTLE
PIG
PIGEON
PUPPY
QUEEN
TARTS
WHITE RABBIT

SCORING: Highlight found words with the highlighter from your prop-box. 20 Points for each found.

She waited for some time without hearing anything more:
at last came a rumbling of little cartwheels, and the sound of a
good many voices all talking together: she made out the words...

PANGRAMMIC MADNESS

Part One (you may turn in answers for one or both parts on this page)

Alice's Adventures in Wonderland contains 107,683 individual letters. Here's a challenge for you: find the smallest string of letters from anywhere in the text of the story which is “pangrammic” -- that is, contains at least one instance of each of the twenty-six letters of the alphabet.

You may start anywhere in the text (even in the middle of a word), and count forward through subsequent letters (ignoring all punctuation marks and spaces between words). When you get to a point where you've encountered each letter of the alphabet at least once, stop (you may stop in the middle of a word as well). From beginning to end is the LENGTH of your pangrammic string.

Be sure to account for chapter titles, poems, verse, and so forth... simply go left to right, top to bottom, from page to page (starting on page 19 of the copy given to you, and going through page 118).

SCORING: Your team will receive a number of Points equal to: **(107683 / LENGTH)**.

Part Two

Afraid Part One might drive you mad? Then here's another puzzle. Consider the following crossword:

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

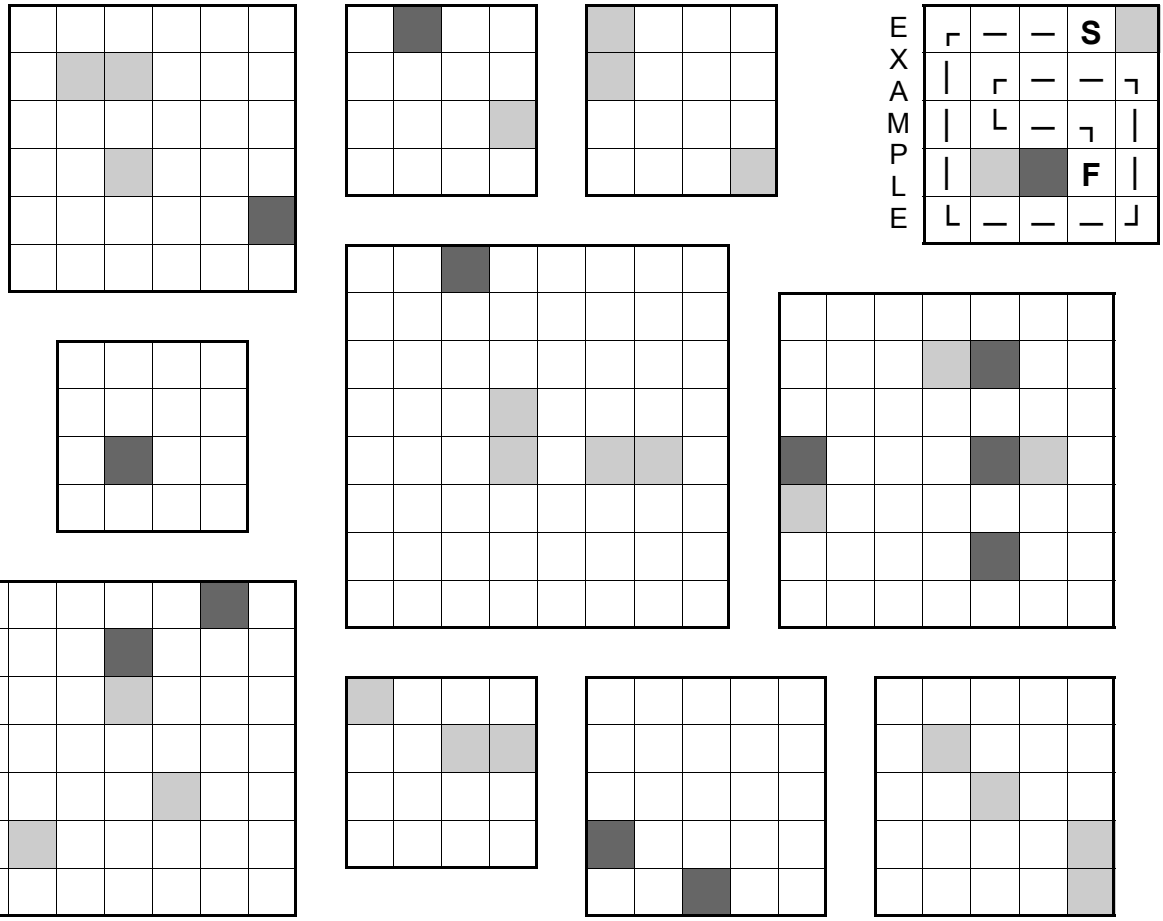
It creates only valid words and uses each letter of the alphabet exactly once. The rectangular grid containing the network of words has an AREA of 9x7 = 63 squares. Can you make a crossword that has a rectangular grid with smaller area? If so, write your answer below.

SCORING: Your team will earn a number of Points equal to **(10 * (100 – AREA))** where AREA is the area of the smallest bounding rectangle that contains your valid crossword.

“But I don't want to go among mad people,” Alice remarked.
“Oh, you can't help that,” said the Cat: “we're all mad here. I'm mad. You're mad.”
“How do you know I'm mad?” said Alice.
“You must be,” said the Cat, “or you wouldn't have come here.”

RICHOCET CROQUET

Numerous “croquet grounds” are represented below by grids. In each, choose a starting square and draw a path horizontally or vertically. You must continue moving in that same direction until you encounter the edge of the grid, a dark or light shaded square (“furrows” or “ridges” on the grounds), or a previously visited square (i.e. a line is already drawn there). At that point, stop, and change direction. Your goal in each grid is to traverse as many of the empty squares as possible. A fully solved example is provided (no guarantees that every grid is fully solvable).



SCORING: Your team will earn 5 Points for each empty square you traverse (totaled from all of the individual croquet grouds/grids). The example would earn you 110 Points (22 * 5).

Alice thought she had never seen such a curious croquet-ground in her life; it was all ridges and furrows; the balls were live hedgehogs, the mallets live flamingoes, and the soldiers had to double themselves up and to stand on their hands and feet, to make the arches.

(DIS)APPEARING CAT

In your team's prop-box you will find a 7x7 Sliding Puzzle (it reads “I SPY” along the top). The scrambled picture is one of the grinning Cheshire Cat (see below). Arrange the pieces so that the picture is properly formed (the blank space should end up in the lowest row, second from right). Do not remove the taped-on pieces of paper from the sliding squares (or, at least don't do it before you solve it and get it scored).

SCORING: When the image of the cat is formed as below, show the ordered picture to the referee for Points. **Timed Score (🕓)** -- see front page for details.

...“and I wish you wouldn't keep appearing and vanishing
so suddenly: you make one quite giddy.”

“All right,” said the Cat; and this time it vanished quite slowly,
beginning with the end of the tail, and ending with the grin,
which remained some time after the rest of it had gone...

__ __ __ __ __

WWWNNWSEES
WWWNEEEESW
NWSWWNEESE
ENES

__ __ __ __ __

WWNEESWWWN
WWNNNENESS
WNESSWNESS
WSWNEEEEEE
SWWWWWWNEN
ESSWNEEESW
WWWN

__ __ __ __ __ __ __

EEEENWWWWS
EEESWWWNEE
NWWNESSESW
WNNEEEESSW
WWWNNEEEES
ENESSWNWSW
WWWNEEEESE

__ __ __ __ __

WONDERLAND MULTIPLICATION

Clearly, Alice was not thinking clearly in Wonderland:

> '... Let me see: four times five is twelve, and four times six is thirteen, and four times seven is -- oh dear! I shall never get to twenty at that rate! However, the Multiplication Table doesn't signify: let's try Geography...'

But can you really blame her? By this point, maybe to you it *is* all starting to make sense. Or maybe, just maybe, she was onto something. Surely four times five is never equal to twelve. Yet...

```
  FOUR
× FIVE
------
  WRIE
 GEOU
LGEN
------
TWELVE
```

Can you make the above equation work? Suppose the following conditions:

- Each letter above represents a different digit 0 through 9, *except* the letters “T”, “W”, and “L” which all translate to the same digit (and one not used by another letter).
- A translated number may have “leading zeros” (e.g. “0851” would be acceptable).

Translate the above to a valid numerical equation and write down which numbers go with which letters here:

E	F	G	I	L	N	O	R	T	U	V	W

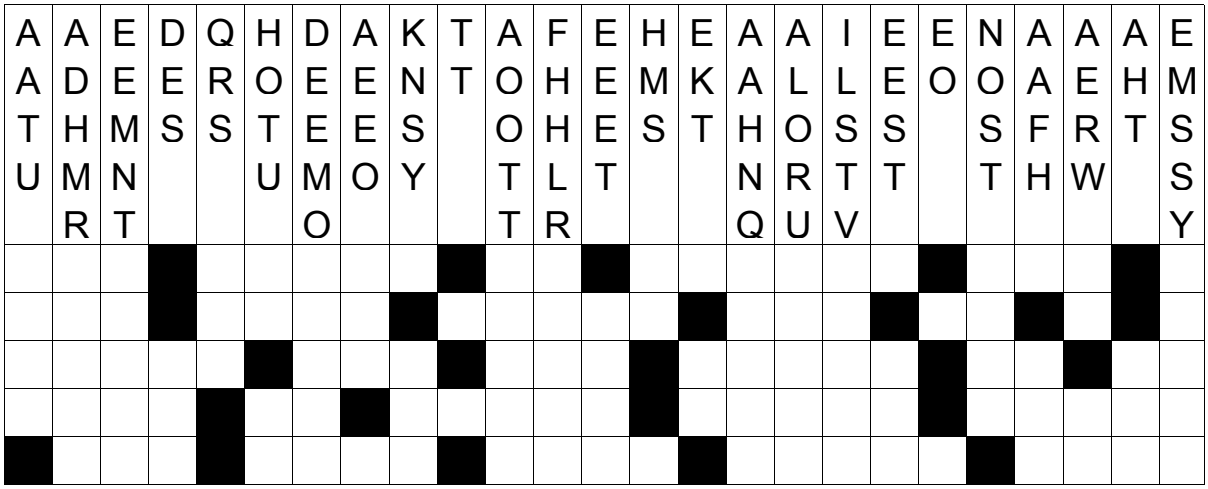
SCORING: Show the correctly filled in chart above to the referee to receive Points. **Timed Score (🕓)** -- see front page for details.

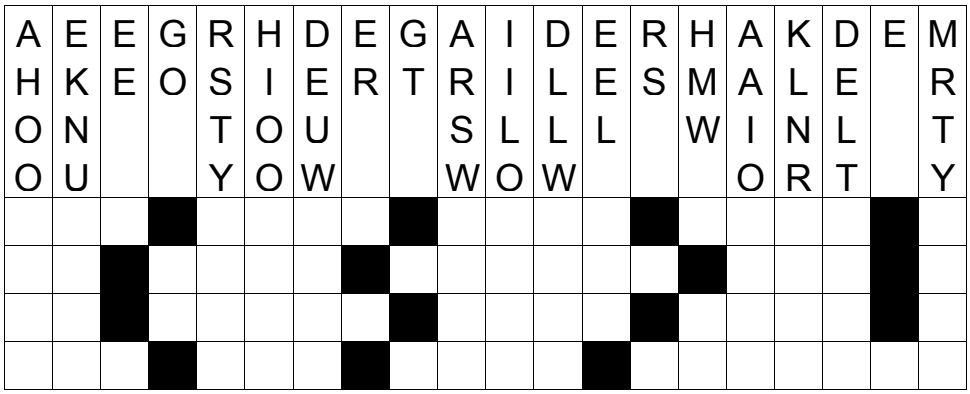
3AK4613H5343335173D56K5YA6D8637CK4613H5D779

DROPPED LETTERS

Determine the quotes below.

* * * *
 * * *
* * * *





List the book pages that each of the above quotes comes from:

_____ & _____

SCORING: When solved, show the page numbers to the referee for Points. You must solve both for any Points. **Timed Score (🕓)** -- see front page for details.

"That's very important," the King said, turning to the jury. They were just beginning to write this down on their slates, when the White Rabbit interrupted: "*Un*important, your Majesty means, of course," he said in a very respectful tone, but frowning and making faces at him as he spoke.

"*Un*important, of course, I meant," the King hastily said, and went on to himself in an undertone, "important--unimportant--unimportant--important--" as if he were trying which word sounded best.

WORD LADDERS

In addition to authoring two classic children's stories, Lewis Carroll was a noted photographer, mathematician, and clergyman. He also loved puzzles. In fact, he is usually credited with inventing a common type of word puzzle often called “word ladders” (though in Victorian times they were referred to as “doublets”).

A word ladder is formed by taking a pair of words and trying to transform the first into the second, one step at a time, by changing exactly one letter in each step. A valid word must be formed at each step along the way. So, for example, creating a word ladder for the word pair CAT & DOG could go something like this:

C A T
C O T
D O T
D O G

A pretty simple one.

Now, it's your turn. Included in an envelope (in your prop-box) are 18 cards, each with a pair of words at the top. Your goal is to create a word ladder with each pair. Try to create a ladder which is as short as possible (the fewest steps possible).

SCORING: Each properly solved word ladder which is shown to the referee will earn your team a number of points as stated on the card. If your team's answer for a particular word ladder is shorter than all other answers turned in for that one, the score will be doubled (no doubling in the case of a tie). You need not complete all of the word ladders to get credit for solving some of them.

“Speak English!” said the Eaglet.
“I don't know the meaning of half those long words, and,
what's more, I don't believe you do either!”

“WHO ARE YOU?”

In case you don't know, an anagram is a reordering of letters from one word or phrase to form another word or phrase. For example, the letters of my full name, **ERIC CURTIS HARSHBARGER**, anagram to the sentence:

“GRRR...,” AS I RUB CHESHIRE CAT.

Below are several more phrases and sentences. Each is an anagram with its letters taken from the names of exactly two characters from *Alice's Adventures in Wonderland*. Your challenge is to rearrange the clues back to the original two characters. No character's name is used in more than one phrase. You should ignore punctuation used in the entries.

A CHIEF HASTENS CROQUET HERE.

_____ & _____

“NO! PEACHY GIRL.”

_____ & _____

HARSH DEUCES CHARM.

_____ & _____

GO SO RULED: “EAT ME.”

_____ & _____

DR. TOM: LOCKED OUT!

_____ & _____

'T HAS THE TAG: "FOR A., DRINK ME."

_____ & _____

BRIBE ALL WITH PRICE: A TART.

_____ & _____

DEEP AS THIS FOG

SCORING: Show the referee your pairs of characters. **Timed Score (🕓)** -- see front page for details.

“Who are *you*?” said the Caterpillar.

This was not an encouraging opening for a conversation. Alice replied, rather shyly, “I--I hardly know, sir, just at present-- at least I know who I *was* when I got up this morning, but I think I must have been changed several times since then.”

“WHO STOLE THE TARTS?”

“Alas,” moaned the Mock Turtle as he looked at the notes before him. “This will never do.”

The sad creature was trying to compile a story about many sensational trials for the *Wonderland Times* (he had been, for many years now, the editor-in-chief of the sole newspaper of the realm). This was all very big news. Four members of various Royal Families had each been on trial for theft, and all of the proceedings had ended today. It was the biggest news in Wonderland for sometime, and it was the Mock Turtle's job to present a clear, concise story to his readership.

But, lo, in a truly mad turn of events, the Dormouse had been employed as the Court's chief stenographer. How could such a thing have happened?! The creature was so sleepy during the trials (all of which proved quite boring) that he dozed off more often than not. The records of the trials were anything but complete.

And so, the quasi-terrapin had to try to make sense of what little he had. His story had to be accurate and complete. Who stole what, and who helped them do it? Everyone was already aware of some of the facts, but in Wonderland the facts have a way of getting twisted, confused, and forgotten. Three men and a woman had each faced charges: A Champion (Ace), a King, a Queen, and a Knave (Jack). Each had come from a different Family (Spades, Hearts, Diamonds, or Clubs). The items stolen were Tarts, Alice's Thimble, The Mad Hatter's Pocket Watch, and The White Rabbit's Fan. And there was an accomplice in each case: either the Cheshire Cat, the March Hare, the Duchess, or the White Rabbit.

But who helped whom steal what was anybody's guess at this point (even if the facts had been clear going *into* the trial, Court cases in Wonderland are such nonsensical affairs, who knows who came out guilty of what!)

That is where the Dormouse's notetaking was to have come in handy. But below are the only facts recorded from the trial:

1. The March Hare was wronged by both of the crimson Families in the past. He never would have collaborated with either.
2. The Gryphon, a reliable witness, recalled that the thief of the fan wore a patch across his face; he was “one-eyed.”
3. The guilty King wielded a sword, but it could not have been the “Suicide King” (he was in the madhouse at the time of the theft).
4. At the scene of the missing tarts flowers were found; no doubt accidently left behind by the evildoer.
5. “It is obvious that the White Rabbit would never have stolen the Hatter's watch; he already has one of his own,” stated the thief, neither of Clubs nor Diamonds, who employed W.R. “Furthermore, clearly he could not have helped to steal something which was already his own!”
6. The thief of the fan, a man in a dark suit, hated animals and would never have worked with one.
7. The Champion who stole Alice's thimble only wanted to give it to his lover. “Love over Money” has always been his nature.

So, what are the complete facts of the trials? Record your answers below:

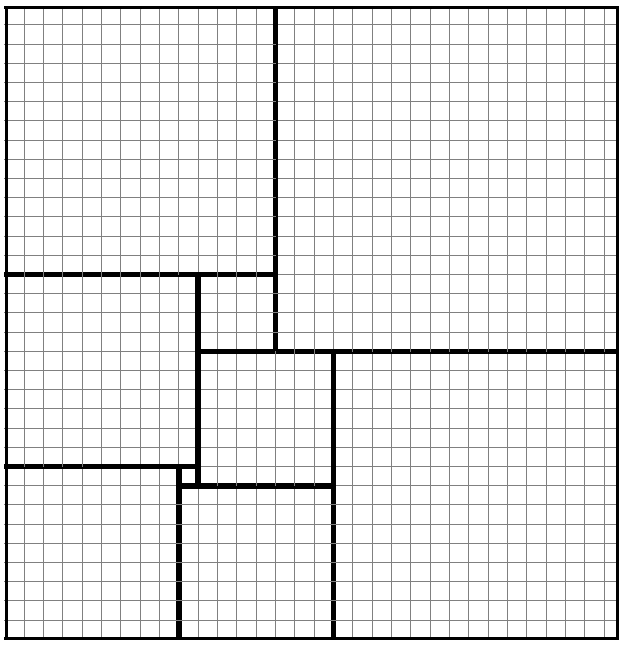
The Tarts were stolen by the _____ of _____ with the help of _____.
The Thimble was stolen by the _____ of _____ with the help of _____.
The Pocket Watch was stolen by the _____ of _____ with the help of _____.
The Fan was stolen by the _____ of _____ with the help of _____.

SCORING: Correctly fill out the information above to receive Points. **Timed Score (🕔)** -- see front page for details.

“No, no!” said the Queen. “Sentence first--verdict afterwards.”

TWENTY-ONE SQUARES

Below is a diagram created using nine squares, each a different size. They are placed in a non-overlapping, edge-to-edge fashion so as to create a rectangle (32 x 33 units -- almost a square):



It is actually possible to create a larger square (not just a rectangle), but it requires twenty-one smaller sqaures. That is your task: your team has been provided with 21 squares (in your prop-box), each a different size. Assemble them, edge-to-edge, non-overlapping so that they form a single larger square.

SCORING: Show your solution to the referee. **Timed Score (🕓)** -- see front page for details.

> "Reeling and Writhing, of course, to begin with," the Mock Turtle replied; "and then the different branches of Arithmetic -- Ambition, Distraction, Uglification, and Derision."

THE CROQUET GROUNDS

Scattered throughout the yard around my house are a great many playing cards lying face down. Your goal is to find as many as possible. When you find one, look at it's face and see if it has a letter or symbol written on it. If so, record that character in the appropriate blank below. After examining a card, be sure that you put it back just as it was so that other teams have a fair chance of discovering it.

6♥	4♠	8♠	3♦	3♠	5♥	6♠	T♣	J♣	2♠
7♦	2♦	3♥	T♦	4♦	9♦	K♠	5♠	4♥	7♣
A♦	A♥	T♠	2♣	7♠	K♣	K♦	6♣	T♥	A♠
Q♣	9♣	8♣	7♥	J♠	8♦	4♣	5♦	3♣	8♥
5♣	A♣	J♦	9♥	9♠	6♦	Q♦	J♥	Q♠	2♥

Who said it?

_____

SCORING: Your recorded symbols should spell out a quote from the story of *Alice's Adventures in Wonderland*. In the blank above, write down which character of the story said the quote. Show this answer to the referee. **Timed Score (🕓)** -- see front page for details.

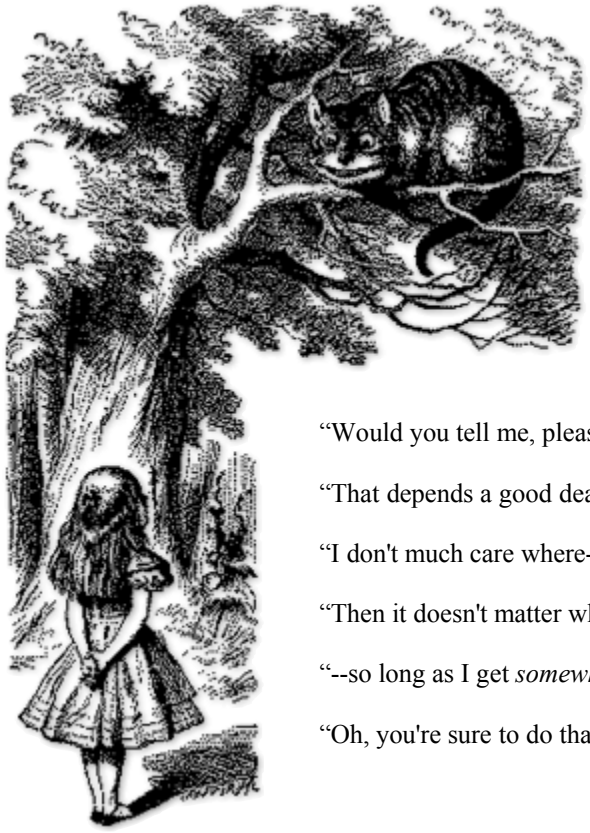
At this moment Five, who had been anxiously looking across the garden, called out "The Queen! The Queen!" and the three gardeners instantly threw themselves flat upon their faces.

A-MAZING WONDERLAND

Provided to your team is a large soccer ball shaped object (a truncated icosahedron) with a maze imprinted on all of its twenty hexagonal faces. Each of the twelve *pentagonal* faces names a character or place that Alice visits during her adventures in Wonderland. Your goal is to start at the center of any one of those twelve places and traverse the maze so that you visit all of the other places (pentagonal faces). Use the dry-erase marker to trace a path on the plastic coated surface (please, *do not* use the red ink, permanent marker from your prop-box).

- You may not branch your path; it must be a single, uninterrupted, non-over-crossing path.
- Each pentagonal face has five entrances/exits (in the center of each face's edge). You must leave by an exit that is different than one you entered that face on.
- You may begin at any of the twelve places, and end the path at any other one (travelling through the other ten places in between). When you complete the maze you should, therefore, have a single path (*not* a loop) that connects the twelve places, in some order, along a very convoluted line.

SCORING: When completed, show the solved maze to the referee (he will double check that all of the places are visited with a single path). **Timed Score (🕔)** -- see front page for details.



"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to," said the Cat.

"I don't much care where--" said Alice.

"Then it doesn't matter which way you go," said the Cat.

"--so long as I get *somewhere*," Alice added as an explanation.

"Oh, you're sure to do that," said the Cat, "if you only walk long enough."

MAD POKER-PARTY

"This is the stupidest poker-party I ever was at in all my life!" thought Alice, "Even stupider than that tea-party!" Around her she looked and saw that even after eighteen ill-fated attempts to get the game started, the players were as unfocused as ever.

She was first at the table, and would receive the first card dealt from the The Dealer (the Knave of Diamonds, who evidently exited the Royal Court from time to time to act as the card thrower at the Mad Hatter's games). To her left was the Mad Hatter himself, busily discussing with the March Hare what type of jam they should dip the Dormouse's tall into (March Hare sat fourth at the table, with the sleepy Dormouse in between them, as usual, at third).

The White Rabbit sat fifth, but he was as nervous as ever and by constantly paying more attention to his pocket watch than his cards, he had already managed to nullify his fair share of the previous deals. The last two players were the Mock Turtle and the Gryphon (sixth and seventh at the table, respectively). They had been suspiciously calm during the past hour, and now Alice was beginnng to suspect that either they really were as frustrated as she, or maybe just conspiring to cheat at the game (if it ever legitimately got started). The Gryphon, in particular, seemed quite astute when it came to the game of poker.

Seeing that the Knave was patiently waiting for the Hatter and Hare to finish their discussion, and was not going to deal the cards again until the Jam Question was resolved, Alice slumped back in her chair. "Even the Queen's silly games of croquet accomplished more than this!"

Eighteen times the Knave of Diamonds had already dealt the cards out, and every time, something (or *someone*) caused a misdeal. The cards had to be gathered back up, shuffled, and redealt. "The nineteenth time's the charm," Alice had always heard, or something to that effect.

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During the first nullified deal, the Knave had taken the original stack of randomly shuffled cards and dealt each of the seven players five cards (starting with Alice, of course).

Now, Alice had to admit that it was her fault that this first deal had been cancelled. She hadn't been ready for the speed at which the Knave could toss out cards, and before she knew it, she had the 5♠, T♦, 7♦, 9♣, and 8♥ in her lap. ["T" stands for "Ten"]

The Hatter had guffawed loudly at this. Most of the others had simply shaken their heads (except the Dormouse who had decided to nibble at his last card). After a moment of silence, they all had decided to let the Knave redeal ("This should be a friendly and fair game," the Gryphon had pronounced).

So, the Knave had collected the cards back up and assembled them in a stack.

"CHEATING!" the White Rabbit had blurted out, startling everyone, including himself. "He's put them back in the exact same order as before!" A quivering paw pointed accusingly at the Knave.

"Really? That's *amazing*," Alice had said.

"Amazing, yes. But probably not too fair," the Gryphon had retorted. "I demand you shuffle them before you redeal. Otherwise, what's the point?"

"Very well," the Dealer had responded calmly. And with that he executed one quick, crisp shuffle of the cards.[1]

Thus the second attempt at a deal had begun (starting with Alice again, since this was a redeal, not the dealing of a new round). No one had noticed anything wrong (they were all intently studying their cards) until near the end of the deal when it was obvious the Dormouse had fallen asleep again. Caught in his whiskers, and plainly visible to all (at least, all who had their eyes open), were his five cards: 7♠, 6♥, T♥, 8♣, and 9♥.

The Hatter hadn't laughed that time; instead he had slapped the Dormouse smartly and tossed his own cards back to the Knave. Everyone else had done the same (the tossing, not the slapping). The Knave of Diamonds had reassembled the deck (exactly as it had been before the second deal). To satisfy the Gryphon he had performed one quick, perfect riffle again.

The March Hare disrupted the third deal by throwing his cards at Hatter and demanding that an apology be made for something that had never happened. Alice hadn't even had time to look at her cards, though she

1The Knave is quite a dealer as it turns out. Whenever he shuffles the deck, he performs what is called a "perfect in-shuffle". Cutting the deck of cards in half perfectly, the cards are then alternately interleaved from the left and right hands. If the deck were only eight cards that would mean the cards originally ordered 1 2 3 4 5 6 7 8 would then end up as 5 1 6 2 7 3 8 4 after the in-shuffle. Of course, in the above game they are playing with a standard 52 card deck (using fewer than 52 cards would be mad!)

MAD POKER-PARTY (cont.)

(and everyone else) had seen the White Rabbit's hand (6♣, 2♣, K♣, 5♦, 3♦) when he gave them back to the Dealer (who had then put them in proper order again and shuffled one more time to prepare for a fourth go-around).

"Will we *ever* get started?" the Mock Turtle had groaned sorrowfully at that point.

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Alas, no, they had only *just* started. Alice couldn't remember who had specifically caused the trouble each time, but somehow or another the next fifteen hands (beyond the first three) had gotten muddled. Surprisingly, she could remember some of the exact hands various players had revealed to the other players:

Deal 4: She, herself, had had A♣, 5♠, T♥, J♠, and Q♣.
Deal 5: White Rabbit had been dealt Q♣, 8♦, 7♣, 3♦, 8♣.
Deal 6: March Hare had gotten A♣, A♦, 6♠, 7♥, and 5♠.
Deal 7: Sleepy Dormouse had ignored his cards again: A♥, K♥, J♠, 3♠, 5♣.
Deal 8: He had slept through his next hand as well: T♣, 9♦, T♦, 4♠, and J♥.
Deal 9: The Mad Hatter had made quite a show of pointing out his hand this time: 6♣, J♥, 9♠, 4♦, A♠.
Deal 10: The Dormouse had tried to retort by showing of his tenth hand: 2♦, Q♠, A♦, A♥, 2♠.
Deal 11: Then the March Hare had joined in and shown off his cards: 6♦, 9♠, 5♥, 9♥, and 6♥.
Deal 12: Hatter had decided this was all more fun than actually *playing* poker: K♥, 5♦, 6♣, J♣, K♦.
Deal 13: Dormouse: A♠, 3♣, J♦, 2♦, 3♦.
Deal 14: The White Rabbit had been so flustered at this point he dropped his five: Q♥, 8♠, 2♠, 7♦, T♣.
Deal 15: Hatter had calmed down, but held his cards backward: Q♠, 2♥, K♥, 5♥, 4♥.
Deal 16: White Rabbit had held: 9♥, J♠, Q♦, T♣, 2♦.
Deal 17: The Mad Hatter had sung aloud the names of his cards: 7♥, 4♣, T♠, 5♦, and A♣.
Deal 18: All had seen Alice's latest hand as she had returned them to the Knave: K♣, 3♥, 6♥, K♥, K♠.

She also remembered that before each redeal, the Knave had expertly restacked the deck of cards so it was exactly as it had been before the latest misdeal. He had always shuffled the cards exactly once (glaring Gryphon-way), and then had gotten underway.

So now Alice awaited the nineteenth deal of the cards. The Knave stood ready (the cards having already been shuffled).

Hatter and Hare finally decided upon strawberry jam for the Dormouse's tail, and they quieted down.

Sighing, the Knave was just about to deal Alice her card when the Gryphon interrupted.

"It's pointless, you realize?" The silence that followed indicated that no else did seem to realize what he was talking about.

"What do you mean?" The White Rabbit finally asked.

"I know how the cards stand. It's not fair, really. I can tell you how the whole deck is arranged in the Knave's hand."

"Nonsense!" all of the players cried (the Knave only smiled).

"You don't believe me?" The Gryphon took offense. "Fine. I'll show you," and he proceeded to recite the order of the deck perfectly...

SCORING: Are you as astute as the Gryphon? Assuming that when each five card hand is mentioned above, the cards are listed in the exact order they were dealt to that particular player (for example, the first card the Dormouse received in Deal 10 was 2♦), arrange the deck provided to your team in the exact order of the cards the Gryphon recites (their deck as it stood the moment before the nineteenth deal). Take the deck to the referee to check it and receive Points for a correct ordering. **Timed Score (🕓)** -- see front page for details.

"My name is Alice, so please your Majesty," said Alice very politely; but she added, to herself,
"Why, they're only a pack of cards, after all. I needn't be afraid of them!"

HIDDEN PUZZLE

Congratulations! You have discovered a very important fact about the Puzzle Party; there's more to it than just the explicit puzzles on each page. There is a Hidden Puzzle.

What is the Hidden Puzzle? Well, for that, you'll have to look a bit harder. The Instructions to the Hidden Puzzle are concealed even deeper within the Wonderland Puzzle Book. Keep you're eyes open, and be mindful of everything.

When you think you have discovered the Instructions, notify the referee again, and he will give any final explanation about the secrets (as well as information about scoring the Hidden Puzzle) -- assuming that you have, in fact, found the Instructions. Note that even if you find interesting secrets of other types throughout the Puzzles, your team will NOT be allowed to participate in the Hidden Puzzle contest unless you find the actual Hidden Instructions.

Just for discovering this secret, your team will be awarded some additional points (scored in the same fashion as **Timed Score (🕔)** puzzles -- see front page for details). Your team will receive even more points when you uncover the Hidden Instructions.

"Come, we shall have some fun now!" thought Alice. "I'm glad they've begun asking riddles. -- I believe I can guess that," she added aloud.

"Do you mean that you think you can find out the answer to it?" said the March Hare.

"Exactly so," said Alice.

HIDDEN INSTRUCTIONS

Okay... now you should have a pretty good idea what you are supposed to do. Create the best five card poker hand that you can using the “hidden” cards. Where are the hidden cards? Well, that's a secret! Maybe you've already found some of them, maybe not. When you find one, it should be pretty clear that it is a card and that it was hidden. If you have any suspicions, you may ask the referee – explain where you think a particular hidden card is, and if you are correct, he'll reward you with a copy of that actual playing card. There are clues everywhere, some more obvious than others; though none as apparent than this:

68103209550392281?

With luck (and keen perception) you should have five or more of the hidden cards collected by the end of the Party (I'm not going to tell you how many cards are actually hidden). With the collected cards your team should use five of them to create the best poker hand possible.

At the end of the puzzle competition, the referee will ask each team to reveal its poker hand. Bonus Points will be awarded to each team based on how good the five card hand is relative to the other teams:

Best hand:	2500 Points
2nd:	2000
3rd:	1500
4th:	1000
5th:	500
6th:	0 (if a sixth team plays)

If teams tie with their hands, points will be divided accordingly (so, if two teams tie for 2nd place, they would equally share 2000 + 1500 == 3500 Points, for an award of 1750 each). A team must have found at least five cards to compete in this bonus puzzle.

Note, just for alerting the referee that you have found these Hidden Instructions, your team will earn some additional points (based on a **Timed Score (🕓)** fashion – how quickly you found the Instructions compared to the other teams). These points are independent of the Bonus Points above which may be earned for a poker hand of hidden cards at the end of the day.

“Have you guessed the riddle yet?” the Hatter said, turning to Alice again.

“No, I give it up,” Alice replied: “what's the answer?”

“I haven't the slightest idea,” said the Hatter.

“Nor I,” said the March Hare.

Alice sighed wearily. “I think you might do something better with the time,” she said,
“than waste it in asking riddles that have no answers.”