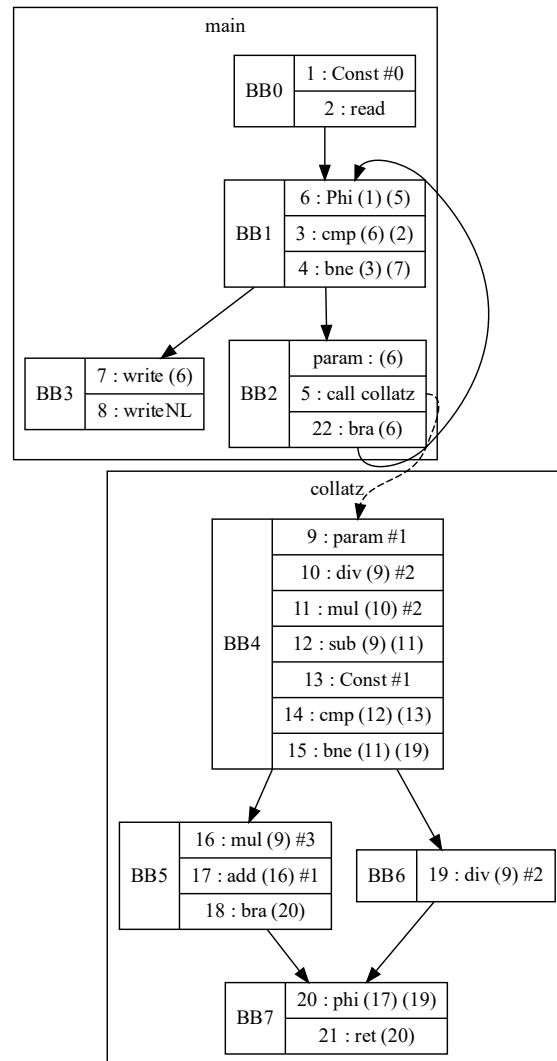Example of Function Call:

```
main
var num, target;

function collatz(n);
var div, prod, result;
{
  let div <- n / 2;
  let prod <- div * 2;
  let result <- 0;
  if ((n-prod) == 1) then
    let result <- (3 * n) + 1;
  else
    let result <- n / 2;
  fi
  return result
}

{
  let num <- 0;
  let target <- inputNum();
  while (num != target) do
    let num <- collatz(num);
  od
  outputNum(num);
  outputNewLine();
}
```

main

| BB0 | 1 : Const #0 |
| | 2 : read |

BB1	6 : Phi (1) (5)
	3 : cmp (6) (2)
	4 : bne (3) (7)

| BB3 | 7 : write (6) |
| | 8 : writeNL |

BB2	param : (6)
	5 : call collatz
	22 : bra (6)

collatz

BB4	9 : param #1
	10 : div (9) #2
	11 : mul (10) #2
	12 : sub (9) (11)
	13 : Const #1
	14 : cmp (12) (13)
	15 : bne (11) (19)

BB5	16 : mul (9) #3
	17 : add (16) #1
	18 : bra (20)

| BB6 | 19 : div (9) #2 |

| BB7 | 20 : phi (17) (19) |
| | 21 : ret (20) |

```
Dot Graph:
digraph G {
  subgraph cluster_2 {
    color=black;
    node [style=record];
    main [shape=record, label="BB0|{1 : Const #0 | 2 : read}"];
    whileCond [shape=record,
    label="BB1|{<phi> 6 : Phi (1) (5) | 3 : cmp (6) (2) | <bne1> 4 : bne (3) (7) }"];
    whileBody [shape=record,
    label="BB2|{param : (6) |
            <call>5 : call collatz |
            <bra1> 22 : bra (6) }"];
    fallThrough [shape=record,
    label="BB3|{7 : write (6) | 8 : writeNL }"];
    main -> whileCond -> whileBody;
    whileBody:bra1 -> whileCond:phi;
    whileCond -> fallThrough;
    label="main";
  }
  subgraph cluster_collatz {
    color=black;
    label="collatz";
    bb4 [shape=record,
    label="BB4|{<collatz> 9 : param #1 |
            10 : div (9) #2 |
            11 : mul (10) #2 |
            12 : sub (9) (11) |
            13 : Const #1 |
            14 : cmp (12) (13) |
            15 : bne (11) (19)}"];
    bb5 [shape=record,
    label="BB5|{16 : mul (9) #3 |
            17 : add (16) #1 |
            18 : bra (20)}"];
    bb6 [shape=record,
    label="BB6|{19 : div (9) #2}"]
    bb7 [shape=record,
    label="BB7|{20 : phi (17) (19) |
            <ret> 21 : ret (20)}"];
    bb4 -> bb5 -> bb7;
    bb4 -> bb6 -> bb7;
  }
  whileBody:call -> bb4:collatz [style=dashed]
}
```