**Lecture 1**

1. Sets are given $A=\left\{-2,-1,0,1,2,3,5\right\}$, $B=\left\{0,1,2,5\right\}$, $C=\left\{1,2\right\}$. Calculate:

a)$ A∪B$

b) $A∩B$

c) $A-B$

d) $B-A$

2. Sets are given $A=\left〈-5;3\right〉$ a $B=\left(-4;1\right)$. Calculate:

a)$ A∪B$

b) $A∩B$

c) $A-B$

d) $B-A$

3. Complete the table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| set | max | min | sup | inf |
| $$A=\left〈-12;7\right〉$$ |  |  |  |  |
| $$B=\left(1;3\right)$$ |  |  |  |  |
| $$C=\left〈-2\right.;\left.\infty \right)$$ |  |  |  |  |
| **R** |  |  |  |  |
| **N** |  |  |  |  |

7. Calculate

$$\sum\_{n=1}^{4}\frac{1}{n}$$

$$\prod\_{n=1}^{5}\left(n+1\right)$$