Computer Science Team Week 7

Henry Gustafson Julian Bauer

The College Preparatory School

Computer Science Team November 27, 2023

What're infix, prefix, and postfix??

- infix: 1 + 1
- prefix: + 11
- postfix: 11+

Fun Coding Problems

Theme: thanksgiving!

Problem Pie

Problem Pie Li'il Antony wants to count the total pies in the oven and on his table. Given *string*, a string containing a math expression consisting of two integers and an addition symbol in infix notation, output the total amount of pies.

```
def count_pies(string: str) -> str
```

Problem Pie

Example

```
assert count_pies("2 + 13") == "15"
```

Problem Gravy

Problem Gravy Dr. Aardvark Finkel is treating a disease that his Gravy has. The Gravy has written the a mathematical expression, *gravys_confession*, in either infix, postfix, or prefix notation, depending on the disease the Gravy has. Correctly diagnose the Gravy's disease.

```
def get_disease(
    gravys_confession: str
) -> str
```

Problem Gravy

Example

```
assert get_disease("3 5 +") -> "postfix"
```

Problem Turkey

Problem Turkey Johnny wants to count the turkeys in his shed. Given *string*, a string containing a math expression consisting of positive integers, addition symbols, and subtraction symbols in prefix notation, output what that expression evaluates to.

```
def count_turkey(string: str) -> [int]
```

Problem Turkey

Example

```
assert count_turkey(
    "+ + 1 1 2"
) == 4
```

The End

Questions? Comments? Remarks? Considerations? Confusions?