

## Word Problem: next-state-tick

Write a function called *next-state-tick*, which takes in a *SunsetState* and returns a *SunsetState* in which the new x-coordinate is 8 pixels larger than in the given *SunsetState* and the y-coordinate is 4 pixels smaller than in the given *SunsetState*.

Contract+Purpose Statement

# *next-state-tick* :: *SunsetState* → *SunsetState*

# Consumes a *SunsetState* and produces the next *SunsetState* by moving the sun 8 pixels to the right and 4 pixels down

Give Examples

Write examples of your function in action

examples:

*next-state-tick* ( *sunset*(50, 330) ) is

the user types...

*sunset*(50 + 8, 330 - 4)

...which should become

*next-state-tick* ( *sunset*(240, 120) ) is

the user types...

*sunset*(240 + 8, 120 - 4)

...which should become

end

Function

Circle the changes in the examples, and name the variables.

Write the code, copying everything that isn't circled, and using names where you find variables!

fun *next-state-tick* ( *a-sunset* ) :

*sunset*(*a-sunset*.x + 8, *a-sunset*.y - 4)

end