

Engineering Language Formulas

Dougal Graham – dougalg@gmail.com

PPT @ <http://crs2.kmutt.ac.th/ceem/conferences>

Given

“Given that it’s an option, you should go for it.”

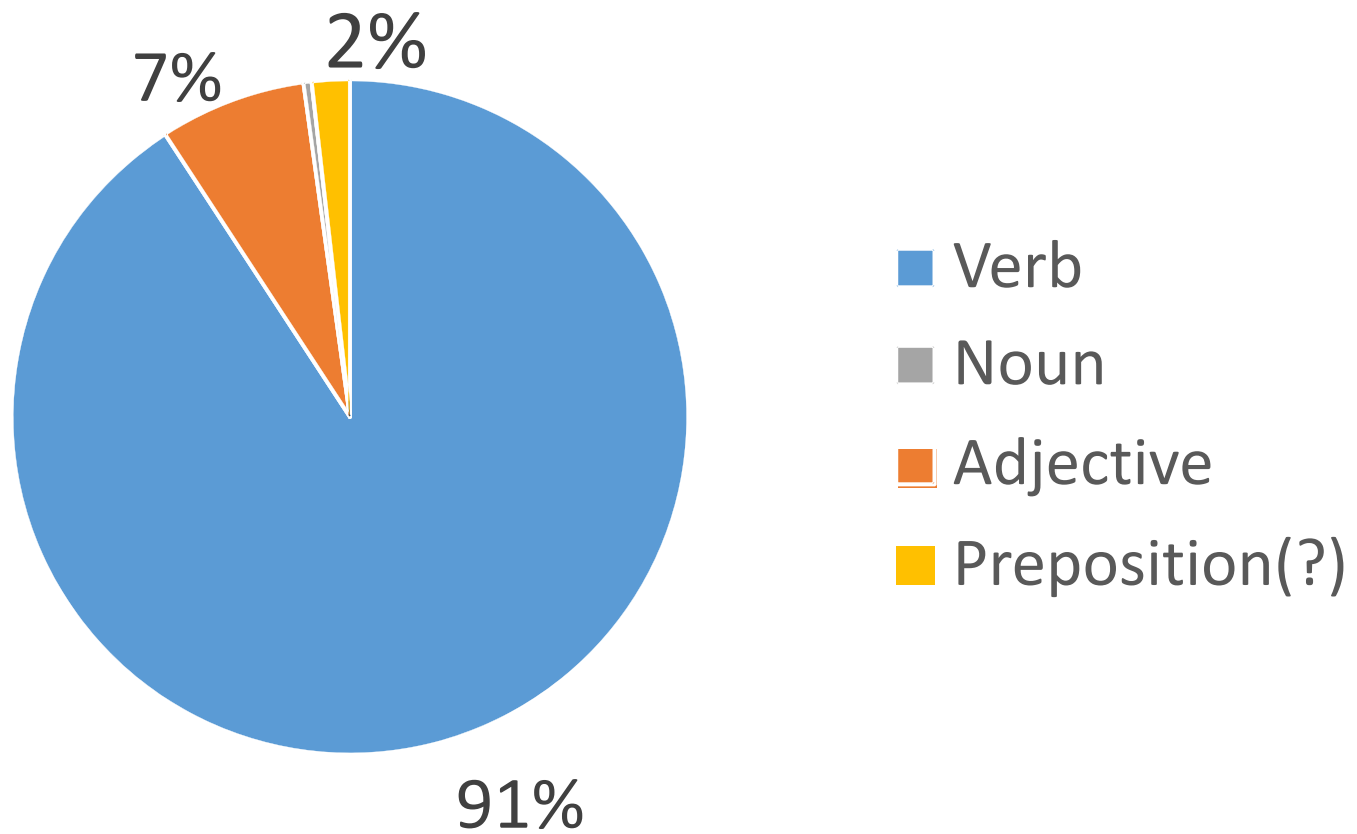
“The sequence of numbers for a given seed might be system-dependent”

“I can’t believe such a lenient sentence has been given.”

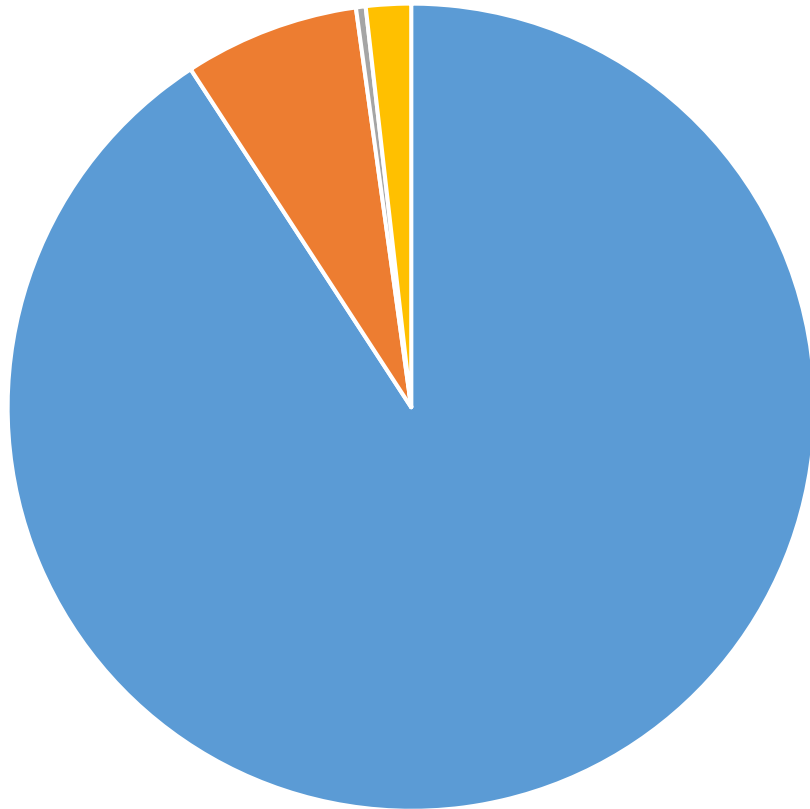
“Is that really a given in this situation?”

General English

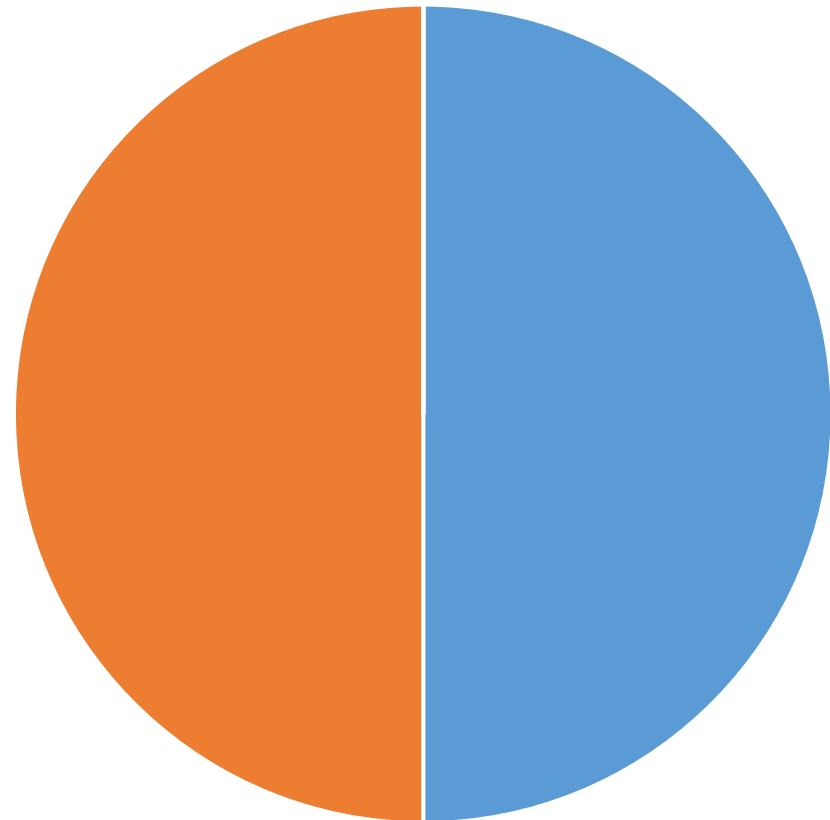
Part of Speech of "given"



General English



Engineering English



- Verb
- Adjective

EGP vs. ESP

- English for Specific Purposes
- English for General Purposes
- Student's background vs target language

Importance of Clear Definitions

- Defining the source
 - BNC, COCA, others...
- Need to define the target language
 - Engineering English Corpus: A corpus of textbooks

	A	B	C	D	E	F	H	I	J	K	L	M	O
1	NGram	f/1mil	BNC f/1mil	f	BNC f	LL	Simple MI	Z	Range	SC Range	Good	MI ©	Beta
2	what is the	510.01	21.13	610	797	2,372.63	2.26	310.82	38	6	1	7.50	162.30
3	the number of	382.93	108.86	458	4106	471.80	2.03	206.48	47	6	1	6.68	122.45
4	as shown in	322.73	6.39	386	241	1,868.05	3.23	758.70	40	6	1	10.64	106.00
5	# and #	299.32	154.06	358	5811	123.08	1.36	81.38	46	6	1	3.91	94.98
6	can be used	248.32	39.18	297	1478	557.55	3.55	970.36	43	6	1	11.81	83.59
7	the value of	226.58	4.61	271	174	1,302.71	3.67	1,054.87	26	5	1	12.91	77.47
8	shown in figure	231.59	40.09	277	1512	481.48	1.92	141.96	39	6	1	6.29	75.31
9	in terms of	222.40	108.81	266	4104	104.29	2.81	390.37	32	6	1	9.28	74.14
10	be used to	217.38	34.76	260	1311	482.93	2.83	392.74	43	6	1	9.31	72.60
11	# to #	195.64	84.02	234	3169	123.19	1.23	55.55	42	6	1	3.35	62.52
12	in which the	181.43	80.84	217	3049	105.69	1.56	81.26	37	6	1	5.20	59.16
13	to determine the	166.38	9.92	199	374	669.29	3.89	1,170.62	32	6	1	12.93	58.82
14	the centre of	175.58	9.20	210	347	746.13	1.88	117.83	39	6	1	6.27	57.94
15	is to be	173.90	50.19	208	1893	210.10	2.19	168.60	24	6	1	7.19	57.94
16	with respect to	171.40	71.58	205	2700	114.17	1.68	91.27	35	6	1	5.58	56.26
17	the amount of	168.05	39.93	201	1506	256.63	2.23	172.15	33	6	1	7.37	56.23
18	is shown in	163.04	7.71	195	291	721.63	2.46	223.39	35	6	1	8.09	55.07

Measuring Difference

- Structure
- Vocabulary
- Phrases

Top Words	Keywords
The	Flow
Of	Determine
A	Velocity
And	Figure
Is	Temperature
To	Energy

Example 1: Given

BNC

Rank	Freq	Phrase
1	14.07	given to the
2	11.51	to be given
3	9.85	be given to
4	7.55	should be given
5	7.27	given by the
28	2.51	in a given

EEC

Rank	Freq	Phrase
1	85.22	is given by
2	63.70	for a given
3	37.01	given by the
4	22.38	in a given
5	20.66	is given in
6	18.94	at a given

Respect & Let

Examples 2 & 3: Respect & Let

“Find the arc length of C by integrating with respect to x .”

“Let us consider the fluid flow through a pipe.”

“Let *the capacity of each arc (Y_j, t)* be v_j .”

Bonus Material

Teaching

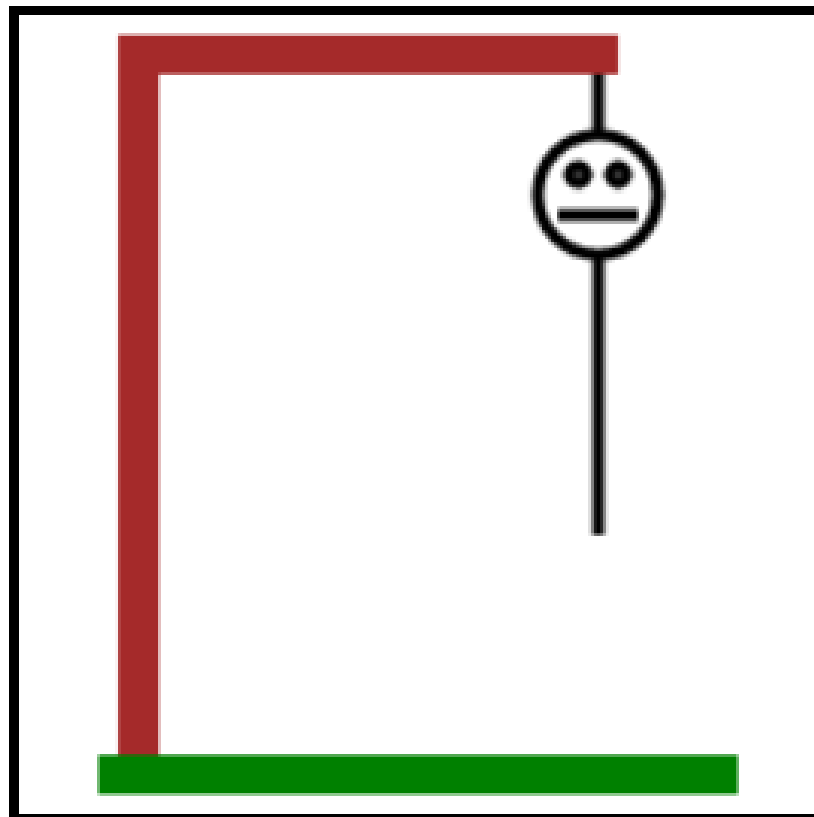
- Try to get real-world examples
- Try to foster induction
- Holistic approach, and awareness raising

- Take a look at our materials online, if they look interesting, try to replicate them for your field

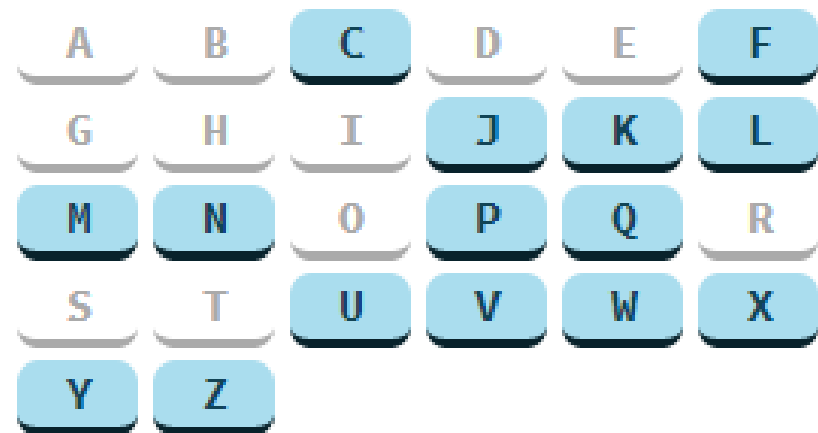
Hangman

This game is a fun way to practice important phrases used in writing engineering English. If you need help, click the ? button in the top right.

You can type the letters using your keyboard.



I S T O H A _ E A



Try



1. [redacted] materials leads to the cheapest bicycle frame given stiffness: mild steel, aluminum alloy, or titanium alloy?

which of the following

each of the following

explain the difference between

2. How is [redacted] properties of a simple harmonic oscillator affected by doubling the amplitude: period, and force constant?

let us consider a

3. [redacted] free available chlorine and combined available chlorine, and state which is the more effective disinfectant.

what is the difference between

for example consider the

Try



You had 5 mistakes. Look at the example sentences and **try to find a pattern** in the examples. You can check these again later.

which of the following

let us consider a


what is the difference between

explain the difference between

each of the following

Example Sentences

1. **Let us consider a** body b which is getting deformed under the action of forces.
2. **Let us consider a** body b whose position in the space is changing with time under the action of forces.

 You had 5 mistakes. Here are some example sentences and patterns to follow You can check these again later.

which of the following

let us consider a

what is the difference between

explain the difference between

each of the following

Pattern

This phrase always starts a sentence or clause.

To develop the method of least work, **let us consider a statically indeterminate beam** with unyielding supports subjected to an external loading w , as shown in Fig. 14.6.

The phrase is usually followed by **a noun**. In the example above, "**statically indeterminate beam**" is the noun.

This phrase always introduces a theoretical (not real) example.

Example Sentences

1. **Let us consider a** point f , a cross-section plane with

Selected References

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