CSC 151 Spring 2020
Topic: An Introduction to Algorithms

January 22, 2019

Day 01

Agenda for today

- Introduction
- What is Computer Science?
- An Everyday Algorithm
- Wrap-up

Introduce yourself

1) Please make a Name Card

Preferred name
Preferred Pronouns (optional)

2) With the person sitting next to you

- My name is _____
- You can call me _____
- This is my _____ year/day at Grinnell College!
- (optional) My preferred pronouns: _____
  (he/him/his or she/her/hers or they/them/theirs or something else)
- My favorite animal is _____

Class Mentors

Stefan

- In class assistance
- Weekly Mentoring Sessions

What is Computer Science?

Form a group of 2 or 3 with your neighbor(s)

- Please be inclusive – make sure those around you have a group
- Make sure you know each other's names!

Work with your group to answer the question **"What is Computer Science?"** You will have about five minutes before we start our discussion.

What is Computer Science?

Computer Science studies **algorithmic processes** that describe and transform **information**

An **Algorithm** :

A sequence of instructions for solving a problem

Information:

What physical artifacts contain information? (files, DNA, etc)

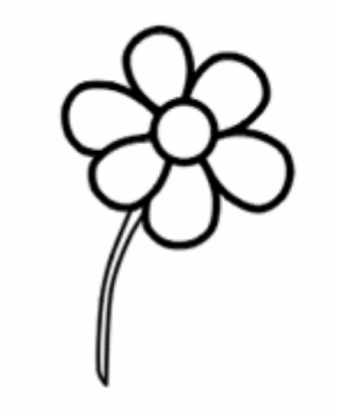
How do we organize information (lists, outline, table, etc)

An Everyday Algorithm

Get into a group of 3-4 people with the same color card as you.

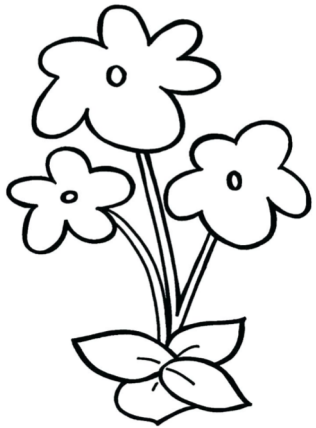
Make sure you know each others names

Task: Write an algorithm for drawing a flower









An Everyday Algorithm

Task: Write an algorithm for drawing a flower

Write your algorithm on paper without any drawings.

Things to consider:

Make sure all group members agree on the desired output.

Ambiguity is dangerous!

There are multiple processes to achieve the same goal.

Testing your algorithm

How did it go?

Upcoming Work

http://www.cs.grinnell.edu/~eikmeier/csc151S20

Assignment 1: Welcome

Complete this assignment by 10:30pm on Thursday.

Academic Honesty Policy – turn in on Friday

Readings

There are four short readings on the schedule.
Complete them before class on Friday.

Join Piazza - piazza.com/grinnell/spring2020/csc151

Other News

Student Listening Session

Wednesday, January 22 – 8pm – JRC 101
Science Working Group on Diversity and Inclusion
Share ideas on what students need.

Peer Support

Are you involved in any activities on campus?
Let us know. You can earn extra credit for supporting your classmates

MAP Summer Opportunities Session

Thursday January 23 – 4:00pm – Noyce 3821

Wrap up

Individually write a short reflection about this activity. Try to write continuously for around 5 minutes. Use any of the following prompts:

- What were some benefits to working with a team on this exercise?
- What are four things that you learned by doing this exercise?
- What happens if the drawer makes an error? Is there any way to recover in your algorithm?

Turn this in as you walk out the door. It will count towards your participation for today.