

## The Design Recipe

For the word problems below, assume `animalA` and `animalB` are defined as the data rows for Felix and Midnight, respectively.

**Directions:** Define a function called `lookup-fixed`, which looks up whether or not an animal is fixed.

## Contract and Purpose Statement

*Every contract has three parts...*

#	lookup-fixed::	( r :: Row)	->	Boolean
	<i>function name</i>	<i>domain</i>		<i>range</i>

# Consumes an animal, and looks up the value in the fixed column.

---

*what does the function do?*

Examples 1

Write some examples, then circle and label what changes...

examples:

\_\_\_\_\_ ( \_\_\_\_\_ ) **is** \_\_\_\_\_  
*function name*                      *input(s)*                      *what the function produces*

function name ( input(s) ) is what the function produces

end

## Definition

Write the definition, giving variable names to all your input values...

$$\frac{\text{fun lookup-fixed(}}{\textit{function name}} \quad \frac{\text{r)}:}{\textit{variable(s)}}$$

```
r["fixed"]
```

---

*what the function does with those variable(s)*

end

**Directions:** Define a function called `lookup-sex`, which consumes a Row of the `animals` table and looks up the sex of that animal.

Contract and Purpose Statement 1

Every contract has three parts...

# :: ->

function name	domain	range

# \_\_\_\_\_  
what does the function do?

## Examples

Write some examples, then circle and label what changes...

examples:

\_\_\_\_\_ ( \_\_\_\_\_ ) is \_\_\_\_\_  
*function name*                      *input(s)*                      *what the function produces*

\_\_\_\_\_ ( \_\_\_\_\_ ) is \_\_\_\_\_  
*function name*                      *input(s)*                      *what the function produces*

end

## Definition

Write the definition, giving variable names to all your input values...

**fun**                      (                      ) :  
                    *function name*                      *variable(s)*

---

*what the function does with those variable(s)*

end