

### Another example

```

program Main;
  var A, B: integer;

  procedure P;
    begin {P}
      A := A + 1;
      B := B + 1;
    end;

  procedure Q;
    var B: integer;

    procedure R;
      var A: integer;
      begin {R}
        A := 16;
        P;
        write(A, B);
      end;
    begin {Q}
      B := 11;
      R;
      P;
      write(A, B);
    end;

  begin {Main}
    A := 1;
    B := 6;
    P;
    write(A, B);
    Q;
    write(A, B);
  end.

```

### Static chain

Variables represented on the stack are not accessed by name. In a language with static scoping, a variable must, however, be located by moving up the chain of static nesting.

An address of variable V on the stack is composed of two numbers that tell us

- how many activation records up the chain is the record R that contains V,
- how far is V from the beginning of R.

When Main.Q has been called:

Main.Q.B	(0, 3)
Main.A	(1, 3)

When Main.Q.R has been called:

Main.Q.R.A	(0, 3)
Main.Q.B	(1, 3)

When Main.Q.R.P has been called:

Main.A	(1, 3)
Main.B	(1, 4)