

Divide problem 3.18

the numbers are

$$74 = 111\ 100$$

$$21 = 010\ 001$$

So, the starting divisor is

$$010\ 001\ 000\ 000$$

and the starting remainder is

$$000\ 000\ 111\ 100$$

7 iterations (6+1). To represent negative remainders

Use two's complement.

The resulting quotient and remainder are

$$\text{Quotient} = 000\ 011 = 3_{\text{eight}}$$

$$\text{Remainder} = 001\ 001 = 11_{\text{eight}}$$