\*\*Arthur Flores

\*\*masc 0200

\*

ORG $7000

GCD:

link A6,#0 \*set return address and A6

movem.l D1/D2,-(SP) \*move D1/D2 onto stack

move.w 8(A6),D1 \*get a

move.w 10(A6),D2 \*get b

tst.w D2 \*test if b is 0

bne continue \*branch if not equal to 0

move.w D1,D0 \*return a

bra done \*branch to done

continue:

ext.l D1 \*extend D1

divu.w D2,D1 \*divide b into a

swap D1 \*swap D1

ext.l D1 \*extend D1

move.w D1,-(SP) \*move D1 onto stack

move.w D2,-(SP) \*move D2 onto stack

jsr GCD \*call GCD again

adda.l #4,SP \*get rid of garbage

done:

movem.l (SP)+,D1/D2 \*add D1/D2 onto stack

unlk A6 \*unlink A6

rts \*return to subroutine

end