

Problem Set 3, Problems 0 and 1

Problem 0: Reading and response

Put your response to the reading below.

- 1) One of the bug's origins that strikes me as the "most preventable" is having the same code data converter as a backup. The reason it failed is because of the 64 bit conversion to a 16 bit conversion. If they had more data/storage space and they should've predicted the worst out of it.
- 2) No, I don't agree with the statement because I feel like they're making it seem like mechanical engineering is somewhat easier. Instead they have machines who use mathematically made shapes to improve lives that has accumulated over many years. However, code is like the same thing where many people keep adding onto it over-time, but there is not one best answer for one specific task. There could be many. However, there could be mathematically only one best solution to lift an object...

Problem 1: Tracing list comprehensions and recursion

1-1

x	scored_vals
-2	[4, -2]
1	[1, 1]
3	[9, 3]
-4	[16, -4]

1-2 value assigned to bestpair

[16, -4]

1-3 value returned by mystery1

-4

1-4

mystery2('sizes')

```
s = 'sizes'
result_rest = mystery2('izes') = 'sezi'
Return 'sezi'
```

mystery2('izes')

```
s = 'izes'
result_rest = mystery2('zes') = 'sezi'
return 'sezi'
```

mystery2('zes')

```
s = 'zes'
result_rest = mystery2('es') = 'sez'
return 'sez'
```

mystery2('es')

```
s = 'es'
result_rest = mystery2('s') = 'se'
return 's'
```

mystery2('s')

```
s = s
result_rest = mystery2(...) = ...
return ...
```

mystery2(...)

```
s = ...
result_rest = mystery2(...) = ...
return ...
```

1-5

'sezi'