Handout # 4
Referencing Environment Example

1 Definitions

scope The scope of a named binding is the textual region of the program in which the binding is visible.

referencing environment The referencing environment at any program point is the set of bindings visible at that point.

namespace A referencing environment is partitioned into namespaces. Each lookup operation will look up identifiers in only one namespace. As a result, two bindings with the same name but different namespaces do not conflict.

2 Example Program

class Foo(var z : Int)
{
    var x : Int = 0;
    def m(z : Any) : String =
        z match {
            case zz : Main => "Caught you!"
            case zz : Any => "Nevermind"
        };
}

class Main() extends Foo(3)
{
    var y : Boolean = false;
    {
        new IO().out(new Foo().m(this).concat("\n"))
    }
}

3 Questions

(a) What is the referencing environment at the point “Nevermind.”
(b) What is the scope of the formal parameter z?
(c) What namespaces does the Cool referencing environment have?