49 For naturals n and m, we can express the statement "n is a factor of m" formally as

m: $n \times nat$

(a) What are the factors of 0 ?

(b) What is 0 a factor of?

(c) What are the factors of 1 ?

(d) What is 1 a factor of?

After trying the question, scroll down to the solution.

(a) What are the factors of 0 ?

§ For any natural n we have 0: $n \times nat$, so all naturals are factors of 0 .

(b) What is 0 a factor of?

§ m: $0 \times nat$ requires m to be 0 , so 0 is a factor of only 0 .

(c) What are the factors of 1 ?

§ 1: $n \times nat$ requires n to be 1 , so only 1 is a factor of 1 .

(d) What is 1 a factor of?

§ For any natural m we have m: $1 \times nat$, so 1 is a factor of all naturals.