

```
(lookup2                                     =>
  (make-db-node
    (make-person 9 'Luol)
    (make-db-node
      (make-person
        1
        'Derrick)
      false
      false)
    (make-db-node
      (make-person
        24
        'Tyus)
      false
      false)
  24)
```

```

(lookup2
  (make-db-node
    (make-person 9 'Luol)
    (make-db-node
      (make-person
        1
        'Derrick)
      false
      false)
    (make-db-node
      (make-person
        24
        'Tyus)
      false
      false))
  24)
  => (or (lookup2
    (make-db-node
      (make-person
        1
        'Derrick)
      false
      false)
    24)
    (lookup2
      (make-db-node
        (make-person
          24
          'Tyus)
        false
        false)
      24))

```

```
← (or (lookup2
      (make-db-node
        (make-person
          1
          'Derrick)
          false
          false)
        24)
      (lookup2
        (make-db-node
          (make-person
            24
            'Tyus)
          false
          false)
        24) )
```

```
(or (or (lookup2
        false
        24)
      (lookup2
        false
        24))
  (lookup2
    (make-db-node
      (make-person
        24
        'Tyrus)
      false
      false)
    24))
```

```
⇐ (or (lookup2
        (make-db-node
          (make-person
            1
            'Derrick)
          false
          false)
        24)
      (lookup2
        (make-db-node
          (make-person
            24
            'Tyrus)
          false
          false)
        24))
```

```
(or (or (lookup2
        false
        24)
      (lookup2
        false
        24))
  (lookup2
    (make-db-node
      (make-person
        24
        'Tyrus)
      false
      false)
    24))
```

⇒

```

(or (or (lookup2
        false
        24)
        (lookup2
         false
         24))
    (lookup2
     (make-db-node
      (make-person
       24
       'Tyrus)
      false
      false)
     24))
⇒ (or (or false
          (lookup2
           false
           24))
      (lookup2
       (make-db-node
        (make-person
         24
         'Tyrus)
        false
        false)
       24))

```

```
← (or (or false
      (lookup2
        false
        24) )
      (lookup2
        (make-db-node
          (make-person
            24
            'Tyrus)
          false
          false)
        24) )
```

```
(or (lookup2 false 24) ← (or (or false
    (lookup2
      (make-db-node
        (make-person
          24
          'Tyrus)
          false
          false)
        24))
    (lookup2
      (make-db-node
        (make-person
          24
          'Tyrus)
          false
          false)
        24))
```



```
(or (lookup2 false 24) =>
    (lookup2
      (make-db-node
        (make-person
          24
          'Tyros)
        false
        false)
      24))
```

```
(or (lookup2 false 24) => (or false
  (lookup2
    (make-db-node
      (make-person
        24
        'Tyrus)
      false
      false)
    24))
  (lookup2
    (make-db-node
      (make-person
        24
        'Tyrus)
      false
      false)
    24))
```

```
← (or false
      (lookup2
        (make-db-node
          (make-person
            24
            'Tyrus)
          false
          false)
        24) )
```

```
(lookup2
  (make-db-node
    (make-person
      24
      'Tyrus)
    false
    false)
  24)
```

```
← (or false
      (lookup2
        (make-db-node
          (make-person
            24
            'Tyrus)
          false
          false)
        24) )
```

```
(lookup2                               =>
  (make-db-node
    (make-person
      24
      'Tyrus)
    false
    false)
  24)
```

```
(lookup2                                     => true
  (make-db-node
    (make-person
      24
      'Tyfus)
    false
    false)
  24)
```

done!

```
(lookup3                                     =>
  (make-db-node
    (make-person 9 'Luol)
    (make-db-node
      (make-person
        1
        'Derrick)
      false
      false)
    (make-db-node
      (make-person
        24
        'Tyus)
      false
      false) )
24)
```



```

(lookup3
  (make-db-node
    (make-person 9 'Luol)
    (make-db-node
      (make-person
        1
        'Derrick)
      false
      false)
    (make-db-node
      (make-person
        24
        'Tyruş)
      false
      false))
  24)
⇒ (lookup3
  (make-db-node
    (make-person
      24
      'Tyruş)
    false
    false)
  24)

```

```
← (lookup3  
  (make-db-node  
    (make-person  
      24  
      'Tyrus)  
      false  
      false)  
    24)
```

true

```
← (lookup3  
  (make-db-node  
    (make-person  
      24  
      'Tyrus)  
      false  
      false)  
    24)
```

done!