

# Exercise 1

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1. Find the power set  $R^3$  of  $R = (1, 1), (1, 2), (2, 3), (3, 4)$ . Check your answer with the script `powerrelation.m` and write a LATEX document with the solution step by step

$$R^n \begin{cases} R & n = 1 \\ \{(a, b) \mid \exists x \in A, (a, x) \in R^{n-1} \wedge (x, b) \in R\} & n > 1 \end{cases}$$

By doing this formula we will get as answer:

```
powerrelation[(1, 1), (1, 2), (2, 3), (3, 4)]  
Ans = [11], [12], [13], [14]
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