

## PL0 源程序

```
const  m = 7, n = 85;

var    x, y, z, q, r;

procedure  multiply;

    var    a, b;

    begin  a := x;  b := y;  z := 0;

        while b > 0 do

            begin

                if odd b then z := z + a;

                a := 2*a ;  b := b/2 ;

            end

        end;

procedure  divide;

    var    w;

    begin  r := x;  q := 0;  w := y;

        while w ≤ r do w := 2*w ;

        while w > y do

            begin  q := 2*q;  w := w/2;

                if w ≤ r then

                    begin  r := r - w;  q := q+1 end

                end

        end
```

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    end;

procedure gcd;

    var f, g ;

    begin f := x; g := y;

        while f  $\neq$  g do

            begin

                if f < g then g := g - f;

                if g < f then f := f - g;

            end;

        z := f

    end;

begin

    x := m; y := n; call multiply;

    x := 25; y := 3; call divide;

    x := 84; y := 36; call gcd;

end.

```