Homework

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A Recursion Problem

In Chapter 20 you learned about the problem-solving technique called recursion, in which large problems are solved by reducing them to **smaller problems of the same form.** To solve a recursive problem, you use the following **template**, called the **recursive paradigm**, taking a **recursive leap of faith**. Apply this technique by:

1. Identifying the simple case(s) for which the answer is easily determined.
2. Identifying a simpler problem **of the same form**.

Recursive Find

Use recursion to implement a function: **`find(s, t)`** that tests whether the **`string t`** is contained in a **`string s`**. For instance, calling the function like this:

```
1 | find("Mississippi", "sip");
```

A recursive find.

returns **`true`**, since **`"sip"`** is contained in **`"Mississippi"`**.

You **must use recursion to complete this**, not loops; you obviously may not use the **`string find()`** member function either. Here's the basic strategy:

- If the text starts with the **`string`** you want to match, then you are done.
- If the **`string s`** is smaller than the **`string t`**, you are also done.
- If not, check the sentence without the first character.

If you get stuck, be sure to ask on Piazza.

Again, you need to use recursion, not loops to complete your function. If you get stuck, well, you know what to do.