M51 - Nota Dene

@
$$E = \{1, 2, 3\}$$

 $P(E) = \{\emptyset, \{1\}, \{2\}, \{3\}, \{1, 2\}, \{1, 3\}, \{2, 3\}, E\}$

- À propos de la définid des entiers:

■ 1 ≠ 0 simon card log = card φ

dit automent log & Ø st équipotents.

dit automt ∃ bijco log → Ø. ?!

non-vide → vide

-->m mg + ginislmt PR m+1 € 20,1,..., ng.

@ \mathbb{N} est imfimi: $\int_{\mathbb{N}} \mathbb{N} \mathbb{N}^*$ est une biject.

M & M * st équipotents.

Assi (i) \Rightarrow (ii) spps i $\forall E = i(N) \cup (E \setminus i(N))$ $f: E \rightarrow E, x \mapsto x \in \mathcal{A}(N), \text{ cur } m' \text{ est pos } \text{ surjects}$ $si \ x \notin i(N): f(n) = n$ $si \ x \in i(N): \exists! m \in \mathbb{N}, x = i(N) \rightarrow f(n) = i(m+1).$ puis usu ppté imjectivité • ê équipotent à $\mathbb{N} \rightleftharpoons \hat{e}$ ens infini $\mathbb{N} \xrightarrow{\text{bij}} E$ $1 \longrightarrow 1^{\circ} \text{ élt}
2 \longrightarrow 2^{\circ} \text{ élt}$

© ens dénombrable $IV \rightarrow 2IV$ $m \mapsto 2m$

M51 - Nota Dene

@ E = {1,2,3} P(E) = { Ø, {13, {2}, {33, {1,23, {4,33, 12,33, E}.

A propos de la définit des entiers:

 $1 \neq 0$ simon card $\log = \text{card } \phi$

dit automent 208 & ø st équipotents.

dit automt 3 bijco 202 - ø. ?!

non-vide

vide

-->m mg + ginirlmt PR m+1 € 20,1,..., n.g.

@ \mathbb{N} est imfimi: $\int \mathbb{N} \longrightarrow \mathbb{N}^*$ est une biject.

M & M * st équipotents.

J: E > E, 2+ > si 20 € i(N), cur m'est pas surjectef 28th "q hinds of surjective? imjertive?

 $sin \notin i(N): f(n) = n$ $min \in i(N): \exists ! m \in (N), x = i(N) \rightarrow f(n) = i(m+1).$

puis usa ppté imjectivité

• ê équipotent à $\mathbb{N} \subset \hat{e}$ ems infini $\mathbb{N} \to \hat{e}$ ens infini $\mathbb{N} \to \hat{e}$ ens infini $\mathbb{N} \to \hat{e}$ elt.

@ ens dénombrable

 $N \rightarrow 2 N$

m → 2m ∃ N D E © équipatonts/fimi/ASE = E(g) à pie E ds† E Vm & NV, cord (E) ≠ m.

2 := {y E E | a Roys

compatible a Ry => f(y) = f(a) $E/\mathcal{R} := \{ \bar{n} \mid n \in E \} \subset \mathcal{P}(E)$ { Partiode Esi Ain Aj = \$

(3) VaEH, VBEH, ab-1 EH

<u>ce</u> => partio.

UA:=E

 $\underline{\mathcal{D}}$ $\underline{k} \in \mathbb{Z}/m\mathbb{Z}$, $\langle \overline{k} \rangle = \overline{\mathbb{Z}}/m\mathbb{Z}$ $c = \lambda k$ est promies \overline{u} n.

Louver (Til) de Bézont.

ASK (i) => (ii) spps i 4 E = i(N) U (E \ i(N)) him def! MDG? surjective? injective?

(32) (423) (32) = (13e) (423) (4234) (432) = (2314)

€ 7= (3352)(4W(67) € 9g; \ € 9g.

> 1 0 200, 0 € 99 3 = 2 conjugués de 7).

~~~= [~(3352)~-][~(14)~-][~(67)~-] = (0(0) (3) (5) (0) (0(4) (0(6) 0(7))

à mi forme que T: 4 eyck o 2 cycle o 2 cycle.

 $\lambda = (1234)(56)(78)$ , and  $\lambda = ppom(2,4) = 2$ 

THE REPORT OF THE PROPERTY OF THE SAME OF

The set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of

Englished Company of the Company of

The second of the second secon

The War of the

s : prosont le in définité des entiers:

distraction for a p at squipotent.

-- son my : gindrin: (PP) med & fording a g.

John Sir - Ed String E. Smith till

e simple of the part of the light.

List S winen could gog = cand of

[ 15 = 16, 145, 123 135, 1425, 1435, 1435, 1435, 1435] E.J.

(a) h: 1 / (2) 5 5