# The Design Recipe - Compute

Referenced from lesson [Defining Table Functions](https://www.bootstrapworld.org/materials/spring2021/en-us/courses/data-science/lessons/defining-table-functions/index.shtml) (Spring, 2021)

For the word problems below, assume dog-row, cat-row, young-row and old-row are already defined as data rows.

**Directions**: Define a function called is-cat, which consumes a Row of the animals table and *computes* whether the animal is a cat.

| **Contract and Purpose Statement** |  |
| --- | --- |

*Every contract has three parts…​*

is-cat::Row->Boolean

Consumes an animal, and computes whether the species equals "cat"

| **Examples** |  |
| --- | --- |

*Write some examples, then circle and label what changes…​*

examples:

\_\_\_\_is-cat (dog-row)\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_)\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

end

| **Definition** |  |
| --- | --- |

*Write the definition, giving variable names to all your input values…​*

fun is-cat(r):

\_\_\_\_r["species"] == "cat"

end

**Directions**: Define a function called is-young, which consumes a Row of the animals table and *computes* whether it is less than four years old.

| **Contract and Purpose Statement** |  |
| --- | --- |

*Every contract has three parts…​*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_::\_\_\_\_\_\_->\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| **Examples** |  |
| --- | --- |

*Write some examples, then circle and label what changes…​*

examples:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_)\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

end

| **Definition** |  |
| --- | --- |

*Write the definition, giving variable names to all your input values…​*

fun \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(\_\_):

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

end

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