Worksheet 4: Solutions

Frames   Objects

Global frame

bros

frat

list
| 0 | 1 |
| "bro2" | |

list
| 0 | 1 |
| "bro3" | "psi" |

list
| 0 | 1 | 2 | 3 | 4 | 5 |
| "theta" | "kappa" | | "beta" | "bro3" | "psi" |

Frames   Objects

Global frame

sisters

srat

list
| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| "sis3" | "sis2" | "sis3" | "phi" | "sis1" | "sis2" | "phi" |

list
| 0 | 1 |
| "phi" | |

list
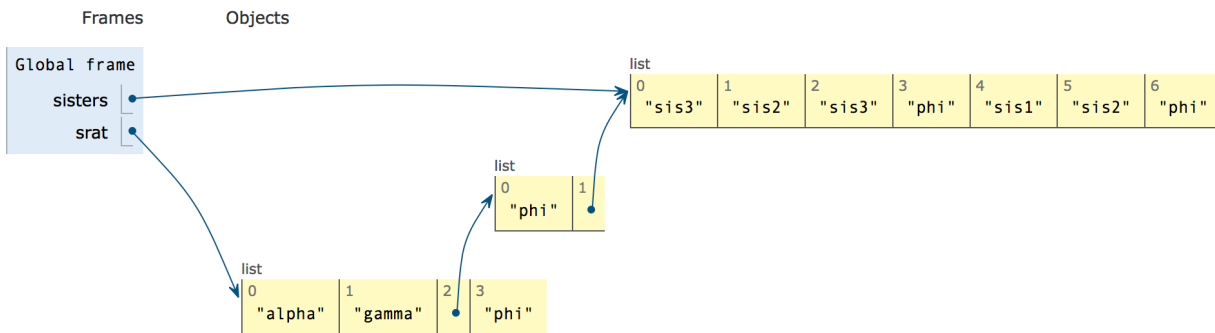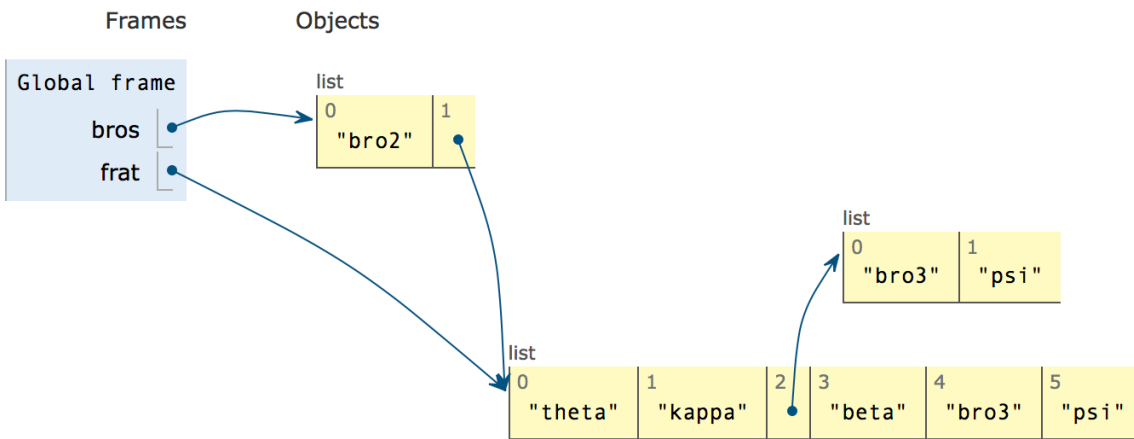| 0 | 1 | 2 | 3 |
| "alpha" | "gamma" | | "phi" |

```
>>> [2*x for x in [2, 4, 6, 8] if x%2 != 0]
[]
>>> ["enigma" for b in ["i", "love", "cs"] if b == "love"]
["engima"]
>>> [fun%work for fun, work in [[1, 2], [3, 4], [10, 2]]]
[1, 3, 0]
```

```
def trim(t):
        if (is_leaf(t)):
                return tree(0)
        else:
                return tree(label(t), [trim(b) for b in branches(t)])
```

(In this case, we do need a base case! What would happen if we didn't have it?)

```python
if label(t) % 2 != 0:
            return False
    else:
            for b in branches(t):
                    if not twos(b):
                            return False
            return True
```