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;Comp Arch 416

;Chapter 5 - problem 26

BR main ;Branch around data

num: .BLOCK 2 ;Storage for int input

num1: .BLOCK 2 ;Storage for int input

num2: .BLOCK 2 ;Storage for int input

num3: .BLOCK 2 ;Storage for int input

;

main: DECI num,d ;decimal input, to var num

LDWA num,d ;load var num

ASRA ;divide by 2

ASRA ;divide by 4

ASRA ;divide by 8

ASRA ;divide by 16

STWA num1,d ;store word/calculation to num1

LDWA num1,d ;load word (num1)

ASLA ;mult by 2

ASLA ;mult by 4

ASLA ;mult by 8

ASLA ;mult by 16

STWA num2,d ;store word/calculation to num2

LDWA num,d ;load word (num)

SUBA num2,d ;subtract num2

STWA num3,d ;store word/calculation to num3

STRO msg,d ;string out defined msg

DECO num3,d ;decimal output num3

;DECO tmp,d ;decimal out tmp

STOP

msg: .ASCII "num = \x00"

.END

