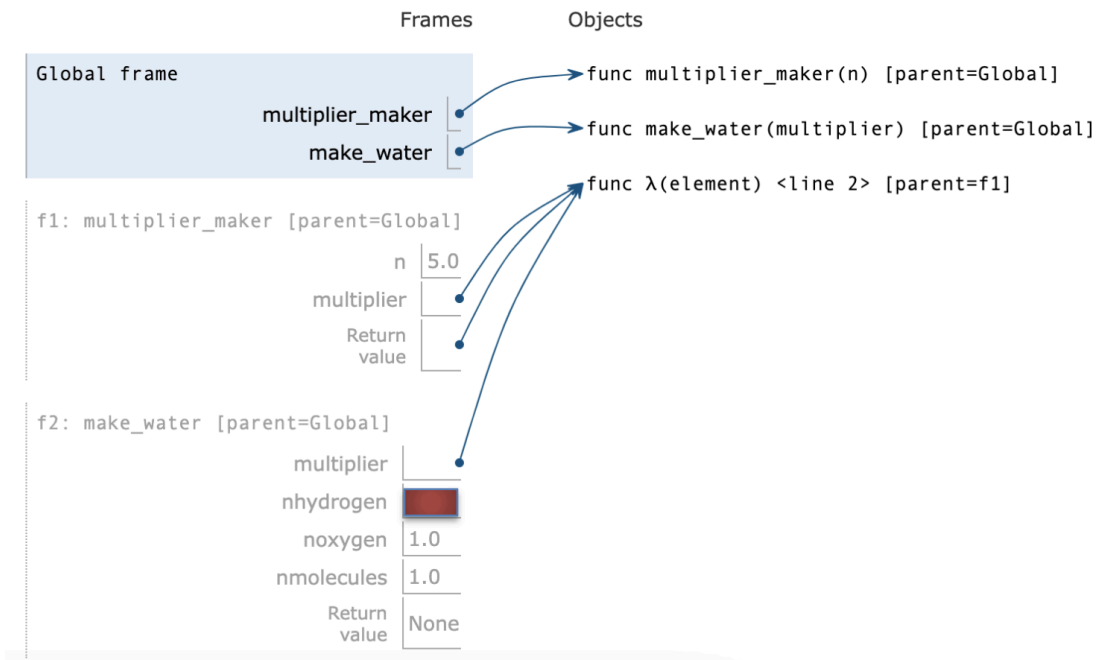


## (8.0 points) Chem 105

Consider the environment diagram (and print output) below, followed by the code that generated it.

Print output (drag lower right corner to resize)

```
10.0 atoms hydrogen.  
5.0 atoms oxygen.  
Produces 5.0 molecules of water
```



```
def multiplier_maker(n):  
    return lambda element : _____(a)* n
```

```
def make_water( multiplier ):  
    nhydrogen, noxygen = 2.0, 1.0  
    nmolecules = _____(d)  
    print( str(multiplier(nhydrogen) ) + ' atoms hydrogen.' )  
    print( str(multiplier(noxygen) ) + ' atoms oxygen.' )  
    print( 'Produces ' + str(multiplier( _____(b) )) + ' molecules of  
water.' )
```

```
make_water( _____(c)(5.0) )
```

1. (2.0 pt) Which one of these could fill in blank **(a)**?

- A. n
- B. element
- C. multiplier
- D. make\_water
- E. 3.0
- F. 5.0

2. (2.0 pt) Which one of these could fill in blank **(b)** to get the environment diagram shown?

- A. nmolecules
- B. nhydrogen
- C. noxygen
- D. lambda x : x
- E. 10.0
- F. 1.0

3. (2.0 pt) Which one of these could fill in blank **(c)**?

- A. element
- B. make\_water
- C. nmolecules
- D. lambda x : multiplier\_maker(x)
- E. multiplier
- F. lambda element : element \* n
- G. multiplier\_maker

4. (2.0 pt) Which one of these could fill in blank **(d)**?

- A. 3.0
- B. 6.0
- C. 9.0
- D. 1.0
- E. 9.0, 3.0
- F. 5.0
- G. multiplier