

## DIVISION WORKSHEET

Program \_\_\_\_\_

Date \_\_\_\_\_

Routine \_\_\_\_\_

Name of Field	Length of Field	Decimal Places
Dividend _____	A = _____	C = _____
Divisor _____	B = _____	D = _____
Quotient _____	P = _____	E = _____

Enter greatest possible number of digits in quotient, if known.

## Computation of Character Adjustments

$$G = D + E - C = \underline{\hspace{2cm}}$$

$$H = \underline{\hspace{2cm}} \text{ (If } G > 0, \text{ enter } G. \text{ If not, enter } 0.)$$

$$S = A + H - P = \underline{\hspace{2cm}}$$

Use this column if S is not greater than 0 or if P is not known

Use this column if S is greater than 0

$$F = A + B = \underline{\hspace{2cm}}$$

$$F = A + B - S = \underline{\hspace{2cm}}$$

$$J = F + H + 2 = \underline{\hspace{2cm}}$$

$$J = F + H - S + 2 = \underline{\hspace{2cm}}$$

$$K = B + 1 = \underline{\hspace{2cm}}$$

$$K = B - S + 1 = \underline{\hspace{2cm}}$$

$$L = A + G = \underline{\hspace{2cm}}$$

$$L = A + G - S = \underline{\hspace{2cm}}$$

$$M = A + H + 1 = \underline{\hspace{2cm}}$$

$$M = A + H - S + 1 = \underline{\hspace{2cm}}$$

$$N = L - 1 = \underline{\hspace{2cm}}$$

$$N = L - S - 1 = \underline{\hspace{2cm}}$$

## Required Constants

Count	Label	OP Code	Contents
1	BFIELD	DCW *	
		DC *	
1	ZERO	DCW *	Count must be at least as great as J.
1	FIVE	DCW *	0
			5

## Instructions

Number	OP Code	A-Address	B-Address
1	ZA	ZERO	BFIELD + _____ (J)
2	ZA	_____ (Dividend)	BFIELD + _____ (F)
3	MZ	BFIELD + _____ (F)	BFIELD + _____ (J)
4	MZ	ZERO	BFIELD + _____ (F)
5	D	_____ (Divisor)	BFIELD + _____ (K)
6	A	FIVE	BFIELD + _____ (L)
7	MZ	BFIELD + _____ (M)	BFIELD + _____ (N)

The Quotient is located at BFIELD + N, is signed, and in L digits in length.

## Special Cases

- If the Dividend is known to be unsigned, use MCW for OP code of Instruction (2) and omit Instructions (3) and (4).
- If the Dividend is known to be signed and positive, omit Instruction (3).
- If the Quotient is known to be positive, omit Instruction (7), and reduce each character adjustment by 1. The Quotient will always be unsigned.

Instructions for the common combination of special cases (1) and (3):

ZA	ZERO	BFIELD + _____	(J-1)
MCW	_____ (Dividend)	BFIELD + _____	(F-1)
D	_____ (Divisor)	BFIELD + _____	(K-1)
A	FIVE	BFIELD + _____	(L-1)

The Quotient is located at BFIELD + N, is unsigned, and is L digits in length.