

September 10th

Due Today: Syllabus Slip

Due Next Class: Video 1.1 + HW 1.1

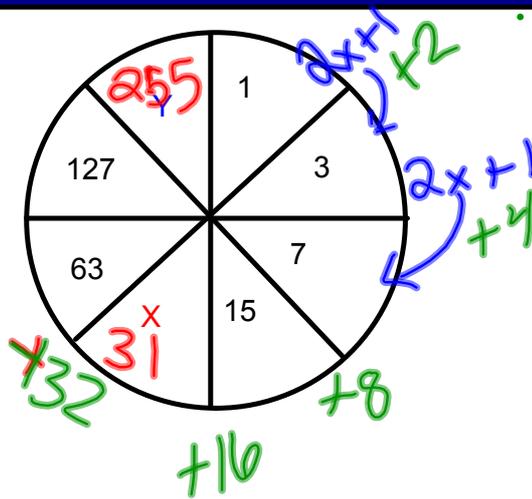
Unit: Beat the Basics

Lesson #: 1.1: Intro to Problem Solving



Get Ready:

Put your (detached) syllabus slip on your desk and try to find the values of the X and Y in the puzzle to the right.



Syllabus Slip

What is Problem Solving?

- an issue, unknown ^{Real World Situation}
- find a solution
- multiple solution paths
- manipulate the facts
- no clear answer

~~- an equation~~

$$2x + 5 = 25$$

- maybe more than one answer
- Big/complex problems

Strategies

- Picking/highlighting important info./keywords
- Use prior knowledge/common sense
- find multiple ways to do the problem (be open to them all)
- Re-read task questions/Directions
- Use Lots of Math
- look for a pattern
- try to model w/ an equation
- Draw a Picture/Chart/table/graph

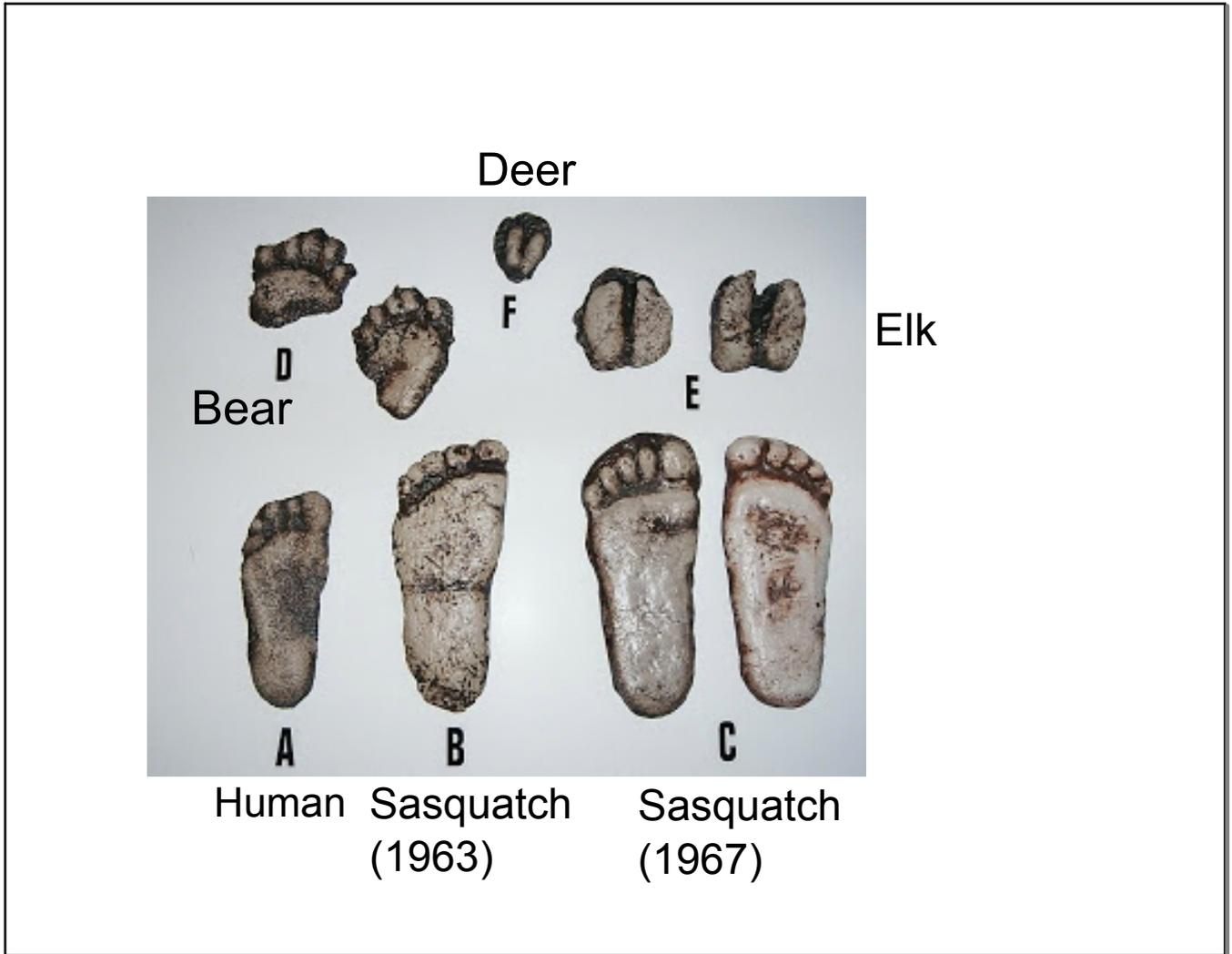
Problem Solving Steps

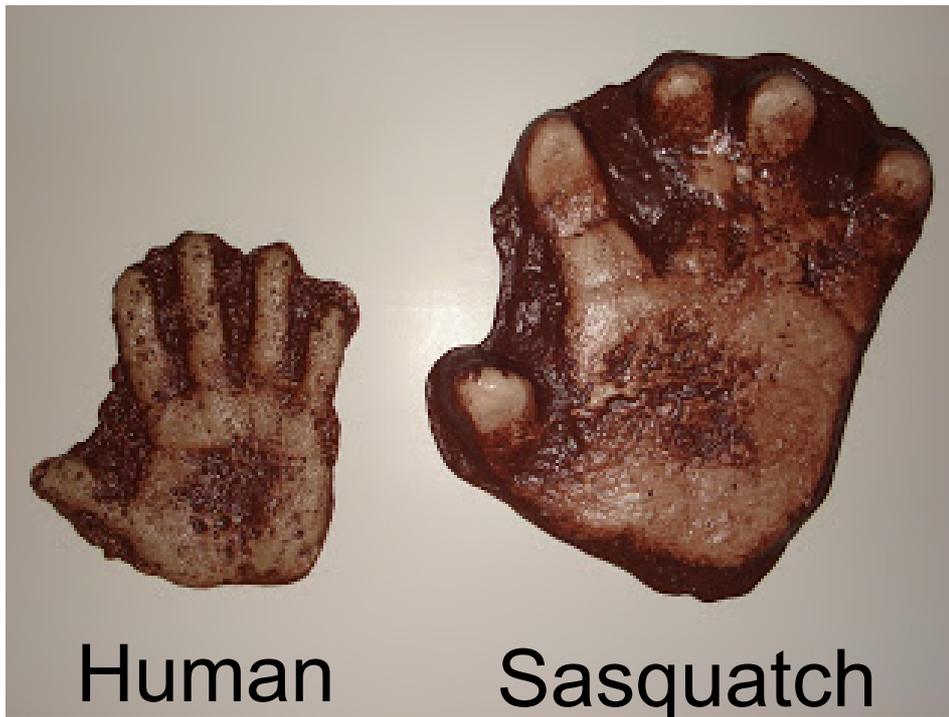
1. Read and Reread the problem. Be sure everyone in your group understands the problem and what is being asked.
2. Discuss the problem, what should your group do? What strategies are appropriate? Choose a strategy.
3. Get started! Assign jobs! Work out the problem on scrap paper first. Work together!
4. Questions? See if anyone in your group can answer them first.
5. Come up with a final solution- do all group members agree?
6. Create the solution poster!

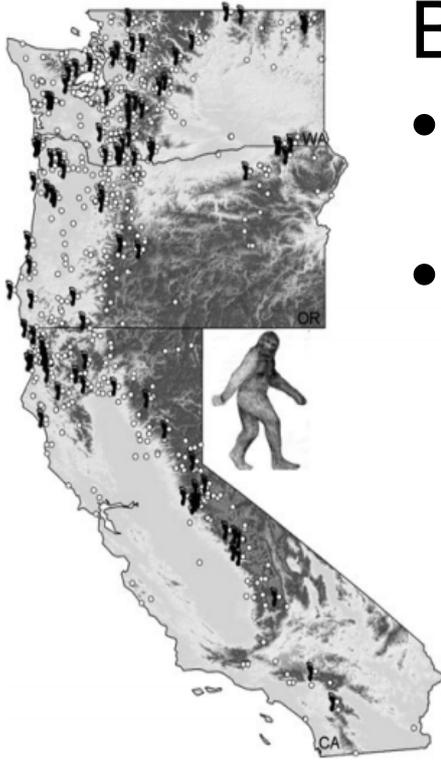
Solution Poster

1. Title!
2. Explain the problem, DO NOT rewrite, summarize in your own words!
3. Show ALL your work - use small text and arrows to explain, including graphs and charts! (If you used different strategies, show all methods.)
4. Clearly write up your solution and conclusions! (if you don't have time to finish you should write up what you would do next)
5. Add final touches (more info, pictures, diagrams, etc)
6. Make sure all group member's names are on the poster!
7. Get some tape and hang up your poster- spread them out!









Bigfoot Sightings

- white points = visual/ auditory detection
- black footprints = foot data

'Bigfoot' Foot Cast



1996, outside of Walla Walla Washington

Task:



Examine the copy of the foot cast in your group. Analyze it using any mathematical means you see fit to **determine how BIG Bigfoot is from his FOOT.**

Available tools: Ruler, Tape, Calculator, Graph paper, Markers

You may not use the internet to research this question.

Keep in mind the problem solving steps/strategies:

- Does everyone understand the problem?
- Discuss and choose a strategy.
- Make use of all members of your group.
- Work through the problem on scrap paper first before making your poster.

Gallery Walk

Post-it Feedback

- be specific and constructive about the math!
 Good examples? Bad examples?
- ask questions about the work / process
- be helpful to the makers, how can we make the solution poster better?

Problem Solving Debrief

- what went well?
- what was challenging?
- how was the feedback?
- how was your timing?

Recap

Today in MATH

Big Foot

Homework:

Video 1.1 + Notes + HW 1.1

Next Class:

Different types of #'s