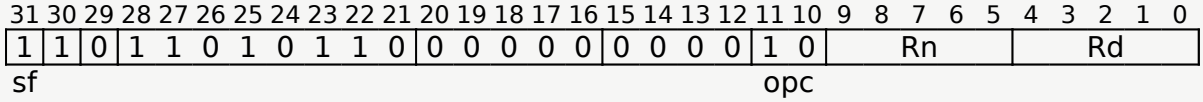
REV32

Reverse bytes in 32-bit words reverses the byte order in each 32-bit word of a register.




```
REV32 <Xd>, <Xn>
```

```
if opc == '11' && sf == '0' then UNDEFINED;

integer d = UInt(Rd);
integer n = UInt(Rn);

constant integer datasize = 32 << UInt(sf);
constant integer container_size = 8 << UInt(opc);
```

Assembler Symbols

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

Operation

```
bits(datasize) operand = X[n, datasize];
bits(datasize) result;

constant integer containers = datasize DIV container_size;
for c = 0 to containers-1
    bits(container_size) container = Elem[operand, c, container_size];
    Elem[result, c, container_size] = Reverse(container, 8);

X[d, datasize] = result;
```

Operational information

If PSTATE.DIT is 1:

- The execution time of this instruction is independent of:
  - The values of the data supplied in any of its registers.
  - The values of the NZCV flags.
- The response of this instruction to asynchronous exceptions does not vary based on:
  - The values of the data supplied in any of its registers.
  - The values of the NZCV flags.

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