

## Inleveropgave 1 - 17 November

- 1 (2pt) How many elements of  $P(\{a, b, c\})$  contain the element  $a$ ?
- 2 (2pt) Does  $X \in P(P(X))$  hold? And  $\emptyset \in P(P(X))$ ? If  $X$  has  $n$  elements, how many elements has  $P(P(X))$ ?
- 3 (3pt) If  $|A \times B| = 1$ , how many elements have  $A$  and  $B$ ? If  $|A \times B| = 0$ , what could you say about the number of elements of  $A$  and  $B$ ? Explain your answer.
- 4 (3pt) When is  $X \setminus Y = X$ ? Explain your answer.