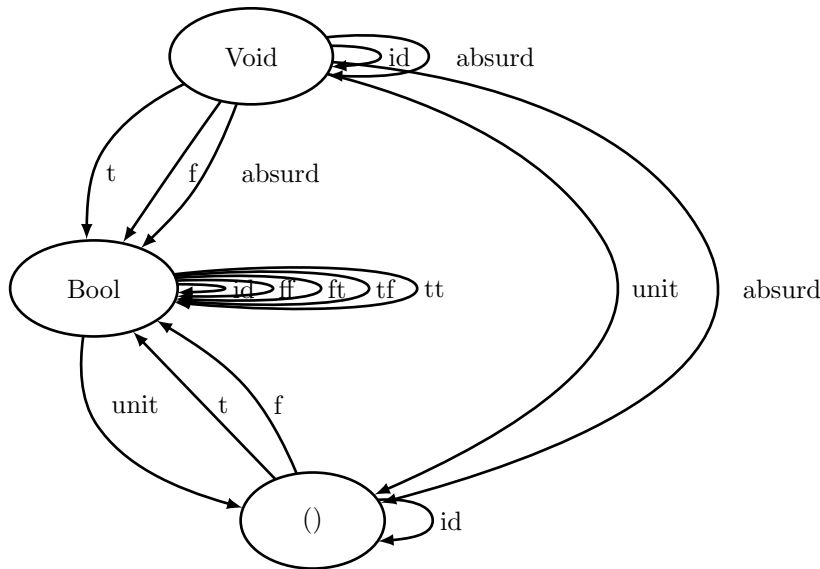


Only 1 and 6

Ex 1

```
// RUST
fn memoize<U, V>(f: impl Fn(U) -> V) -> impl Fn(U) -> V
where
    U: Eq + Hash + Copy,
    V: Copy,
{
    let s: RefCell<HashMap<U, V>> = RefCell::new(HashMap::<U, V>::new());
    move |x: U| -> V {
        let mut h = s.borrow_mut();
        if !h.contains_key(&x) {
            let v = f(x);
            h.insert(x, f(x));
            v
        } else {
            *h.get(&x).unwrap()
        }
    }
}
```

Ex 6



```
{-# LANGUAGE LambdaCase #-}
```

```
import Data.Void
```

```
ff :: Bool -> Bool
ff = \case False -> False; True -> False
```

```
ft :: Bool -> Bool
ft = \case False -> False; True -> True
```

```
tf :: Bool -> Bool
tf = \case False -> True; True -> False
```

```
tt :: Bool -> Bool
tt = \case False -> True; True -> True
```

```
t :: a -> Bool
t _ = True
```

```
f :: a -> Bool
f _ = False
```

```
unit :: a -> ()
unit _ = ()
```