L (Load Fullword) is used to copy the fullword stored in the memory location designated by operand 2 into the register specified by operand 1. Only the rightmost 32 bits (32-63) of the register are modified by this operation. Bits 0-31 are unchanged.

Consider the following example,

```
L R9, AFIELD
```

```
R9 (Before)   R9 (After)
11 22 33 44 55 66 77 88          11 22 33 FF FF FF FF
```

```
Memory
00 FF FF FF FF 00 00 00 ...
```

The contents of the fullword “AFIELD” are copied to register 9, destroying the previous values in R9. The fullword is unchanged by this operation.

Since L is an RX instruction, an index register may be coded as part of operand 2 (see Explicit Addressing).
Some Unrelated Loads

R4 = X’12121212’
R5 = X’00000008’
R6 = X’00000004’

AFIELD   DC  F’4’       AFIELD = X’00000004’
BFIELD   DC  F’-1’      BFIELD = X’FFFFFFFF’
CFIELD   DC  F’0’       CFIELD = X’00000000’

L   R4,AFIELD     R4 = X’00000004’
L   R4,AFIELD(R6) R4 = X’FFFFFFFF’
L   R4,AFIELD(R5) R4 = X’00000000’
L   R6,AFIELD(R6) R6 = X’FFFFFFFF’

CONSIDER THE NEXT TWO CONSECUTIVELY EXECUTED LOADS
L   R5,AFIELD     R5 = X’00000004’
L   R6,AFIELD(R5) R6 = X’FFFFFFFF’