



Curtin University

# Problem Solving Methodology

**ISYS5002, School of Marketing and Management**

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I acknowledge the traditional custodians of the land on which I work and live, and recognise their continuing connection to land, water and community. I pay respect to elders past, present and emerging.

“The biggest mistake I see new programmers make is focusing on learning syntax instead of learning how to solve problems.”

— V. Anton Spraul, Think Like a Programmer: An Introduction to Creative Problem solving

# Problem Solving Methodology

- State the problem clearly
- Describe the input and output
- Work a simple example by hand
- Develop an algorithm (and convert to Python)
- Test solution with a variety of data

“If you can’t explain something in simple terms, you don’t understand it.”

— Richard Feynman

# Rubber Duck

Can I help?





## ISYSS5002 – Problem Solving Methodology

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# Pseudocode

```
Pick up dictionary  
Open to middle of dictionary  
Look at page  
If word is on page  
    Read definition  
Else if word is earlier in book  
    Open to middle of left half of book  
    Go back to line 3  
Else if word is later in book  
    Open to middle of right half of book  
    Go back to line 3  
Else  
    Quit
```



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