MOV (to/from SP)

Move between register and stack pointer

: Rd = Rn.

This is an alias of [ADD (immediate)](#). This means:

- The encodings in this description are named to match the encodings of [ADD (immediate)](#).
- The description of [ADD (immediate)](#) gives the operational pseudocode, any constrained unpredictable behavior, and any operational information for this instruction.

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
sf	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Rn					Rd				

op S   sh   imm12

32-bit (sf == 0)

        MOV <Wd|WSP>, <Wn|WSP>

is equivalent to

        ADD <Wd|WSP>, <Wn|WSP>, #0

and is the preferred disassembly when
(Rd == '11111' || Rn == '11111').

64-bit (sf == 1)

        MOV <Xd|SP>, <Xn|SP>

is equivalent to

        ADD <Xd|SP>, <Xn|SP>, #0

and is the preferred disassembly when
(Rd == '11111' || Rn == '11111').

Assembler Symbols

<Wd|WSP>   Is the 32-bit name of the destination general-purpose register or stack pointer, encoded in the "Rd" field.

<Wn|WSP>   Is the 32-bit name of the source general-purpose register or stack pointer, encoded in the "Rn" field.

<Xd|SP>	Is the 64-bit name of the destination general-purpose register or stack pointer, encoded in the "Rd" field.
<Xn|SP>	Is the 64-bit name of the source general-purpose register or stack pointer, encoded in the "Rn" field.

Operation

The description of [ADD (immediate)](#) gives the operational pseudocode for this instruction.

[Base Instructions](#)	[SIMD&FP Instructions](#)	[SVE Instructions](#)	[SME Instructions](#)	[Index by Encoding](#)	[Sh Pseud](#)