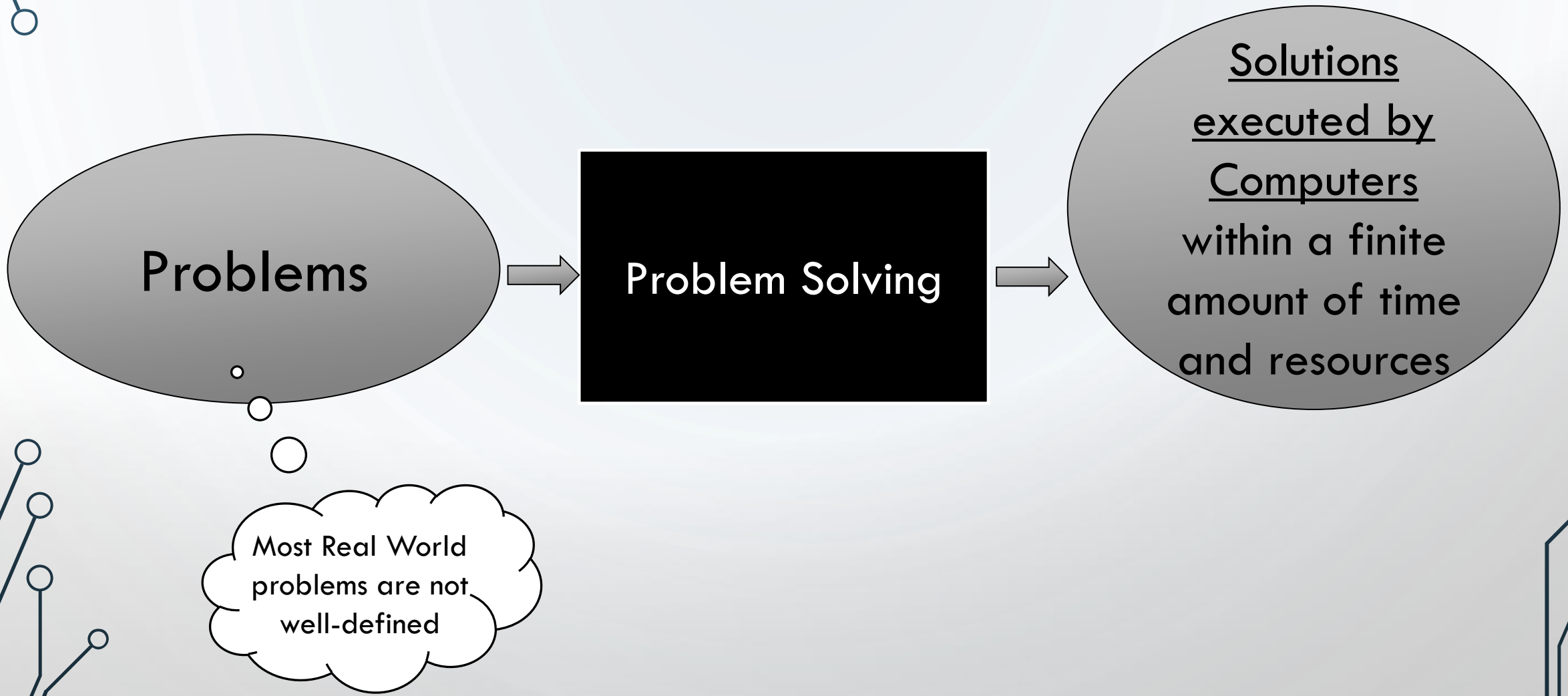
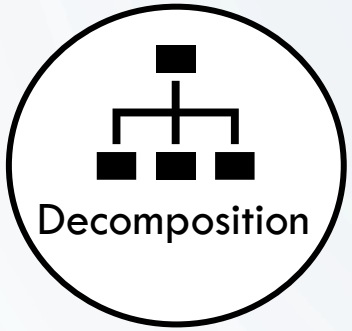
H2 COMPUTING

9569

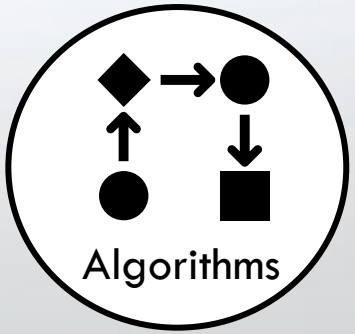
CZ2

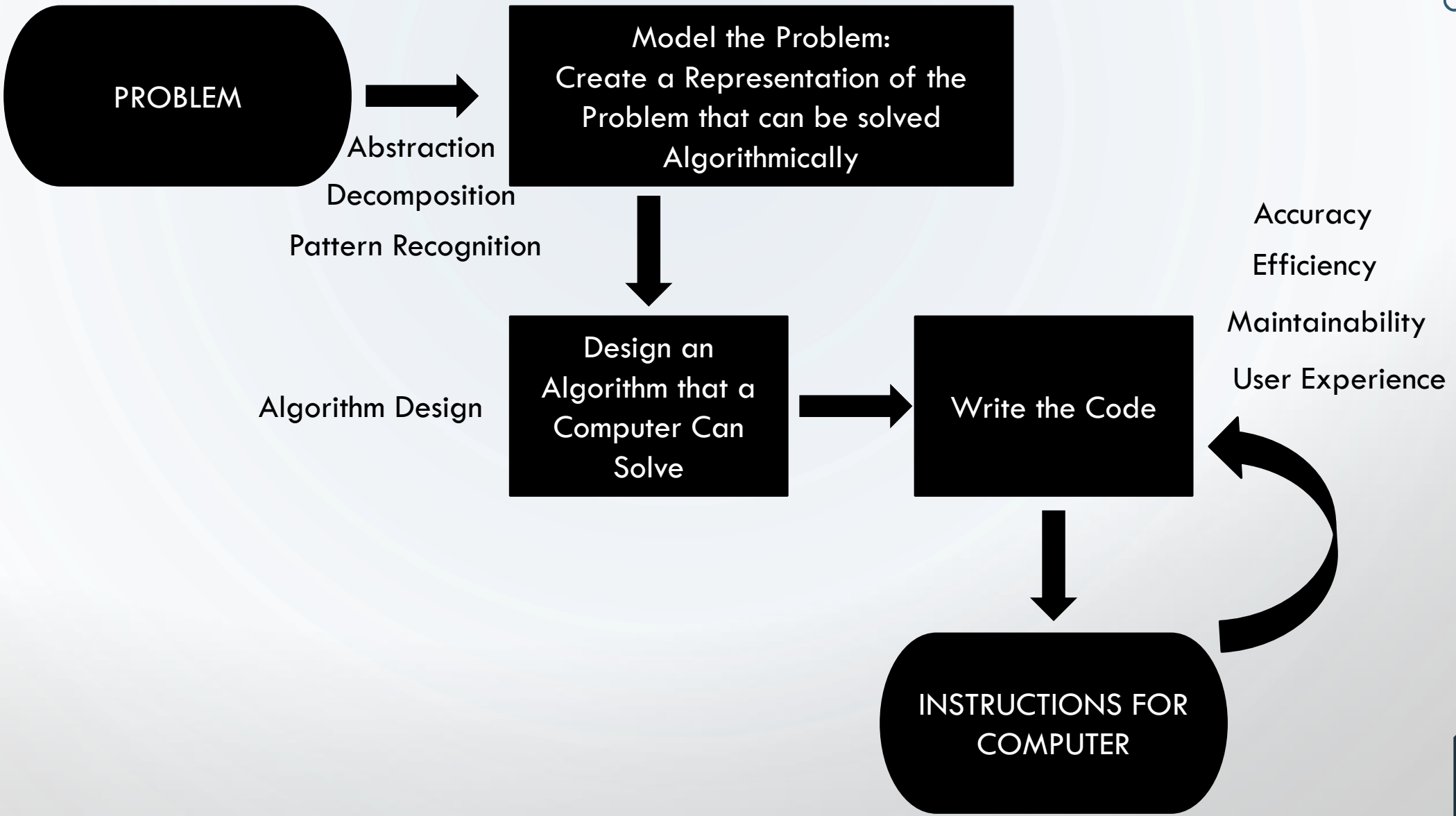
WHAT IS COMPUTING ?

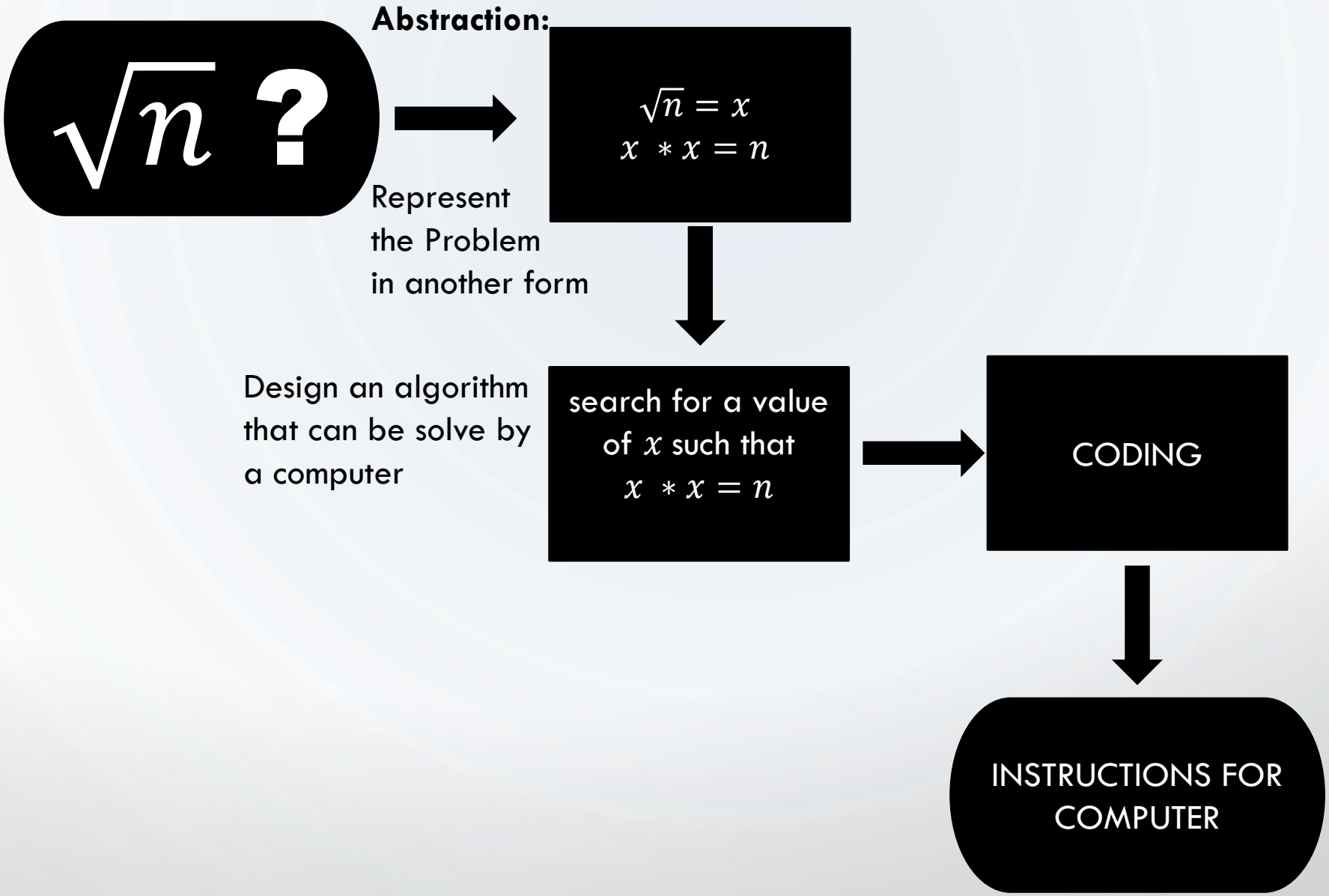




COMPUTATIONAL THINKING




PROBLEM
Abstraction
Decomposition
Pattern Recognition
Model the Problem:
Create a Representation of the Problem that can be solved Algorithmically
Algorithm Design
Design an Algorithm that a Computer Can Solve
Write the Code
Accuracy
Efficiency
Maintainability
User Experience
INSTRUCTIONS FOR COMPUTER


$\sqrt{n}$?
Abstraction:
$\sqrt{n} = x$
$x * x = n$
Represent the Problem in another form
Design an algorithm that can be solve by a computer
search for a value of x such that
$x * x = n$
CODING
INSTRUCTIONS FOR COMPUTER

Find all the close contacts of a person infected with Covid-19 ?

Abstraction:

Represent the Problem in another form

Design an algorithm that can be solve by a computer

- **Define Close Contact ?**
- **How close ?**
- **Time span of contact ?**
- **Close contact of Close contact?**

CODING

INSTRUCTIONS FOR COMPUTER

9569 TOPICS

M1: Algorithms and Data Structures

M2: Programming

M3: Data and Information

M4: Computer Networks

Primary Programming Language: Python 3

Other: SQL, HTML/CSS