\*----------------------------------------------------------------------  
\* Programmer: Quang Trinh   
\* Class Account: cssc0855  
\* Assignment or Title: prog1  
\* Filename: prog1.s  
\* Date completed: 02.27.18   
\*----------------------------------------------------------------------  
\* Problem statement: Convert integers into strings.  
\* Input: Read integers in the range 0..20 from the keyboard.  
\* Output: Print English word that corresponds with the number entered.  
\* Error conditions tested: N/A  
\* Included files: prog1.s  
\* Method and/or pseudocode: N/A   
\* References: N/A  
\*----------------------------------------------------------------------  
\*  
       ORG     $0  
       DC.L    $3000           \* Stack pointer value after a reset  
       DC.L    start           \* Program counter value after a reset  
       ORG     $3000           \* Start at location 3000 Hex  
\*  
\*----------------------------------------------------------------------  
\*  
#minclude /home/cs/faculty/riggins/bsvc/macros/iomacs.s  
#minclude /home/cs/faculty/riggins/bsvc/macros/evtmacs.s  
\*  
\*----------------------------------------------------------------------  
\*  
\* Register use  
\*  
\*----------------------------------------------------------------------  
\*  
start:  initIO                  \* Initialize (required for I/O)  
 setEVT \* Error handling routines  
\* initF \* For floating point macros only   
 lineout title  
 lineout newline  
 lineout prompt  
 linein buffer  
 cvta2 buffer,D0  
 mulu #12,D0 \*index\*12  
 lea num,A0  
 adda.l D0,A0 \*source  
 lea number,A1 \*destination  
 move.l (A0)+,(A1)+  
 move.l (A0)+,(A1)+  
 move.l (A0)+,(A1)  
 lineout answer   
      break                    \* Terminate execution  
\*  
\*----------------------------------------------------------------------  
\*       Storage declarations  
num: dc.b 'zero.      ',0  
 dc.b 'one.       ',0  
 dc.b 'two.       ',0  
 dc.b 'three.     ',0  
 dc.b 'four.      ',0  
 dc.b 'five.      ',0  
 dc.b 'six.       ',0  
 dc.b 'seven.     ',0  
 dc.b 'eight.     ',0  
 dc.b 'nine.      ',0  
 dc.b 'ten.       ',0  
 dc.b 'eleven.    ',0  
 dc.b 'twelve.    ',0  
 dc.b 'thirteen.  ',0  
 dc.b 'fourteen.  ',0  
 dc.b 'fifteen.   ',0  
 dc.b 'sixteen.   ',0  
 dc.b 'seventeen. ',0  
 dc.b 'eightteen. ',0  
 dc.b 'nineteen.  ',0  
 dc.b 'twenty.    ',  
newline: dc.b 0  
title: dc.b 'Program #1, Quang Trinh, cssc0855',0  
prompt: dc.b 'Please enter an integer',0  
buffer: ds.b 80  
answer: dc.b 'The number you entered is '  
number: ds.b 14  
        end