Never raise your hand to your kids. It leaves your groin unprotected.  
–Red Buttons

1 Algorithms

This section contains two figures. The first is Figure 1 which illustrates an excerpt from a computer program both in pseudocode and as a flowchart.

Is \( x \) equal to \( y \)?

Yes

Let \( x = x + 1 \).

No

If \( x = y \) then
\[ x = x + 1 \]
End If

Figure 1: A small example in pseudocode and as a flowchart

Next, we illustrate the division algorithm using a flowchart in Figure 2.

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Let \( r = r - d \).

Input: integers \( n \) & \( d \)
Local: integers \( q \) & \( r \)

Let \( q = 0 \) and \( r = n \).

Is \( r > d \)?

Yes

Let \( r = r - d \).
Let \( q = q + 1 \).

No

Goto

Return: \( q \) & \( r \)

Figure 2: The division algorithm in flowchart form.

That’s all folks!

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